

Computer Homework 1

จัดทำโดย

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เสนอ

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(Introduction to Computational Intelligence)

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หลักการทำงานของโปรแกรม

1. รับค่า Input ที่กำหนดให้โปรแกรมได้แก่
 - จำนวนของโหนดใน Hidden layer และจำนวนของ Hidden layer
 - จำนวน cross validation
 - ของมูลที่ต้องการนำมา Train MLP
 - ค่า Learning rate
 - ค่า momentum rate
 - พีกซัน Activation
 - จำนวนรอบในการ Train (epoch)
2. สุ่มค่า Weight แต่ละเส้นที่เชื่อมต่อแต่ละ hidden node และสุ่มค่า bias ของแต่ละ node
3. ทำการ Feedforward ไปยังแต่ละ node จนได้ผลลัพธ์สุดท้าย
4. นำผลลัพธ์สุดท้ายเทียบกับค่าที่ต้องการ เพื่อหาค่า error จากนั้นทำการ back propagation เพื่อปรับค่า weight ในแต่ละ node ตามสมการและขั้นตอนดังต่อไปนี้
 - หากค่า error จากสมการดังต่อไปนี้

$$e_j(t) = d_j(t) - y_j(t)$$

e คือ ค่า error

d คือ ค่า output ที่ต้องการ

y คือ ค่าผลลัพธ์ที่ได้จากโปรแกรม

- นำค่า error ที่ได้จากการด้านบน ไปหา gradient จากสมการ

$$\delta_j(t) = e_j(t) \varphi'_j(v_j(t))$$

δ คือ ค่า gradient

e คือ ค่า error

v คือ ค่าผลลัพธ์ Node สุดท้ายที่ผ่าน activation function

- นำค่า gradient ที่ได้จากการด้านบน ไปหา gradient ใน node ก่อนหน้าจากการดังนี้

$$\delta_j^{(l)}(t) = \varphi_j^{(l)}(v_j^{(l)}(t)) \sum_k \delta_k^{(l+1)}(t) w_{kj}^{(l+1)}(t)$$

- นำค่า gradient ที่ได้ไปคำนวนเพื่อปรับ weight จากสมการดังนี้

$$\Delta w_{ji}^{(l)}(t) = \alpha \Delta w_{ji}^{(l)}(t-1) + \eta \delta_j^{(l)}(t) y_i^{(l-1)}(t)$$

Δw คือ ค่าของ weight ที่จะมีการเปลี่ยนแปลง

α คือ ค่า momentum rate

η คือ ค่า learning rate

δ คือ ค่า gradient

y คือ ผลลัพธ์ที่ได้จาก node ดังกล่าว

รูปแบบการทดลอง

1. นำข้อมูลที่ได้มา visualization เพื่อให้เห็นทิศทางและความเป็นไปได้ของการฝึกสอน โมเดล
2. ทดลองเปลี่ยนแปลงค่า learning rate
 - เปลี่ยนแปลงค่า learning rate ในช่วง [0.01, 1.00] โดยการเปลี่ยนแปลงครั้งละ 0.01
 - รูปแบบ neural network คือ 8-10-6-1
 - 10 % cross validation
 - ค่า momentum rate คือ 0.07
 - Activation function คือ sigmoid
 - จำนวนรอบในการ Train คือ 1000 epoch
3. ทดลองเปลี่ยนแปลงค่า momentum rate
 - เปลี่ยนแปลงค่า momentum rate ในช่วง [0.01, 1.00] โดยการเปลี่ยนแปลงครั้งละ 0.01
 - รูปแบบ neural network คือ 8-10-6-1
 - 10 % cross validation
 - ค่า learning rate คือ 0.12
 - Activation function คือ sigmoid
 - จำนวนรอบในการ Train คือ 1000 epoch
4. ทดลองเปลี่ยนจำนวนรอบการ train
 - จำนวนรอบในการ Train คือ 10, 50, 100, 250, 500, 1000, 2000 epoch
 - รูปแบบ neural network คือ 8-10-6-1
 - 10 % cross validation
 - ค่า learning rate คือ 0.12, 0.16
 - ค่า momentum rate คือ 0.22, 0.57
 - Activation function คือ sigmoid

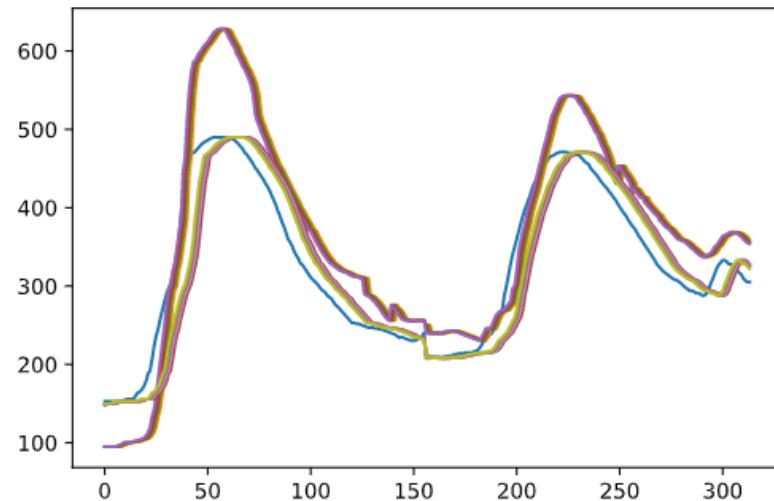
5. ทดสอบเปลี่ยนแปลงจำนวน node และจำนวนของ hidden layer

- สร้างแบบ neural network คือ 8-N-1 และ 8-N-M-1 โดย N, M คือ จำนวนของ node กำหนดให้อยู่ในช่วง [1, 12]
- 10 % cross validation
- ค่า learning rate คือ 0.12, 0.16
- ค่า momentum rate คือ 0.22, 0.57
- Activation function คือ sigmoid
- จำนวนรอบในการ Train คือ 1000 epoch

ผลการทดลอง

1. นำข้อมูลที่ได้มา visualization เพื่อให้เห็นพิศทางและความเป็นไปได้ของการฝึกสอนโมเดล

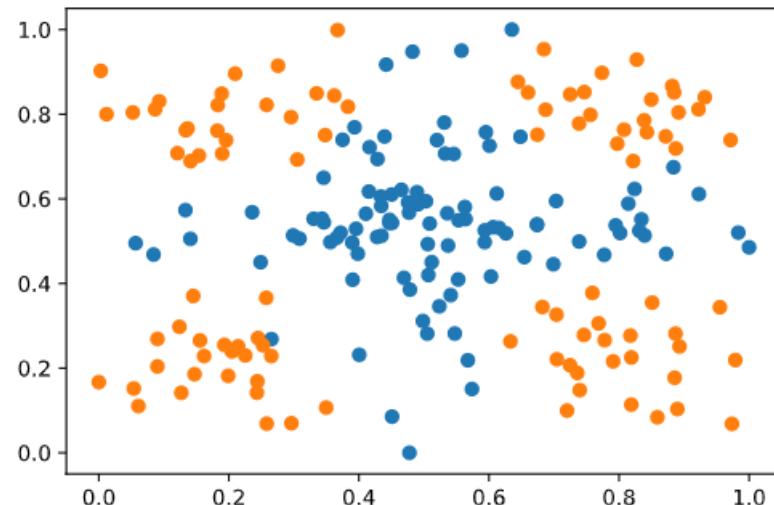
- Flood data set



กราฟเส้นแสดงผลข้อมูลการทำนายระดับน้ำ

จากข้อมูลที่ได้นำมา visualization พบว่า เส้นสีน้ำเงินคือ ค่าทำนายระดับน้ำ มีความสัมพันธ์ที่อยู่ในช่วงของระดับน้ำในเวลา ก่อนหน้าอย่างเห็นได้ชัด

- cross



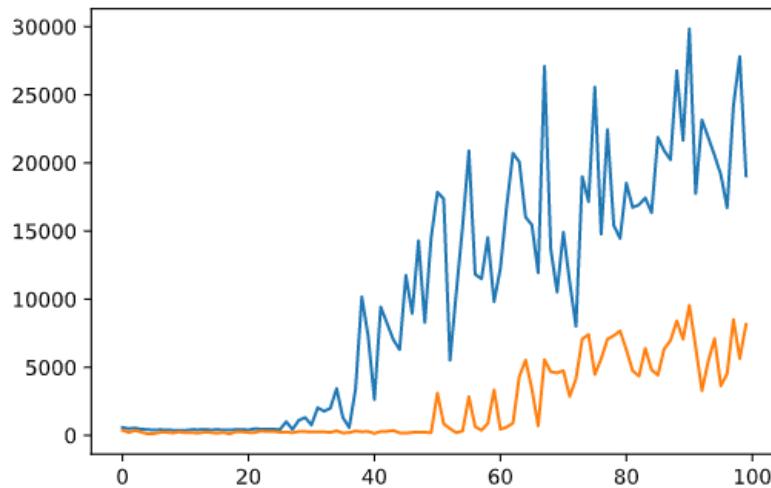
กราฟแสดงผลกลุ่มของข้อมูล

จากข้อมูลที่ได้นำมา visualization พบว่า จุดสีน้ำเงิน และจุดสีส้ม เป็นกลุ่มข้อมูลที่ต่างชนิดกัน ดังนั้นจึงสามารถใช้วิธีการ classification ในการคัดแยกกลุ่มของข้อมูลออกจากกัน

2. ทดลองเปลี่ยนแปลงค่า learning rate

ทำการทดลองเปลี่ยนค่าตัวแปร learning rate เพื่อหาค่าที่เหมาะสม โดยในการทดลองใช้ค่า learning rate ตั้งแต่ 0.01 ถึง 1.00 โดยทำการเปลี่ยนค่าเพิ่มขึ้นครั้งละ 0.01 ได้ผลลัพธ์ดังนี้

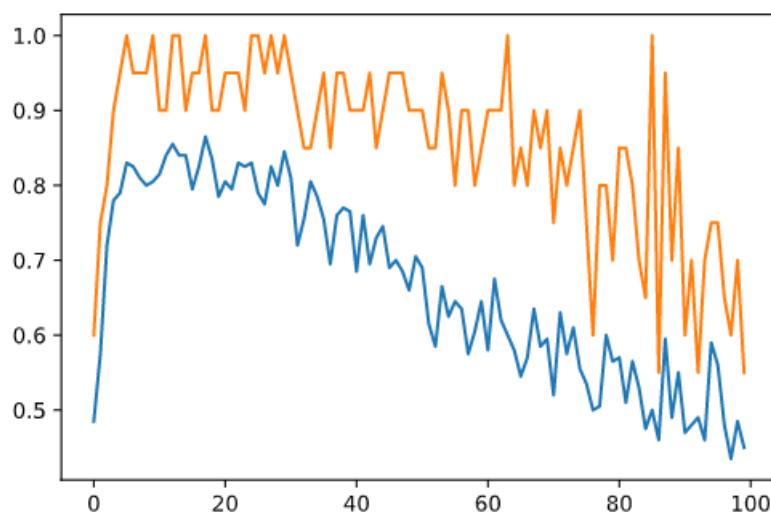
- Flood data set



แกนตั้ง MSE , แกนนอน ค่า learning rate จาก 0.01 - 1.00

กราฟแสดงผลความคาดเดือนของโมเดล Flood data set จากการเปลี่ยนค่า learning rate

- cross



แกนตั้ง ค่าความถูกต้อง, แกนนอน ค่า learning rate จาก 0.01 - 1.00

กราฟแสดงผลความคาดเดือนของโมเดล cross จากการเปลี่ยนค่า learning rate

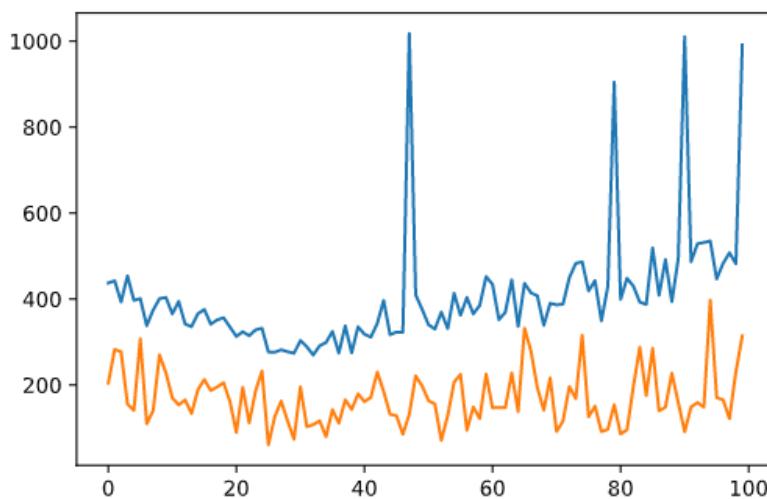
จากการทดลองเปลี่ยนแปลงค่าตัวแปร learning rate จากช่วง 0.01 ถึง 1.00 พบรค่าที่เหมาะสม สมอยู่ในช่วง 0.01 ถึง 0.25 ให้ผลลัพธ์ที่ดีที่สุดในการใช้กับข้อมูล Flood data set และค่า learning rate ที่ดีที่สุดคือ 0.16 ให้ผลลัพธ์ที่ดีที่สุดในการใช้กับข้อมูล cross โดยค่า learning rate ส่งผลต่อ

การเรียนรู้ยิ่งปรับค่ามากยิ่งมีการเปลี่ยนแปลง weight มาก และหากปรับค่ามากเกินไปจะทำให้ค่า weight ไม่เสถียร ส่งผลให้คำตอบที่ได้อาจจะไม่เข้าใกล้ผลลัพธ์ที่ต้องการ

3. ทดลองเปลี่ยนแปลงค่า momentum rate

ทำการทดลองเปลี่ยนค่าตัวแปร learning rate เพื่อหาค่าที่เหมาะสม โดยในการทดลองใช้ค่า momentum rate ตั้งแต่ 0.01 ถึง 1.00 โดยทำการเปลี่ยนค่าเพิ่มขึ้นครั้งละ 0.01 ได้ผลลัพธ์ดังนี้

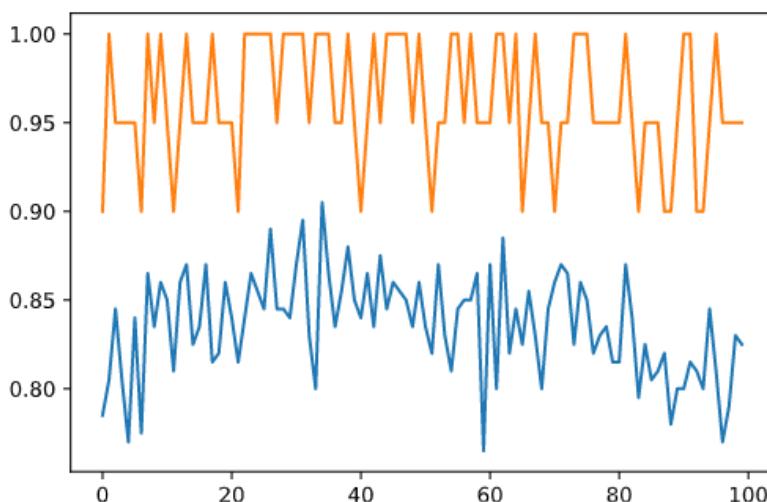
- **Flood data set**



แกนต์ MSE , แกนนอน ค่า momentum rate จาก 0.01 - 1.00

กราฟแสดงผลความคาดเคลื่อนของ โนมเดล Flood data set จากการเปลี่ยนค่า momentum rate

- **cross**



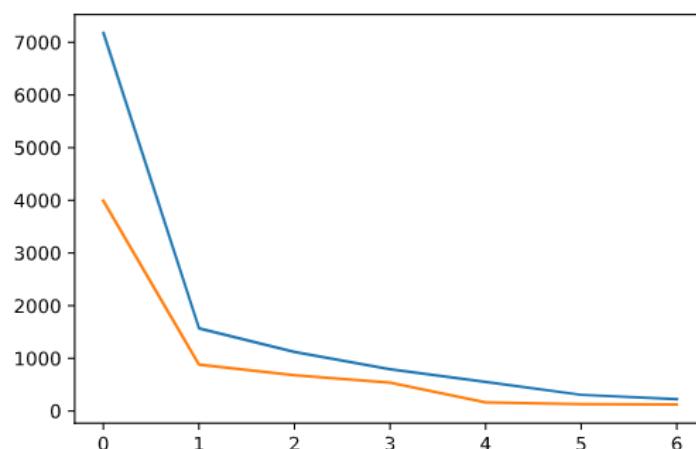
แกนต์ ค่าความถูกต้อง, แกนนอน ค่า learning rate จาก 0.01 - 1.00

กราฟแสดงผลความคาดเคลื่อนของ โนมเดล cross จากการเปลี่ยนค่า learning rate

จากการทดลองเปลี่ยนแปลงค่าตัวแปร momentum rate จากช่วง 0.01 ถึง 1.00 พบว่า ค่า momentum rate ที่ดีที่สุดคือ 0.57 ให้ผลลัพธ์ที่ดีที่สุดในการใช้กับข้อมูล cross และค่า momentum rate ที่ดีที่สุดคือ 0.22 ให้ผลลัพธ์ที่ดีที่สุดในการใช้กับข้อมูล Flood data set โดยค่า learning rate ต่างผลต่อการเรียนรู้ ยิ่งปรับค่ามากยิ่งมีการเปลี่ยนแปลง weight มาก และหากปรับค่ามากเกินไปจะทำให้ค่า weight ไม่เสถียร ส่งผลให้คำตอบที่ได้อาจจะไม่เข้าใกล้ผลลัพธ์ที่ต้องการ

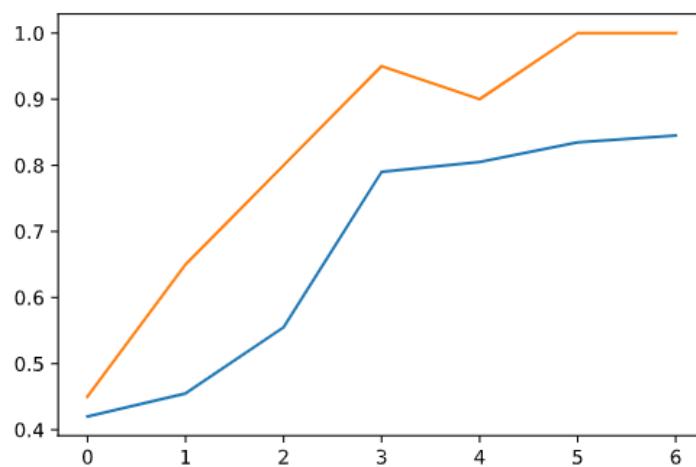
4. ทดลองเปลี่ยนจำนวนรอบการ train

- **Flood data set**



แกนต์ MSE , แกนนอน จำนวน epoch [10, 50, 100, 250, 500, 1000, 2000]
กราฟแสดงผลความคาดเคลื่อนของโมเดล Flood data set จากการเปลี่ยนจำนวน epoch

- **cross**

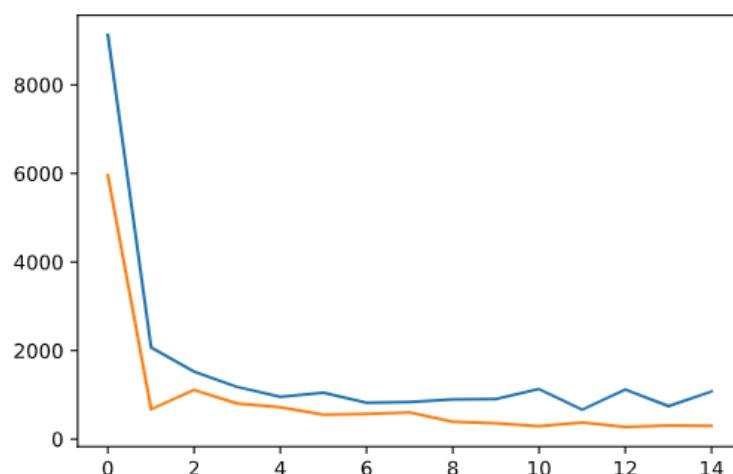


แกนต์ ค่าความถูกต้อง, แกนนอน จำนวน epoch [10, 50, 100, 250, 500, 1000, 2000]
กราฟแสดงผลความคาดเคลื่อนของโมเดล cross จากการเปลี่ยนจำนวน epoch

จากการทดลองพบว่าจำนวนครั้งในการฝึกสอนมีพิสูจน์แล้วว่าปรับแต่งกับค่าความถูกต้องจากกราฟที่แสดงในด้านบน ซึ่งจะสังเกตได้ว่าผลลัพธ์จากการฝึกสอนด้วยข้อมูล Flood data set หากมีจำนวนการฝึกสอนมากไปอาจจะเกิดการ overfit ได้ และการฝึกสอนด้วยข้อมูล cross ไม่สามารถทำให้ค่าความถูกต้องเฉลี่ยสูงไปกว่า 0.9 ได้ เนื่องจากการที่ทำการ visualization จากด้วยข้อที่ 1 พบว่าข้อมูลมีการตัดกัน ทำให้ไม่สามารถให้ค่าความถูกต้องได้มากกว่านี้

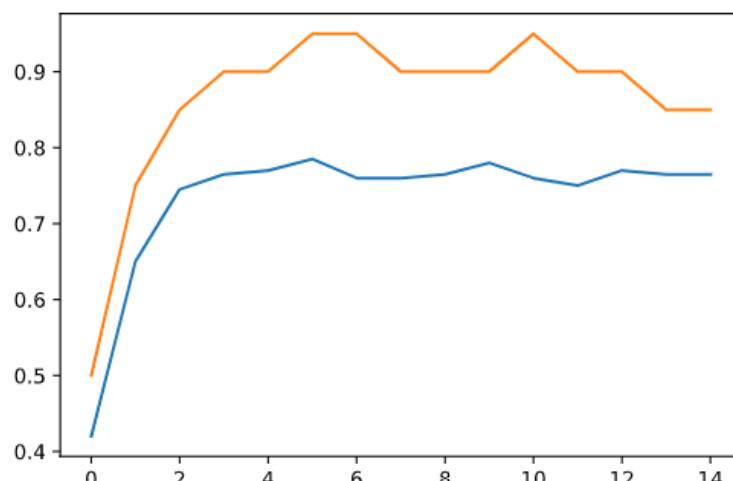
5. ทดลองเปลี่ยนแปลงจำนวน node และจำนวนของ hidden layer

- Flood data set



แกนต์ MSE , แกนนอน จำนวนโภนดใน 1 เลเยอร์
กราฟแสดงผลความคาดเคลื่อนของโมเดล *Flood data set*

- cross



แกนต์ MSE , แกนนอน จำนวนโภนดใน 1 เลเยอร์
กราฟแสดงผลความคาดเคลื่อนของโมเดล *cross*

จากผลการทดลองพบว่าจำนวนเลเยอร์ที่เพิ่มขึ้น ไม่มีผลต่อค่าตอบแทนัก ต้องทดลองเปลี่ยนแปลงจำนวนโหนดไปเรื่อยๆ เพื่อให้เหมาะสมกับข้อมูล

ภาคผนวก

In [1]:

```
import numpy as np
import matplotlib.pyplot as plt
```

In [2]:

```
def load_txt(path):
    f=open(path, "r")
    if(path[-3:] == 'txt'):
        contents =f.readlines()

    dataset = np.zeros((len(contents)-2,len(contents[2].split('\t'))-1))
    label = np.zeros((len(contents)-2))

    for i in range(len(contents)-2):
        x = contents[i+2].split("\t")
        for j in range(len(x)):
            if j != len(x) - 1 :
                dataset[i][j] = float(x[j])
            else :
                label[i] = float(x[j][-1])
        else :
            contents =f.readlines()
            n_data = int(len(contents)/3)
            dataset = np.zeros((n_data,2))
            label = np.zeros((n_data,2))
            j = 0
            count = 0
            for i in range(len(contents)):
                if(j == 1):
                    dataset[count][0] = float(contents[i].split()[0])
                    dataset[count][1] = float(contents[i].split()[1])
                if(j == 2):
                    label[count][0] = int(contents[i].split()[0])
                    label[count][1] = int(contents[i].split()[1])
                    count = count + 1
                j = -1
                j += 1

    return dataset,label

def norm(data_r):
    data = data_r.copy()
    datanorm = (data - data.min())/(data.max() - data.min())
    return datanorm, data.max(), data.min()

def convert_norm(pred,mx,mn):
    return pred*(mx - mn) + mn
```

In [3]:

```
import numpy as np
class NN :

    def __init__(self, shape, nueral_shape, acti_func):
        shape[1:1] = nueral_shape
        self.shape = shape
        self.act_func = acti_func
        self.weights = self.init_weights(self.shape)
        self.outputs = None
        self.deltas = None
        self.del_old_weights = None

    def init_old_weights(self, network_shape):
        weight_arrays = []
        for i in range(0, len(network_shape) - 1):
            cur_idx = i
            next_idx = i + 1
            weight_array = np.zeros((network_shape[next_idx], network_shape[cur_idx]))
            weight_arrays.append(weight_array)

        return weight_arrays

    def init_weights(self, network_shape):
        weight_arrays = []
        for i in range(0, len(network_shape) - 1):
            cur_idx = i
            next_idx = i + 1
            weight_array = 2 * np.random.rand(network_shape[next_idx], network_shape[cur_idx]) - 1
            weight_arrays.append(weight_array)

        return weight_arrays

    def predict(self, sample):

        current_input = (sample.copy()).T
        outputs = []
        for network_weight in self.weights:
            current_output_temp = np.dot(network_weight, current_input)
            current_output = self.acti_func(current_output_temp)
            outputs.append(current_output)
            current_input = current_output

        if(self.shape[-1] == 1) :
            return current_output.T
        else :
            tp = None
            fp = None
            for i in range(len(outputs[-1])):
                if( i == 0) :
                    tp = outputs[-1][i]
                else :
                    fp = outputs[-1][i]
            tp = np.vstack((tp, fp)).T
        return np.argmax(tp, axis=1)

    def train(self, sample, d_out, training_rate, momentum_rate, epoch, show=True):
        sample_T = (sample.copy()).T
        d_out_T = (d_out.copy()).T
```

```

for i in range(epoch):
    self.FW_NN(sample_T)
    self.BW_NN(d_out_T)
    self.update_weights(sample_T,learning_rate,momentum_rate,i)
    sqe = self.sum_sqraure_error(self.predict(sample),d_out_T)
    if(show and i % 10 == 0):
        print('Epoch : #' +str(i)+', Sum Square Error : '+str(sqe))
    if sqe < np.finfo(np.float32).eps :
        break

def FW_NN(self,input):

    current_input = input
    outputs = []
    for w in self.weights:
        current_output_tmp = np.dot(w, current_input)
        current_output = self.acti_funct(current_output_tmp)
        outputs.append(current_output)
        current_input = current_output
    self.outputs = outputs

def BW_NN(self,d_out):

    deltas = []
    O_error = d_out - self.outputs[len(self.outputs)-1]
    O_delta = O_error *self.derivative_acti_funct(self.outputs[len(self.outputs)-1])
    deltas.append(O_delta)

    cur_delta = O_delta
    back_idx = len(self.outputs) - 2

    for w in self.weights[::-1][:-1]:
        hidd_error = np.dot(w.T, cur_delta)
        hidd_delta = hidd_error * self.derivative_acti_funct(self.outputs[back_idx])
        deltas.append(hidd_delta)
        cur_delta = hidd_delta
        back_idx -= 1

    self.deltas = deltas

def update_weights(self,sample,learning_rate,momentum_rate,count):
    index_current_weight = len(self.weights) - 1
    current_dels = []
    for d in self.deltas:
        sample_used = None
        if index_current_weight - 1 < 0:
            sample_used = sample
        else:
            sample_used = self.outputs[index_current_weight - 1]

        current_delta = learning_rate*np.dot(d, sample_used.T)

        if(count == 0) :
            self.weights[index_current_weight] += current_delta
        else :
            self.weights[index_current_weight] += momentum_rate*self.del_old_weights[index_current_weight]+ current_delta
        index_current_weight -= 1
        current_dels.insert(0, current_delta)

    self.del_old_weights = current_dels

```

```

def acti_func(self,v):
    if self.act_func == 'sigmoid' :
        return 1 / (1 + np.exp(-v))
    if self.act_func == 'tanh' :
        return np.tanh(v)
    if self.act_func == 'linear' :
        return v
    return v

def derivertive_acti_funct(self,v):
    if self.act_func == 'sigmoid' :
        return v * (1 - v)
    if self.act_func == 'tanh' :
        return 1 - (v ** 2)
    if self.act_func == 'linear' :
        return 1
    return v

def sum_sqaure_error(self,pred,real):
    real_m = real.copy()
    sums = 0
    if(real.ndim > 1) :
        tp = None
        fp = None
        for i in range(len(real_m)):
            if( i == 0) :
                tp = real_m[i]
            else :
                fp = real_m[i]
                tp = np.vstack((tp, fp)).T
        real_m = np.argmax(tp, axis=1)
    for i in range(len(pred)):
        sums = sums + np.square(pred[i]-real_m[i])
    return sums/2

def conf_matrix(self,pred,true,is_norm=False,confuse=True,Table=True):
    true_m = np.zeros(len(true))
    if(true.ndim > 1) :
        for i in range(len(true)):
            true_m[i] = np.argmax(true[i], axis=0)
    if(is_norm):
        sqr_error = 0
        if(Table):
            print('Desired Output\t| \tPredict\t| \t\t| \tError')
            print('-----')
        for i in range(len(true)):
            error = round(true[i] - round(pred[i][0],8),2)
            if(Table):
                print(str(int(true[i]))+'\t| \t| \t| \t'+str(format(round(pred[i][0],8), '.8f'))+'\t| \t| \t'+str(error))
        )
        sqr_error = sqr_error + (error * error)
        if(Table):
            print('-----')
            print('Mean Square Error = '+str(round(sqr_error/len(true),6)))
            print('=====')
        return round(sqr_error/len(true),6)
    else :
        if(Table):
            print('Desired Output\t| \t| \tPredict\t| \t\t| \t')

```

```

print('-----')
for i in range(len(true)):
    print(str(int(true_m[i]))+'\t\t\t\t|'+str(pred[i]))
print('-----')
if(confuse):
    print('\n\t\t\t Confusion Matrix')
    TP = 0
    FN = 0
    FP = 0
    TN = 0
    for i in range(len(true)):
        if((pred[i] == 0) and ( true_m[i] == 0)):
            TN = TN + 1
        elif((pred[i] == 1) and ( true_m[i] == 1)):
            TP = TP + 1
        elif((pred[i] == 1) and ( true_m[i] == 0)):
            FP = FP + 1
        else :
            FN = FN + 1

    print('-----')
    for i in range(8):
        print('|\t\t\t|')
        if(i == 1):
            print('|\t\t\t|'+str(TN)+'\t\t\t|'+str(FP)+'\t\t\t|'+str(FP+TN))
        if(i == 3):
            print('-----')
        if(i == 5):
            print('|\t\t\t|'+str(FN)+'\t\t\t|'+str(TP)+'\t\t\t|'+str(FN+TP))
    print('-----')
    print(' \t\t|'+str(TN+FN)+'\t\t\t|'+str(FP+TP)+'\t\t\t|'+str(TN+FP+FN+TP))
    print(" ")
    print('Accuracy : '+str((TN+TP)/(TN+FP+FN+TP)))
    return((TN+TP)/(TN+FP+FN+TP))

```

In [4]:

```

def load_data(name,cross):
    is_norm = False
    if(name == 1):
        dataset,label = load_txt("./Flood_dataset.txt")
        dataset,mx_dataset,mn_dataset = norm(dataset)
        label,mx_label,mn_label = norm(label)
        is_norm = True
        max_min = [mx_dataset,mn_dataset,mx_label,mn_label]
    else :
        dataset,label = load_txt("./cross.pat")
        n_sample = np.arange(len(dataset))
        np.random.shuffle(n_sample)
        if(is_norm) :
            return dataset,label,n_sample,max_min
        else :
            return dataset,label,n_sample

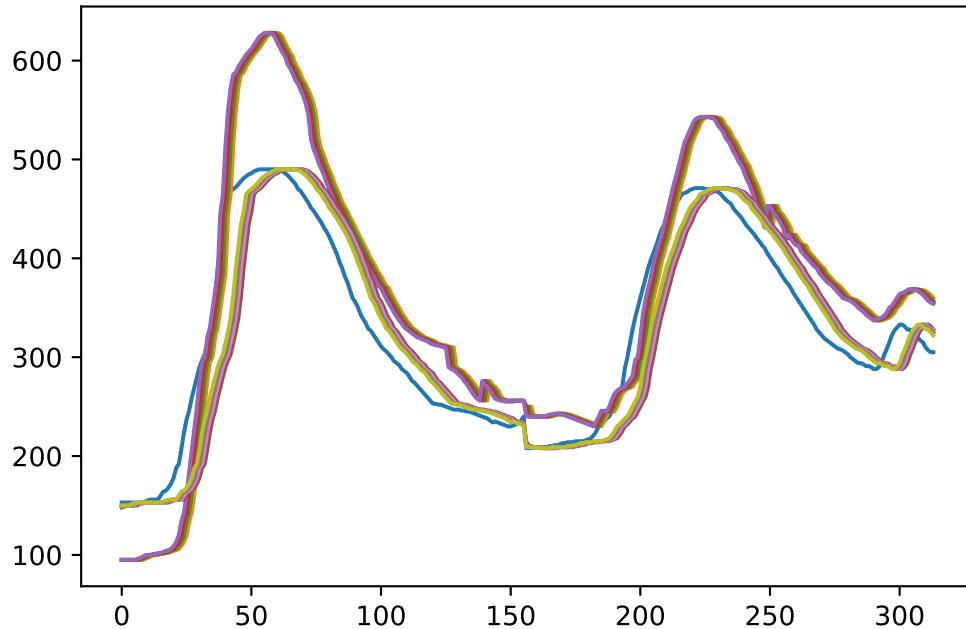
```

In [5]:

```
def MLP(Nueral,learning_rate,momentum_rate,activation,epoch,cross_valda_train_test,data_num) :  
    if(data_num == 0):  
        print('----- Variable -----\\n')  
        dataset,label,n_sample = load_data(data_num,cross_valda_train_test)  
        data_name = 'cross.pat'  
    else :  
        print('----- Variable -----\\n')  
        dataset,label,n_sample,max_min = load_data(data_num,cross_valda_train_test)  
        data_name = 'Flood data set'  
    n_test_per_round = int(len(dataset)*cross_valda_train_test[1]/100)  
    print('Datafile : ' +str(data_name),end='\\n')  
    print('Nueral name : '+str(len(dataset[0]))+'-',end="")  
    for i in range(len(Nueral)):  
        print(str(Nueral[i])+'-',end="")  
    print(label.ndim,end='\\n')  
    print('Learning rate : '+str(learning_rate),end='\\n')  
    print('Momentum rate : '+str(momentum_rate),end='\\n')  
    print('Activaion Function : ' +str(activation),end='\\n')  
    print('Cross validation : ['+str(cross_valda_train_test[0])+':'+str(cross_valda_train_test[1])+']',end='\\n')  
)  
    print('#Epoch : '+str(epoch),end='\\n')  
    error_avg = []  
    acc_avg = []  
    for i in range(10):  
        test_data = n_sample[i*n_test_per_round:i*n_test_per_round+n_test_per_round]  
        train_data = list(set(n_sample) - set(test_data))  
        nn = NN([len(dataset[0]),label.ndim],Nueral,activation)  
        nn.train(dataset[train_data],label[train_data],learning_rate,momentum_rate,epoch,False)  
        pred = nn.predict(dataset[test_data])  
        if(data_num == 1):  
            #      print('\\n----- Round : '+str(i)+ ' -----')  
            pred = convert_norm(pred,max_min[2],max_min[3])  
            test_label = convert_norm(label[test_data],max_min[2],max_min[3])  
            error_avg.append(nn.conf_matrix(pred,test_label,is_norm=True,confuse=False,Table=True))  
        else :  
            #      print('\\n----- Round : '+str(i)+ ' -----')  
            acc_avg.append(nn.conf_matrix(pred,label[test_data],is_norm=False,confuse=True,Table=True))  
    if(data_num == 1):  
        print('\\n***** Mean Square Error Average : ' + str(round(np.sum(error_avg)/len(error_avg),4))+ ' *****')  
        print(np.min(error_avg))  
        return round(np.sum(error_avg)/len(error_avg),4),np.min(error_avg)  
    else :  
        print('\\n***** Accuracy Average : ' + str(round(np.sum(acc_avg)/len(acc_avg),4))+ ' *****')  
)  
    return round(np.sum(acc_avg)/len(acc_avg),4),np.max(acc_avg)
```

In [39]:

```
# Visualization Flood_dataset.txt
dataset, label = load_txt("./Flood_dataset.txt")
plt.plot(label, label="Y")
plt.plot(dataset)
plt.show()
```



In [40]:

```
# Visualization cross.pat
dataset, label = load_txt("./cross.pat")

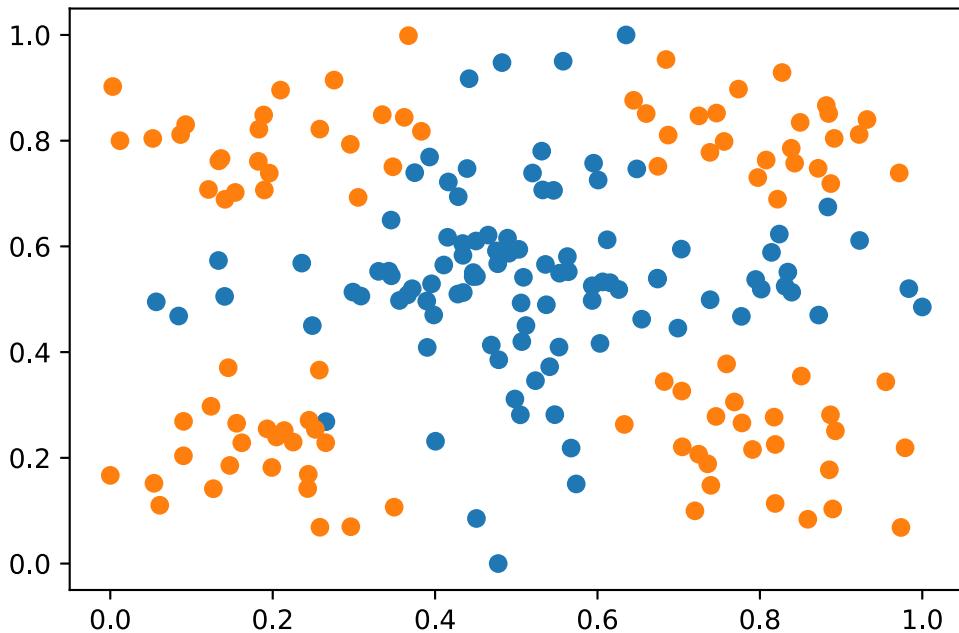
setAx = []
setAy = []
setBx = []
setBy = []

for i in range(len(label)):
    if label[i][0] == 0:
        setAx.append(dataset[i][0])
        setAy.append(dataset[i][1])
    if label[i][0] == 1:
        setBx.append(dataset[i][0])
        setBy.append(dataset[i][1])

plt.scatter(setAx, setAy, label='SetA')
plt.scatter(setBx, setBy, label='SetB')
```

Out[40]:

```
<matplotlib.collections.PathCollection at 0x1fc49be5e50>
```



In [41]:

```
# Find best learning_rate for Flood_dataset.txt
error_arr = np.zeros(100)
minn_arr = np.zeros(100)
for i in range(1,101):
    Nueral = [10,6]
    cross_valda_train_test = [90,10] # train 90 , test 10
    data_num = 1 # 0 = cross.pat , 1 = flood data set
    learning_rate = i*0.01
    momentum_rate = 0.07
    activation = 'sigmoid'
    epoch = 1000
    error,minn = MLP(Nueral,learning_rate,momentum_rate,activation,epoch,cross_valda_train_test,data_num)
    error_arr[i-1] = error
    minn_arr[i-1] = minn

plt.plot(error_arr, label="Error Avg")
plt.plot(minn_arr, label="Min Error")
plt.show()
```

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.01

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
250	235.85843059	14.14
470	452.92731285	17.07
268	283.92428303	-15.92
209	225.97407321	-16.97
490	469.43542637	20.56
309	332.17434414	-23.17
246	197.35777999	48.64
440	435.71421464	4.29
344	370.07459442	-26.07
156	185.14115252	-29.14
431	429.02032006	1.98
478	463.78929327	14.21
230	234.32893917	-4.33
317	341.98875523	-24.99
385	396.63228855	-11.63
331	333.58916964	-2.59
465	449.59825365	15.4
368	388.32923467	-20.33
239	241.89204640	-2.89
270	210.65615352	59.34
420	372.98454118	47.02
317	332.01696791	-15.02
231	234.52969875	-3.53
433	427.42746618	5.57
327	351.51118574	-24.51
290	304.63000172	-14.63
274	286.97279345	-12.97
156	185.35722618	-29.36
209	225.97407321	-16.97
262	281.69307857	-19.69
286	296.13111448	-10.13

Mean Square Error = 521.926955

Desired Output	Predict	Error
242	237.48242068	4.52
231	233.65105905	-2.65
255	238.45489562	16.55
445	404.64754502	40.35
454	418.81669368	35.18
235	226.36472533	8.64
490	469.93076846	20.07
381	392.52716592	-11.53
164	181.60602587	-17.61
471	450.47139878	20.53
213	226.08001260	-13.08
315	310.63003357	4.37
209	224.73392272	-15.73
165	181.73808202	-16.74

314	247.11084005	66.89
361	376.48586920	-15.49
427	423.88898457	3.11
288	300.08631710	-12.09
329	355.84146262	-26.84
303	321.82339180	-18.82
460	457.31662465	2.68
351	374.11923847	-23.12
259	200.11651095	58.88
215	223.70125461	-8.7
294	314.60322846	-20.6
230	222.39905850	7.6
300	322.17279462	-22.17
436	431.22886101	4.77
211	226.40240112	-15.4
303	323.20341283	-20.2
447	437.67655122	9.32

Mean Square Error = 547.879945

Desired Output	Predict	Error
221	217.63933339	3.36
451	449.88819115	1.11
460	433.57201858	26.43
489	472.30305279	16.7
172	176.91562238	-4.92
253	278.14559250	-25.15
459	446.50471363	12.5
417	397.00830506	19.99
326	296.91281303	29.09
224	182.84799420	41.15
390	335.59687946	54.4
468	463.00915182	4.99
213	225.29783314	-12.3
457	444.35485831	12.65
308	309.94857794	-1.95
337	356.29884116	-19.3
240	238.02351330	1.98
288	243.92979837	44.07
208	223.93418607	-15.93
280	288.86544274	-8.87
225	218.56822397	6.43
209	224.24230135	-15.24
490	473.54875482	16.45
481	468.29178794	12.71
377	380.64319431	-3.64
232	231.81309682	0.19
238	244.57053437	-6.57
232	232.36978523	-0.37
245	231.96753304	13.03
396	398.21784320	-2.22
246	251.59245058	-5.59

Mean Square Error = 376.153948

Desired Output	Predict	Error
475	461.56671321	13.43
294	316.59629702	-22.6
207	187.51966640	19.48

235	238.48291668	-3.48
288	302.15456425	-14.15
413	399.46034680	13.54
307	323.92259393	-16.92
441	431.34659733	9.65
328	333.16714094	-5.17
471	449.56547542	21.43
153	183.57124479	-30.57
357	375.51143684	-18.51
300	318.09483177	-18.09
243	240.54816925	2.45
153	183.38451658	-30.38
218	220.98765632	-2.99
462	445.33007041	16.67
215	222.89793485	-7.9
330	320.13716439	9.86
245	245.82937241	-0.83
192	186.08940896	5.91
435	396.23651222	38.76
467	447.68330741	19.32
450	438.00337399	12.0
470	449.53110680	20.47
472	459.78598257	12.21
322	333.39861683	-11.4
153	183.40860130	-30.41
168	184.61074475	-16.61
370	290.18972775	79.81
438	393.08053049	44.92

Mean Square Error = 569.445994

Desired Output	Predict	Error
382	392.92059506	-10.92
251	278.76982803	-27.77
490	465.65557602	24.34
305	327.91110210	-22.91
247	261.45963284	-14.46
393	398.57384811	-5.57
333	333.05642478	-0.06
333	357.40660085	-24.41
490	464.87649075	25.12
475	458.04258052	16.96
315	333.48483020	-18.48
320	339.39610747	-19.4
310	329.54502398	-19.55
188	174.00083617	14.0
470	456.85910396	13.14
296	315.22793553	-19.23
246	251.14609183	-5.15
260	241.97251295	18.03
270	243.69927011	26.3
233	232.47402010	0.53
420	405.73666636	14.26
448	439.74550298	8.25
313	339.22936631	-26.23
294	307.36986645	-13.37
248	264.45773625	-16.46
290	231.17671173	58.82
483	464.46423173	18.54
234	240.11517646	-6.12

360		275.40152368		84.6
486		462.39534298		23.6
214		222.73846804		-8.74

Mean Square Error = 635.001432

Desired Output		Predict		Error
259		280.28178705		-21.28
416		411.70963023		4.29
470		448.60775352		21.39
470		465.26535974		4.73
488		468.69305164		19.31
412		377.32060743		34.68
489		469.21873664		19.78
307		324.98671304		-17.99
488		467.89386690		20.11
398		342.95691806		55.04
160		179.36726432		-19.37
314		280.90203929		33.1
308		327.62369629		-19.62
210		225.59146437		-15.59
247		253.83194941		-6.83
208		227.84630239		-19.85
405		390.53162997		14.47
444		432.37563051		11.62
305		318.33370938		-13.33
433		388.65291902		44.35
428		380.99575184		47.0
215		221.26848082		-6.27
153		178.39253256		-25.39
390		394.77716256		-4.78
410		386.39989712		23.6
478		468.65349841		9.35
485		468.54547295		16.45
300		245.15445322		54.85
380		315.25715729		64.74
290		302.07449287		-12.07
178		180.14920933		-2.15

Mean Square Error = 738.219729

Desired Output		Predict		Error
450		412.12717945		37.87
339		365.17850859		-26.18
210		225.50626653		-15.51
253		279.59065844		-26.59
356		379.34011452		-23.34
468		455.59734471		12.4
490		469.82059567		20.18
208		225.73762083		-17.74
374		384.51265790		-10.51
422		419.86100519		2.14
247		256.55514280		-9.56
325		335.56023388		-10.56
153		177.37893091		-24.38
319		344.80674175		-25.81
412		364.67732327		47.32
340		307.35705057		32.64
293		312.29743748		-19.3

306	325.99974274	-20.0
447	428.54500621	18.45
486	467.67235259	18.33
153	177.34840549	-24.35
252	278.16688715	-26.17
465	436.17419514	28.83
271	286.94251227	-15.94
265	284.14961598	-19.15
240	229.75916161	10.24
323	347.63419654	-24.63
328	252.09292333	75.91
353	371.37487733	-18.37
456	453.67958869	2.32
284	294.86645799	-10.87

Mean Square Error = 660.776745

Desired Output	Predict	Error
315	340.56486572	-25.56
350	263.47468184	86.53
232	223.32121777	8.68
236	232.70092358	3.3
404	410.56721447	-6.57
214	221.61556724	-7.62
230	232.99477442	-2.99
217	219.09878203	-2.1
340	258.23186784	81.77
240	232.57958612	7.42
311	334.92721770	-23.93
362	318.41505941	43.58
490	467.62473140	22.38
215	220.76840166	-5.77
256	279.06419749	-23.06
292	305.34262883	-13.34
437	430.13122328	6.87
370	385.20072316	-15.2
444	438.81374150	5.19
216	219.57252673	-3.57
325	353.11491217	-28.11
365	381.35665270	-16.36
390	403.57705257	-13.58
455	441.25575448	13.74
410	414.05104574	-4.05
465	438.40269136	26.6
464	456.70459181	7.3
315	340.78353023	-25.78
397	403.81010422	-6.81
237	188.99444425	48.01
427	420.60341208	6.4

Mean Square Error = 786.509487

Desired Output	Predict	Error
241	237.68817200	3.31
333	333.12618542	-0.13
467	441.72968273	25.27
245	251.21494444	-6.21
212	230.08540156	-18.09
153	179.22048042	-26.22

305	319.88170003	-14.88
470	451.82647242	18.17
471	450.74062645	20.26
471	451.70102467	19.3
252	280.16354906	-28.16
276	290.59215530	-14.59
209	228.36348982	-19.36
303	262.67856369	40.32
209	228.62191912	-19.62
153	179.38430554	-26.38
291	310.12100818	-19.12
234	236.33145079	-2.33
153	179.22777239	-26.23
390	333.26334627	56.74
376	389.92284036	-13.92
328	337.27541166	-9.28
234	238.75463788	-4.75
302	306.84050604	-4.84
466	437.66490409	28.34
341	362.50856367	-21.51
250	279.71177986	-29.71
335	359.97998994	-24.98
468	451.17684525	16.82
244	245.74354805	-1.74
311	336.11124064	-25.11

Mean Square Error = 497.350674

Desired Output	Predict	Error
327	321.74586388	5.25
297	259.35956474	37.64
280	222.42653094	57.57
156	176.81545023	-20.82
156	176.78064319	-20.78
291	310.55080551	-19.55
155	176.61949566	-21.62
481	469.60451965	11.4
238	227.13431212	10.87
430	420.55998575	9.44
469	452.02479816	16.98
328	354.24661457	-26.25
319	342.40581174	-23.41
308	330.00436725	-22.0
424	411.05550301	12.94
401	400.17290779	0.83
490	471.58272556	18.42
154	176.51205159	-22.51
322	317.48673518	4.51
236	242.58086258	-6.58
484	466.67108795	17.33
457	427.19719697	29.8
322	347.70632639	-25.71
298	322.04520741	-24.05
294	307.30525769	-13.31
360	379.93318052	-19.93
469	447.92025063	21.08
349	367.58626298	-18.59
288	304.07799140	-16.08
214	224.30324883	-10.3
296	320.29773551	-24.3

Mean Square Error = 472.425455

***** Mean Square Error Average : 580.569 *****

376.153948

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.02

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
216	217.86859588	-1.87
438	408.44131216	29.56
313	333.80767987	-20.81
320	334.77567048	-14.78
436	427.72768389	8.27
437	427.40049927	9.6
353	362.79855905	-9.8
323	336.06628468	-13.07
485	478.05412296	6.95
271	279.80068272	-8.8
302	310.38116652	-8.38
362	355.12371908	6.88
246	249.68537037	-3.69
156	173.71428901	-17.71
488	477.99883303	10.0
490	479.01399580	10.99
370	372.21113004	-2.21
333	347.56783659	-14.57
385	386.79220894	-1.79
340	263.20864649	76.79
315	325.89673171	-10.9
405	369.53347581	35.47
467	456.78045510	10.22
230	228.94132913	1.06
214	222.69182233	-8.69
333	344.51730948	-11.52
431	423.91536128	7.08
292	294.78945948	-2.79
209	223.75239432	-14.75
490	477.99239644	12.01
397	392.86499300	4.14

Mean Square Error = 354.587539

Desired Output	Predict	Error
330	342.25693412	-12.26
470	469.47150750	0.53
349	358.17122860	-9.17
444	434.07381294	9.93
245	240.04779551	4.95
215	220.05917767	-5.06
188	171.59710075	16.4
236	239.21629910	-3.22

214	223.27405218	-9.27
412	382.50488584	29.5
230	218.57871301	11.42
298	323.82375524	-25.82
307	318.63945426	-11.64
290	307.42682820	-17.43
240	233.98633951	6.01
450	423.67831490	26.32
153	169.45678439	-16.46
215	221.09643152	-6.1
280	228.94481999	51.06
262	279.65479077	-17.65
210	225.53469425	-15.53
450	441.25227895	8.75
252	280.46764375	-28.47
435	446.00984991	-11.01
256	278.61717111	-22.62
490	479.12555125	10.87
209	224.19492839	-15.19
448	443.42730550	4.57
368	369.32184319	-1.32
360	363.84401644	-3.84
351	355.23736758	-4.24

Mean Square Error = 289.559532

Desired Output	Predict	Error
290	267.14543280	22.85
489	477.01234284	11.99
213	231.48606551	-18.49
390	370.56965191	19.43
288	317.93192983	-29.93
153	171.44204660	-18.44
424	419.63941422	4.36
410	416.73697800	-6.74
471	464.91293483	6.09
240	238.40654807	1.59
305	331.26951557	-26.27
215	224.25925340	-9.26
481	473.92398097	7.08
433	434.01417906	-1.01
225	222.18480402	2.82
465	471.73028399	-6.73
224	180.98224504	43.02
381	400.14101204	-19.14
308	329.99680216	-22.0
239	253.32570379	-14.33
209	229.63917497	-20.64
469	463.44725218	5.55
209	229.59739275	-20.6
153	171.16600050	-18.17
455	452.37885380	2.62
447	462.81930810	-15.82
240	235.45357161	4.55
427	425.56565863	1.43
328	362.78264369	-34.78
168	172.70500516	-4.71
451	457.25718785	-6.26

Mean Square Error = 299.163419

Desired Output	Predict	Error
445	419.51312286	25.49
300	322.59537030	-22.6
245	233.79449321	11.21
210	225.71663258	-15.72
428	395.33929618	32.66
250	279.47738991	-29.48
164	176.97156501	-12.97
465	455.86813253	9.13
221	215.61839476	5.38
309	328.87945826	-19.88
252	277.91954362	-25.92
417	387.23805915	29.76
471	462.31152419	8.69
328	251.19601204	76.8
255	242.06885976	12.93
286	286.27304270	-0.27
460	464.31574906	-4.32
156	176.69639863	-20.7
208	224.66502877	-16.67
288	303.04938842	-15.05
488	476.33016916	11.67
468	468.28912161	-0.29
420	389.01000013	30.99
247	253.46571791	-6.47
489	478.41671439	10.58
294	296.61462252	-2.61
310	319.91458373	-9.91
469	458.88793110	10.11
234	230.05406067	3.95
484	474.41800762	9.58
305	323.39100465	-18.39

Mean Square Error = 474.131632

Desired Output	Predict	Error
253	296.85630533	-43.86
470	460.98592123	9.01
440	440.38946948	-0.39
329	363.45422401	-34.45
462	455.74447708	6.26
236	238.93810124	-2.94
303	334.71622107	-31.72
322	363.62483248	-41.62
333	370.84989451	-37.85
242	238.23118520	3.77
478	476.52165931	1.48
430	428.72194510	1.28
293	334.91617370	-41.92
265	298.43390041	-33.43
234	245.33491963	-11.33
326	339.51017061	-13.51
413	399.30613164	13.69
259	298.37824946	-39.38
471	461.26627481	9.73
325	365.78510539	-40.79
441	439.64093616	1.36
470	461.66192025	8.34

306	339.91455868	-33.91
396	408.03756002	-12.04
156	166.08557104	-10.09
365	388.98672711	-23.99
490	476.04285589	13.96
178	167.23788660	10.76
376	395.69774929	-19.7
208	234.42433789	-26.42
382	399.98403469	-17.98

Mean Square Error = 576.605787

Desired Output	Predict	Error
207	182.15682799	24.84
315	352.47736359	-37.48
335	366.14522590	-31.15
153	176.65254364	-23.65
284	301.44219627	-17.44
156	177.22202539	-21.22
410	396.67286212	13.33
486	480.08290493	5.92
337	371.68142647	-34.68
274	295.79642814	-21.8
211	232.73393224	-21.73
155	177.19628041	-22.2
468	465.94787605	2.05
311	348.88646333	-37.89
490	480.94714549	9.05
246	195.11665244	50.88
459	459.89110925	-0.89
315	347.17274408	-32.17
457	448.50174295	8.5
490	480.87328528	9.13
357	385.76333458	-28.76
288	254.14248334	33.86
230	236.25486742	-6.25
475	474.88960615	0.11
250	246.80504346	3.19
317	354.62438344	-37.62
361	386.99201355	-25.99
390	408.10706743	-18.11
319	357.30291589	-38.3
412	420.47076120	-8.47
260	253.77244601	6.23

Mean Square Error = 596.208429

Desired Output	Predict	Error
308	317.90542588	-9.91
331	353.20709742	-22.21
280	281.54384577	-1.54
481	481.27436761	-0.27
328	345.22584114	-17.23
307	322.01909122	-15.02
457	450.27065135	6.73
390	390.80954843	-0.81
291	307.23164691	-16.23
213	225.09841640	-12.1
478	473.51278745	4.49

472	482.36362441	-10.36
237	187.23670047	49.76
390	385.07831417	4.92
291	303.53712443	-12.54
276	279.69411312	-3.69
214	224.65066201	-10.65
234	228.35616961	5.64
294	315.48611448	-21.49
420	396.92446507	23.08
247	251.78381588	-4.78
322	343.37606267	-21.38
294	306.31601025	-12.32
305	312.95289424	-7.95
340	343.59695572	-3.6
393	395.00902035	-2.01
231	227.88567023	3.11
416	407.29120565	8.71
232	229.92121516	2.08
209	223.92280360	-14.92
217	217.41680666	-0.42

Mean Square Error = 210.810487

Desired Output	Predict	Error
405	378.64149808	26.36
319	315.79722134	3.2
468	471.57107155	-3.57
444	425.20994685	18.79
466	444.95390599	21.05
259	198.88485644	60.12
314	239.43576876	74.56
235	218.52594073	16.47
471	453.40226781	17.6
465	440.64386819	24.36
296	288.51013834	7.49
460	434.59747596	25.4
208	215.29633567	-7.3
341	339.46462757	1.54
297	268.38851946	28.61
211	217.67233099	-6.67
344	339.67932821	4.32
490	472.56854845	17.43
308	309.21325217	-1.21
165	171.18838731	-6.19
315	303.81283460	11.19
244	227.04408402	16.96
246	235.85187778	10.15
327	322.93182041	4.07
464	457.88685538	6.11
454	422.59128901	31.41
247	241.42918385	5.57
404	384.44579856	19.55
232	220.98391598	11.02
322	308.65666899	13.34
248	243.53262419	4.47

Mean Square Error = 520.425787

Desired Output	Predict	Error
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209	232.12804118	-23.13
433	428.02587172	4.97
238	236.17506753	1.82
296	352.48873863	-56.49
290	335.39322907	-45.39
470	470.47134424	-0.47
483	481.35245849	1.65
350	292.71570479	57.28
456	470.68734585	-14.69
153	168.42790413	-15.43
192	172.29626180	19.7
339	388.52425233	-49.52
475	481.64104470	-6.64
153	168.42203155	-15.42
374	410.02661668	-36.03
249	287.36067406	-38.36
380	365.61108387	14.39
215	227.39955035	-12.4
327	360.80434448	-33.8
300	263.38033564	36.62
317	365.54371258	-48.54
153	168.39073593	-15.39
294	347.01418154	-53.01
377	410.28510754	-33.29
238	258.03655660	-20.04
401	428.25738620	-27.26
153	168.40031548	-15.4
303	356.42287999	-53.42
300	342.67549727	-42.68
360	313.97843070	46.02
268	307.84831908	-39.85

Mean Square Error = 1114.923142

Desired Output	Predict	Error
328	350.19582212	-22.2
288	293.42716192	-5.43
467	453.26308335	13.74
470	458.09612300	11.9
235	233.13508058	1.86
490	478.30333201	11.7
314	295.00152418	19.0
470	478.16912498	-8.17
345	358.77291509	-13.77
153	173.12462160	-20.12
233	228.70779490	4.29
245	244.58496802	0.42
427	419.03958206	7.96
251	277.78524747	-26.79
311	326.95244825	-15.95
231	228.55985459	2.44
270	204.98327975	65.02
303	280.70440764	22.3
212	224.92580978	-12.93
356	363.02530040	-7.03
154	173.46384981	-19.46
325	346.37875891	-21.38
370	300.56084896	69.44
160	174.02153274	-14.02
243	234.67426905	8.33

486		475.68013662		10.32
422		413.72633169		8.27
232		220.55728480		11.44
241		228.96780872		12.03
270		243.69157142		26.31
447		439.53003386		7.47

Mean Square Error = 488.352016

***** Mean Square Error Average : 492.4768 *****
210.810487

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.03

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
234		220.45406346		13.55
252		262.18920947		-10.19
471		455.51569490		15.48
211		218.51027832		-7.51
365		353.07907777		11.92
470		475.76583572		-5.77
247		239.59734992		7.4
236		228.12590473		7.87
294		297.35585471		-3.36
396		377.98522517		18.01
380		327.68702506		52.31
224		182.01792158		41.98
246		192.64425878		53.36
305		295.42895245		9.57
370		354.52863912		15.47
153		174.04050760		-21.04
315		308.16879852		6.83
192		177.44806722		14.55
292		276.23134573		15.77
303		292.56151639		10.44
314		293.42791107		20.57
450		415.85105309		34.15
450		432.91621124		17.08
260		235.13718231		24.86
290		287.26320454		2.74
464		460.16146268		3.84
153		174.30071859		-21.3
288		273.91851612		14.08
153		174.01028515		-21.01
293		292.87616999		0.12
209		216.29579574		-7.3

Mean Square Error = 439.186255

Desired Output		Predict		Error
465		444.42574544		20.57
209		215.39972395		-6.4

451	440.35211944	10.65
230	212.66920336	17.33
470	450.14594851	19.85
478	464.47677156	13.52
481	465.94374341	15.06
235	222.29294833	12.71
454	419.88363249	34.12
214	214.74169876	-0.74
210	216.48458928	-6.48
489	470.81878658	18.18
164	172.78263875	-8.78
156	172.43436939	-16.43
235	217.30917778	17.69
465	463.58247589	1.42
433	408.66228976	24.34
344	335.07633085	8.92
280	268.72826864	11.27
468	470.66448956	-2.66
489	472.39102913	16.61
302	290.59558601	11.4
240	221.13252281	18.87
306	297.23301400	8.77
209	214.87652509	-5.88
397	381.26621375	15.73
385	370.43402906	14.57
320	320.42125896	-0.42
370	303.92495025	66.08
368	355.80758649	12.19
455	434.02149217	20.98

Mean Square Error = 359.255852

Desired Output	Predict	Error
444	449.50287243	-5.5
274	292.50206498	-18.5
291	321.10889239	-30.11
335	361.58997497	-26.59
433	419.66981337	13.33
296	316.37797127	-20.38
475	475.10731643	-0.11
178	177.44727554	0.55
326	330.05858817	-4.06
322	356.13791001	-34.14
462	462.10209422	-0.1
390	372.35863736	17.64
468	466.36046515	1.64
490	480.97908581	9.02
333	361.57284366	-28.57
481	480.95720207	0.04
305	336.04536147	-31.05
271	291.20899662	-20.21
313	346.54259043	-33.54
238	233.86318587	4.14
268	290.11322656	-22.11
155	176.07132481	-21.07
360	385.30466166	-25.3
303	305.80103910	-2.8
456	467.36022466	-11.36
329	356.42580843	-27.43
240	235.90446215	4.1

290	315.48021329	-25.48
483	480.92590538	2.07
208	232.61655971	-24.62
230	236.06107564	-6.06

Mean Square Error = 363.321935

Desired Output	Predict	Error
436	413.66251517	22.34
234	221.01909577	12.98
390	359.44306200	30.56
435	427.25159805	7.75
410	353.54172357	56.46
339	326.59436211	12.41
488	471.21321996	16.79
486	471.52063744	14.48
250	228.96657613	21.03
328	333.09392295	-5.09
467	445.10148724	21.9
238	231.28867597	6.71
447	425.94811249	21.05
310	302.33311539	7.67
356	340.30540967	15.69
297	266.37139744	30.63
447	450.72907568	-3.73
217	210.26538093	6.73
308	295.31399200	12.69
327	315.80360393	11.2
319	317.97514219	1.02
215	212.79420451	2.21
471	452.17658261	18.82
413	362.34372553	50.66
490	472.24752550	17.75
305	296.31948563	8.68
353	342.13503211	10.86
315	307.86545991	7.13
236	220.86887596	15.13
405	358.02480927	46.98
188	175.09211733	12.91

Mean Square Error = 471.228226

Desired Output	Predict	Error
351	337.03378461	13.97
314	238.41987962	75.58
470	453.32388204	16.68
381	365.74645343	15.25
247	240.05344639	6.95
160	177.65268332	-17.65
398	349.02563112	48.97
484	468.63502104	15.36
376	360.44861687	15.55
209	216.34695245	-7.35
341	333.64317310	7.36
153	176.92502300	-23.93
262	260.35272936	1.65
208	216.31916605	-8.32
307	301.55445398	5.45
286	268.94382297	17.06

250	259.21342468	-9.21
225	211.93269027	13.07
377	354.58939766	22.41
165	177.98876429	-12.99
401	381.54875822	19.45
404	381.97685867	22.02
333	327.18952392	5.81
153	176.78481519	-23.78
357	346.66180128	10.34
317	313.21956391	3.78
422	399.02207692	22.98
333	322.02962288	10.97
291	284.26845425	6.73
416	393.52097531	22.48
360	274.42503274	85.57

Mean Square Error = 701.901494

Desired Output	Predict	Error
215	226.83845203	-11.84
315	341.14180178	-26.14
253	295.41890453	-42.42
471	461.95652979	9.04
216	225.77187178	-9.77
362	374.25971309	-12.26
290	267.13994688	22.86
213	233.51164694	-20.51
457	454.12253105	2.88
490	475.11091241	14.89
284	307.72935320	-23.73
444	445.32852909	-1.33
485	474.45660436	10.54
232	238.69119784	-6.69
417	412.56908012	4.43
154	173.66011696	-19.66
468	467.39470954	0.61
490	475.23971995	14.76
239	253.43882435	-14.44
280	239.19054910	40.81
156	174.00817555	-18.01
253	295.40340267	-42.4
233	238.94517568	-5.95
328	372.07103164	-44.07
323	360.07367891	-37.07
215	228.94663463	-13.95
319	357.13357241	-38.13
303	346.09005796	-43.09
457	445.52155080	11.48
420	408.04456119	11.96
412	423.95239802	-11.95

Mean Square Error = 539.983668

Desired Output	Predict	Error
308	334.44913941	-26.45
325	363.10468004	-38.1
311	345.33973228	-34.34
490	481.34067666	8.66
156	178.67703021	-22.68

337	367.39288473	-30.39
265	289.62575989	-24.63
255	252.98309442	2.02
256	288.00426765	-32.0
340	352.59390423	-12.59
470	467.59171767	2.41
427	432.28161872	-5.28
214	232.20891202	-18.21
322	358.78988581	-36.79
327	345.15840894	-18.16
424	420.93716578	3.06
467	465.26197506	1.74
300	337.14496136	-37.14
215	229.30076483	-14.3
405	401.98006149	3.02
349	375.55804689	-26.56
153	177.86207967	-24.86
298	335.83144760	-37.83
438	426.49067364	11.51
374	389.49279809	-15.49
469	467.37031665	1.63
270	255.49418756	14.51
252	288.81360723	-36.81
153	177.72971611	-24.73
249	276.86646046	-27.87
470	468.37149864	1.63

Mean Square Error = 528.280232

Desired Output	Predict	Error
440	419.92621104	20.07
307	299.41307780	7.59
486	470.03738675	15.96
246	233.89728349	12.1
437	414.34707818	22.65
471	454.14758386	16.85
469	449.71003670	19.29
232	220.40376088	11.6
330	320.88687110	9.11
288	284.80607022	3.19
478	475.08148917	2.92
209	215.10501549	-6.11
350	258.20718878	91.79
251	263.28281739	-12.28
294	296.40514828	-2.41
382	364.95992838	17.04
259	199.11596605	59.88
448	431.72816266	16.27
445	406.02816764	38.97
212	216.84575383	-4.85
231	218.56666727	12.43
243	221.87988276	21.12
232	216.75228418	15.25
244	224.90651055	19.09
241	217.84809878	23.15
153	172.13878156	-19.14
172	173.45005739	-1.45
428	380.32286424	47.68
490	472.98087449	17.02
390	370.04633453	19.95

246

| 236.92726135

| 9.07

Mean Square Error = 700.461548

Desired Output	Predict	Error
459	445.53424466	13.47
156	172.75484001	-16.75
322	309.47255406	12.53
207	177.52216978	29.48
294	291.99873236	2.0
472	479.40441828	-7.4
231	221.95496399	9.05
296	303.81945824	-7.82
294	282.32056297	11.68
208	218.92841892	-10.93
410	388.08485041	21.92
470	467.15665606	2.84
460	437.12255810	22.88
240	227.70317814	12.3
390	376.01588703	13.98
325	327.11450275	-2.11
460	460.93916430	-0.94
393	379.82986831	13.17
247	245.54681567	1.45
345	339.91343567	5.09
242	222.63354442	19.37
430	407.22135140	22.78
328	242.83276453	85.17
210	218.92180733	-8.92
488	474.64861051	13.35
245	225.78487588	19.22
211	219.86934959	-8.87
288	287.67886523	0.32
245	234.13261351	10.87
340	252.12062773	87.88
427	399.93540031	27.06

Mean Square Error = 675.441116

Desired Output	Predict	Error
490	470.64580064	19.35
259	262.93569324	-3.94
490	471.29190675	18.71
331	334.41305008	-3.41
237	178.73230820	58.27
245	227.44356068	17.56
309	309.85156220	-0.85
234	223.50831541	10.49
441	417.42865253	23.57
168	168.60310874	-0.6
270	208.37548149	61.62
230	217.46719410	12.53
213	214.45480421	-1.45
248	242.44902425	5.55
300	235.82966999	64.17
311	305.57233459	5.43
465	437.22363462	27.78
214	211.99868633	2.0
420	381.33637809	38.66

221	205.50051363	15.5
288	234.18673854	53.81
300	290.06611399	9.93
153	167.43079083	-14.43
466	441.46479713	24.54
209	212.87203280	-3.87
308	307.77453196	0.23
315	315.31803308	-0.32
361	349.00317838	12.0
317	316.45653548	0.54
475	473.67874229	1.32
218	206.20244432	11.8

Mean Square Error = 641.025616

***** Mean Square Error Average : 542.0086 *****
359.255852

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.04

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
209	218.87593089	-9.88
428	389.64144469	38.36
250	233.90716264	16.09
296	302.40960111	-6.41
156	176.02028671	-20.02
471	459.07962878	11.92
288	237.90295908	50.1
472	481.03710797	-9.04
470	458.53706268	11.46
317	316.70752714	0.29
368	356.68860641	11.31
300	290.59442113	9.41
470	458.00423970	12.0
448	434.07135930	13.93
460	460.93866197	-0.94
381	368.90832439	12.09
311	305.98129200	5.02
305	297.14242242	7.86
401	389.52405744	11.48
252	263.73489161	-11.73
239	236.45692120	2.54
214	218.83294422	-4.83
303	291.53573056	11.46
308	297.96747671	10.03
420	384.07024549	35.93
416	395.35220537	20.65
488	477.73473997	10.27
156	176.22140091	-20.22
240	222.66337750	17.34
420	384.27724495	35.72
360	350.35344353	9.65

Mean Square Error = 334.070213

Desired Output	Predict	Error
305	296.86973481	8.13
455	438.84497665	16.16
374	357.67040325	16.33
325	329.09428216	-4.09
270	215.94856860	54.05
469	455.14833285	13.85
470	465.15200070	4.85
153	176.64058615	-23.64
307	299.55173162	7.45
286	271.17287563	14.83
345	339.01818917	5.98
489	475.23626229	13.76
208	216.67142154	-8.67
329	320.88023890	8.12
377	355.61865494	21.38
307	304.15097970	2.85
296	284.45695262	11.54
215	214.89922889	0.1
397	384.70670935	12.29
490	476.13594229	13.86
153	176.83567646	-23.84
298	301.86895803	-3.87
390	376.73759695	13.26
444	426.82379027	17.18
153	176.85758384	-23.86
470	476.64031097	-6.64
337	333.21413986	3.79
468	474.63839907	-6.64
353	344.92061322	8.08
214	216.25478405	-2.25
313	313.11323667	-0.11

Mean Square Error = 247.933158

Desired Output	Predict	Error
243	239.11789279	3.88
253	282.79576352	-29.8
441	445.63632502	-4.64
218	222.70417484	-4.7
465	464.53240588	0.47
444	448.07616576	-4.08
413	398.45195362	14.55
265	286.07036401	-21.07
344	366.30760427	-22.31
232	232.10520482	-0.11
164	177.55342776	-13.55
209	229.96056450	-20.96
213	230.93282474	-17.93
447	451.39089781	-4.39
457	459.08037979	-2.08
467	466.15662317	0.84
356	376.11277569	-20.11
232	236.94518045	-4.95
234	235.50459241	-1.5
322	354.11706476	-32.12
156	177.09905593	-21.1

314	321.83884959	-7.84
315	328.70061166	-13.7
315	337.37195691	-22.37
484	478.70776706	5.29
217	223.44935869	-6.45
433	437.03438646	-4.03
430	432.60217501	-2.6
249	269.89423535	-20.89
290	270.64862867	19.35
349	372.65446604	-23.65

Mean Square Error = 232.453423

Desired Output	Predict	Error
351	376.02276503	-25.02
160	178.89816545	-18.9
490	481.12420393	8.88
435	453.56141146	-18.56
293	325.13344104	-32.13
339	365.81865383	-26.82
340	354.00529795	-14.01
153	178.27159318	-25.27
333	359.75363804	-26.75
478	481.35359339	-3.35
288	302.91054151	-14.91
305	337.62491899	-32.62
294	320.34128921	-26.34
315	349.95108125	-34.95
245	240.57851832	4.42
317	351.65532253	-34.66
234	240.95934709	-6.96
280	295.16213094	-15.16
470	467.85426763	2.15
456	467.58196342	-11.58
242	235.90720870	6.09
225	222.89190264	2.11
241	233.88607381	7.11
410	393.18020156	16.82
231	234.12447078	-3.12
153	177.97588137	-24.98
447	470.00615337	-23.01
450	454.10120665	-4.1
350	281.41033242	68.59
315	341.93082148	-26.93
153	177.94378294	-24.94

Mean Square Error = 553.747116

Desired Output	Predict	Error
398	381.05507573	16.94
230	236.05276265	-6.05
468	466.67428186	1.33
438	427.27903195	10.72
322	335.33165685	-13.33
424	420.92348879	3.08
247	260.56289638	-13.56
469	465.99886440	3.0
212	233.04388672	-21.04
208	231.99648406	-24.0

232	235.90496866	-3.9
235	238.97048938	-3.97
335	357.75556501	-22.76
440	445.67357891	-5.67
155	177.99538203	-23.0
405	405.00488323	-0.0
236	237.67945462	-1.68
209	231.00608846	-22.01
471	468.62793097	2.37
362	371.99836800	-10.0
188	179.96274071	8.04
213	232.84297348	-19.84
422	427.76031775	-5.76
210	232.95399393	-22.95
294	327.50266183	-33.5
490	480.36170577	9.64
483	481.24758235	1.75
294	307.95912621	-13.96
365	384.02767065	-19.03
252	286.07142950	-34.07
325	356.62149836	-31.62

Mean Square Error = 274.064577

Desired Output	Predict	Error
240	236.03489817	3.97
486	479.28674297	6.71
209	228.97707384	-19.98
276	291.17203655	-15.17
207	184.34620745	22.65
255	250.57214792	4.43
209	228.84498628	-19.84
471	469.79413057	1.21
308	339.37988942	-31.38
431	439.44769104	-8.45
280	237.08253589	42.92
248	264.68622074	-16.69
230	233.86225443	-3.86
262	287.12027151	-25.12
412	427.93977725	-15.94
154	179.14627107	-25.15
410	419.62209286	-9.62
240	241.17751245	-1.18
234	235.99529247	-2.0
486	481.00839216	4.99
288	312.89059970	-24.89
259	206.57862953	52.42
314	256.63655902	57.36
437	442.79794150	-5.8
290	314.29940473	-24.3
215	224.28976805	-9.29
271	288.81634476	-17.82
208	231.90996620	-23.91
450	440.04314954	9.96
470	467.92500611	2.07
490	481.57075382	8.43

Mean Square Error = 480.056835

Desired Output	Predict	Error
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246	195.69004752	50.31
360	276.69932520	83.3
178	177.11624593	0.88
380	323.05626949	56.94
427	403.98166123	23.02
327	314.29471318	12.71
390	339.36232148	50.64
322	324.96038770	-2.96
385	375.25824672	9.74
250	266.51179856	-16.51
485	477.98510890	7.01
230	219.42351811	10.58
489	476.82657493	12.17
370	302.04129367	67.96
259	266.62474527	-7.62
290	289.89628024	0.1
319	321.95964516	-2.96
172	176.69020837	-4.69
310	305.31070402	4.69
245	237.69836974	7.3
328	331.75986403	-3.76
291	293.17440228	-2.17
445	413.56605162	31.43
238	224.30607701	13.69
320	319.94613134	0.05
168	176.56281006	-8.56
327	320.91237781	6.09
247	247.08265907	-0.08
156	175.82120294	-19.82
462	452.49208183	9.51
460	442.49655834	17.5

Mean Square Error = 759.060429

Desired Output	Predict	Error
328	368.06265759	-40.06
490	477.51736252	12.48
300	341.55148877	-41.55
427	438.80392500	-11.8
481	474.37472884	6.63
224	184.59125237	39.41
247	266.73644448	-19.74
211	236.67152546	-25.67
433	421.02559712	11.97
330	355.04919404	-25.05
215	229.90148422	-14.9
231	240.21180898	-9.21
211	236.90606011	-25.91
297	288.47813375	8.52
288	319.12162193	-31.12
268	293.98750050	-25.99
233	239.01884696	-6.02
246	258.74058037	-12.74
256	291.84097380	-35.84
340	274.83283638	65.17
457	450.42740999	6.57
361	390.70239644	-29.7
153	174.36051433	-21.36
357	389.61714588	-32.62

464	470.45722207	-6.46
490	477.28002633	12.72
328	264.27940579	63.72
459	461.08629568	-2.09
326	330.23231387	-4.23
405	391.36822052	13.63
308	341.71310067	-33.71

Mean Square Error = 758.751945

Desired Output	Predict	Error
210	212.87139355	-2.87
467	442.12920796	24.87
412	367.22630114	44.77
471	448.30296182	22.7
253	258.24017008	-5.24
466	439.11681034	26.88
468	455.39668938	12.6
237	180.61647040	56.38
481	470.40387254	10.6
309	307.59910137	1.4
260	231.27315598	28.73
331	329.97349595	1.03
393	375.74276180	17.26
478	460.47041755	17.53
475	471.57130849	3.43
382	363.77729936	18.22
319	310.76530051	8.23
328	326.80087244	1.2
284	267.58502008	16.41
311	309.48091946	1.52
323	313.54797523	9.45
465	459.93684239	5.06
246	234.42280565	11.58
436	411.03944607	24.96
292	274.72972837	17.27
451	436.27105628	14.73
333	328.35401580	4.65
370	351.47985441	18.52
192	173.62172572	18.38
209	211.49873090	-2.5
274	262.79278632	11.21

Mean Square Error = 376.965852

Desired Output	Predict	Error
215	228.52140834	-13.52
291	319.81077362	-28.81
245	247.85750536	-2.86
404	416.59141647	-12.59
341	374.04435574	-33.04
238	249.90006355	-11.9
270	254.01131329	15.99
488	479.47467135	8.53
251	288.34383788	-37.34
153	181.33082638	-28.33
396	412.64172798	-16.64
333	366.15946143	-33.16
165	182.45542508	-17.46

454	448.06795795	5.93
417	410.41957003	6.58
221	222.56413286	-1.56
244	244.21819748	-0.22
302	324.50997890	-22.51
294	329.50788818	-35.51
300	256.01778787	43.98
390	407.92236110	-17.92
490	481.30575030	8.69
235	233.69966206	1.3
376	398.36040948	-22.36
303	338.87767920	-35.88
465	460.97656567	4.02
303	327.30564259	-24.31
306	332.29149378	-26.29
214	230.32037218	-16.32
490	480.99497258	9.01
153	181.28254238	-28.28

Mean Square Error = 484.950968

***** Mean Square Error Average : 450.2055 *****
232.453423

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.05

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
376	401.06360411	-25.06
412	404.66093445	7.34
481	481.59755411	-0.6
260	251.50811948	8.49
464	473.71220398	-9.71
470	481.95277532	-11.95
333	367.02765195	-34.03
310	338.44320265	-28.44
280	237.45538188	42.54
235	232.81312276	2.19
328	365.95684694	-37.96
405	408.86379334	-3.86
208	228.77435811	-20.77
300	253.20587664	46.79
433	424.64594278	8.35
322	341.93088857	-19.93
303	327.49949369	-24.5
457	454.57103212	2.43
155	186.47501855	-31.48
356	385.00951046	-29.01
381	406.58765455	-25.59
444	452.02942841	-8.03
294	329.47919201	-35.48
351	380.33257789	-29.33
412	436.94395678	-24.94
270	251.57542926	18.42

349	382.09184891	-33.09
353	385.77350625	-32.77
393	417.70952908	-24.71
328	368.50533429	-40.51
210	231.56917185	-21.57

Mean Square Error = 659.367016

Desired Output	Predict	Error
490	478.98516300	11.01
481	473.04451230	7.96
327	317.94459863	9.06
215	217.20896882	-2.21
306	299.25201136	6.75
308	298.31198958	9.69
213	221.25887646	-8.26
361	350.68524630	10.31
211	222.64492638	-11.64
234	224.45019022	9.55
467	455.65317722	11.35
447	462.65360922	-15.65
322	323.61869168	-1.62
328	337.62353631	-9.62
468	467.20491898	0.8
293	296.28275456	-3.28
436	421.13774933	14.86
319	313.11446995	5.89
246	241.77333115	4.23
337	334.67266544	2.33
232	221.43643065	10.56
368	356.61607155	11.38
311	306.10148354	4.9
235	226.15216915	8.85
330	321.01902514	8.98
397	389.72073682	7.28
305	297.85567499	7.14
215	217.94993824	-2.95
428	391.11328308	36.89
470	459.64261635	10.36
485	478.97371909	6.03

Mean Square Error = 116.535597

Desired Output	Predict	Error
294	313.21879062	-19.22
255	250.70902715	4.29
370	329.13891919	40.86
224	183.92510402	40.07
305	339.89165365	-34.89
245	247.63161230	-2.63
209	230.55961764	-21.56
470	467.28407239	2.72
385	407.77160062	-22.77
457	459.14077281	-2.14
390	408.43063262	-18.43
380	351.62777547	28.37
302	324.22120512	-22.22
247	263.22229168	-16.22
365	389.43553399	-24.44

160	176.38994972	-16.39
252	289.17097685	-37.17
188	177.85419834	10.15
259	204.97330630	54.03
309	346.12245349	-37.12
478	475.69306515	2.31
234	242.43946996	-8.44
307	334.62096589	-27.62
286	301.97193421	-15.97
401	415.50827287	-14.51
390	386.96874014	3.03
454	444.20383388	9.8
307	341.24519098	-34.25
350	280.68437505	69.32
280	297.19878323	-17.2
311	348.40506658	-37.41

Mean Square Error = 758.562274

Desired Output	Predict	Error
460	464.27349544	-4.27
294	290.23782446	3.76
326	307.37954838	18.62
268	264.56320269	3.44
320	320.52930340	-0.53
460	443.68880231	16.31
153	173.16384879	-20.16
440	429.41773664	10.58
325	325.22439037	-0.22
360	350.09482420	9.91
456	460.30154598	-4.3
471	462.36497659	8.64
328	246.30258130	81.7
471	461.74762042	9.25
214	219.57542546	-5.58
156	173.87500328	-17.88
230	223.53419166	6.47
459	450.29647064	8.7
232	225.16010972	6.84
236	231.83851882	4.16
484	474.58691154	9.41
232	223.42636851	8.57
231	223.23137339	7.77
239	235.68880056	3.31
242	224.45234572	17.55
466	453.78657077	12.21
340	256.59233032	83.41
315	309.61818748	5.38
322	325.37125720	-3.37
470	469.93390450	0.07
405	365.83540031	39.16

Mean Square Error = 576.817339

Desired Output	Predict	Error
398	355.36739691	42.63
472	480.41222585	-8.41
416	396.85530685	19.14
344	336.09071370	7.91

469	460.28529017	8.71
424	394.12439330	29.88
215	220.88114954	-5.88
382	368.76763438	13.23
296	302.65608092	-6.66
462	452.58189829	9.42
238	240.34414285	-2.34
251	267.05684339	-16.06
253	265.86739859	-12.87
489	477.06510040	11.93
265	267.56886697	-2.57
314	298.55231848	15.45
335	327.08171958	7.92
259	267.56112943	-8.56
483	478.98929726	4.01
218	216.27001859	1.73
253	266.02361846	-13.02
465	454.82222975	10.18
172	175.97140843	-3.97
211	225.29289884	-14.29
357	350.75923737	6.24
448	436.25705412	11.74
413	366.68034887	46.32
490	478.60340040	11.4
469	460.79127016	8.21
291	292.47496111	-1.47
341	337.64782636	3.35

Mean Square Error = 246.007897

Desired Output	Predict	Error
248	244.79708299	3.2
441	421.08004708	19.92
447	429.12867325	17.87
156	174.48254845	-18.48
276	265.97480158	10.03
290	287.17605958	2.82
319	318.36516793	0.63
233	221.05890640	11.94
450	432.82549419	17.17
339	327.42543204	11.57
314	240.23657975	73.76
209	217.74679929	-8.75
290	285.81469477	4.19
475	465.30364023	9.7
305	296.85271961	8.15
465	465.61289172	-0.61
325	328.60692774	-3.61
360	275.01039966	84.99
230	221.33416429	8.67
250	231.60308882	18.4
291	287.85088458	3.15
245	233.26118912	11.74
216	212.90912905	3.09
471	454.64645349	16.35
370	352.67243829	17.33
292	276.33107268	15.67
377	355.54295725	21.46
294	298.27540032	-4.28
153	174.05045142	-21.05

420		376.07215306		43.93
486		473.72518245		12.27

Mean Square Error = 615.049419

Desired Output		Predict		Error
240		231.50198701		8.5
430		409.07153859		20.93
333		331.63914648		1.36
252		265.95878544		-13.96
490		480.47794651		9.52
488		479.34951851		8.65
238		223.05161116		14.95
345		339.87610885		5.12
315		306.04850914		8.95
274		267.50992681		6.49
475		481.01649138		-6.02
225		214.92856667		10.07
323		316.39031245		6.61
288		275.89654604		12.1
427		401.99824693		25.0
153		175.29050624		-22.29
178		177.12170460		0.88
192		179.12547040		12.87
315		316.83259872		-1.83
297		276.01391455		20.99
308		303.89252335		4.11
288		286.90354409		1.1
230		218.21313969		11.79
244		229.87317816		14.13
410		355.90694806		54.09
303		306.69606775		-3.7
438		404.59164370		33.41
240		225.06298065		14.94
247		243.72672808		3.27
313		315.94204227		-2.94
209		220.82211402		-11.82

Mean Square Error = 261.2591

Desired Output		Predict		Error
215		227.12062002		-12.12
153		173.01222508		-20.01
435		455.27705042		-20.28
417		410.52590823		6.47
374		390.18292313		-16.18
298		329.87455301		-31.87
288		253.45336167		34.55
486		479.12111612		6.88
296		311.00264657		-15.0
490		481.08820880		8.91
303		305.63342702		-2.63
490		481.01996248		8.98
431		442.99186804		-11.99
236		238.55737158		-2.56
317		343.23033749		-26.23
315		338.05490403		-23.05
270		227.34384876		42.66
153		173.05268044		-20.05

156	174.11489107	-18.11
445	438.31743818	6.68
331	361.19014476	-30.19
247	258.65731280	-11.66
290	267.09487005	22.91
209	231.40976363	-22.41
362	370.30827781	-8.31
422	432.71762492	-10.72
231	238.00979999	-7.01
470	470.06795915	-0.07
300	331.41761819	-31.42
207	182.00539039	24.99
153	173.02898059	-20.03

Mean Square Error = 393.40361

Desired Output	Predict	Error
246	254.40333697	-8.4
246	203.18990146	42.81
210	236.10750121	-26.11
212	236.51556175	-24.52
164	173.43021408	-9.43
327	340.28169394	-13.28
245	244.86042909	0.14
213	236.07362054	-23.07
240	240.67956099	-0.68
433	442.01446769	-9.01
467	468.46143709	-1.46
340	346.49329780	-6.49
288	309.85906648	-21.86
468	479.89231959	-11.89
420	417.07273077	2.93
427	437.87945892	-10.88
208	236.20853121	-28.21
208	234.04629558	-26.05
390	410.07321534	-20.07
468	469.66253165	-1.66
168	173.88847498	-5.89
333	353.77679411	-20.78
153	171.81252411	-18.81
234	240.37321933	-6.37
455	460.49495834	-5.49
153	171.74961500	-18.75
308	335.26300455	-27.26
465	462.74641228	2.25
490	481.12626846	8.87
478	481.04961318	-3.05
209	234.42822476	-25.43

Mean Square Error = 305.200942

Desired Output	Predict	Error
221	222.42651208	-1.43
329	353.97618867	-24.98
237	191.74847717	45.25
249	275.14598553	-26.15
444	450.27978426	-6.28
410	418.91067050	-8.91
154	179.39711293	-25.4

470	469.00487612	1.0
396	409.38876975	-13.39
241	235.22200727	5.78
489	480.64891675	8.35
209	230.63672953	-21.64
271	289.20498853	-18.2
250	286.59654065	-36.6
262	287.53664108	-25.54
471	469.68698913	1.31
488	479.38367975	8.62
490	480.51924651	9.48
156	179.87805237	-23.88
217	224.14344696	-7.14
451	462.82966065	-11.83
390	374.72903517	15.27
256	285.45653279	-29.46
243	240.42225225	2.58
165	180.26710909	-15.27
404	414.00499094	-10.0
300	319.00694943	-19.01
317	348.86918802	-31.87
214	231.58745766	-17.59
450	440.77109613	9.23
214	230.69246061	-16.69

Mean Square Error = 374.658797

***** Mean Square Error Average : 430.6862 *****
116.535597

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.06

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output | Predict | Error

490	476.77946774	13.22
488	475.38145429	12.62
290	287.73935513	2.26
420	382.23004218	37.77
471	458.72906720	12.27
265	263.78973287	1.21
236	231.30408047	4.7
322	306.86665041	15.13
329	319.41628906	9.58
360	347.94323831	12.06
164	177.34292754	-13.34
305	297.15481388	7.85
490	476.64579152	13.35
314	298.71370156	15.29
413	366.68974397	46.31
328	246.10727237	81.89
433	396.48533926	36.51
156	177.14436508	-21.14
212	221.32447554	-9.32
328	327.65124204	0.35

310	303.02044897	6.98
296	300.75256938	-4.75
168	177.68296062	-9.68
490	476.34386929	13.66
298	302.53773832	-4.54
486	472.91556347	13.08
457	443.60329181	13.4
303	303.74522406	-0.75
444	429.28216495	14.72
490	476.16444888	13.84
160	177.18358282	-17.18

Mean Square Error = 490.379758

Desired Output	Predict	Error
374	386.01869421	-12.02
156	174.72673915	-18.73
469	470.26818864	-1.27
307	325.69379019	-18.69
286	293.72680276	-7.73
230	234.42191067	-4.42
156	174.81633059	-18.82
457	453.22852802	3.77
247	258.24231170	-11.24
241	233.57527811	7.42
370	385.44127946	-15.44
436	444.79009025	-8.79
489	481.82731523	7.17
209	230.78757692	-21.79
230	226.30233714	3.7
469	468.79608827	0.2
471	471.40549706	-0.41
232	236.01999787	-4.02
270	252.93856370	17.06
486	481.71864405	4.28
280	241.37593198	38.62
288	252.41270244	35.59
253	281.94178960	-28.94
315	342.33749552	-27.34
260	253.02726301	6.97
311	331.78258090	-20.78
209	229.90827368	-20.91
209	230.06445783	-21.06
214	229.81187942	-15.81
327	345.75081182	-18.75
259	208.48260314	50.52

Mean Square Error = 371.441413

Desired Output	Predict	Error
428	391.57921693	36.42
172	177.64355819	-5.64
335	325.21156080	9.79
153	176.14255184	-23.14
248	243.99321367	4.01
465	453.03292502	11.97
445	417.44322626	27.56
237	189.06556640	47.93
259	264.43170030	-5.43

357	349.82440319	7.18
153	176.07172146	-23.07
309	308.60569078	0.39
435	439.52163119	-4.52
333	333.00113139	-0.0
472	480.70075532	-8.7
178	177.90616175	0.09
211	222.04434300	-11.04
349	341.93219708	7.07
291	291.22398513	-0.22
214	220.19067533	-6.19
153	176.27871506	-23.28
390	374.98074478	15.02
470	468.85918192	1.14
303	292.54619302	10.45
253	261.85733463	-8.86
460	443.66619612	16.33
240	231.85558355	8.14
213	221.07527093	-8.08
294	280.55357599	13.45
215	216.09436214	-1.09
156	176.84011559	-20.84

Mean Square Error = 261.183052

Desired Output	Predict	Error
459	448.77217505	10.23
252	266.40639388	-14.41
217	216.90260288	0.1
234	228.38072207	5.62
236	228.15432152	7.85
313	312.97989972	0.02
337	331.68204766	5.32
294	291.48490421	2.52
211	226.02442246	-15.02
377	355.18670972	21.81
462	451.78510301	10.21
320	318.00770705	1.99
470	478.94992532	-8.95
214	222.42901493	-8.43
245	233.11130078	11.89
447	460.82811771	-13.83
412	410.04923337	1.95
234	226.17801637	7.82
294	296.54510262	-2.55
247	247.34359416	-0.34
209	223.58236413	-14.58
470	460.87364143	9.13
268	266.51191083	1.49
351	337.06500281	13.93
325	324.11956346	0.88
210	225.62643666	-15.63
465	448.10477083	16.9
362	343.16254750	18.84
427	401.78990457	25.21
225	217.05053207	7.95
245	234.96106078	10.04

Mean Square Error = 128.464729

Desired Output	Predict	Error
417	372.10657667	44.89
291	289.36040636	1.64
280	268.51962526	11.48
456	458.80799235	-2.81
242	223.60276426	18.4
231	224.02999961	6.97
330	322.83723195	7.16
153	173.14235317	-20.14
410	352.80424092	57.2
370	307.08667866	62.91
368	351.20255166	16.8
455	441.96623370	13.03
238	222.67256519	15.33
256	263.80141873	-7.8
235	222.40188299	12.6
288	286.07893426	1.92
441	424.84661536	16.15
239	234.29036090	4.71
424	390.38915397	33.61
252	265.42683033	-13.43
345	337.23142010	7.77
470	459.17345728	10.83
314	242.96371194	71.04
153	173.01201585	-20.01
405	372.11021178	32.89
315	305.37318177	9.63
481	478.96279255	2.04
250	235.05999325	14.94
262	264.83702793	-2.84
246	241.27769547	4.72
240	225.20385190	14.8

Mean Square Error = 645.494319

Desired Output	Predict	Error
468	474.25328485	-6.25
274	288.93991369	-14.94
153	177.16142356	-24.16
481	477.54192173	3.46
251	285.09444294	-34.09
240	236.78683099	3.21
410	421.91262454	-11.91
154	177.57371784	-23.57
308	324.60022193	-16.6
361	384.84235944	-23.84
467	466.97066789	0.03
290	314.03252282	-24.03
344	370.06793751	-26.07
339	364.12664525	-25.13
270	221.78303758	48.22
221	222.04513916	-1.05
353	380.41873858	-27.42
331	365.71034655	-34.71
464	473.11657244	-9.12
404	417.31077983	-13.31
243	239.45343921	3.55
215	227.63227501	-12.63
207	184.03141416	22.97

276	290.32813157	-14.33
360	297.85528715	62.14
292	303.48608720	-11.49
350	280.27451565	69.73
489	479.85180206	9.15
213	231.67013766	-18.67
208	230.42906165	-22.43
209	230.35943552	-21.36

Mean Square Error = 682.449268

Desired Output	Predict	Error
323	312.97333968	10.03
216	217.79894672	-1.8
328	332.62209882	-4.62
317	315.07921711	1.92
325	329.64889577	-4.65
412	377.72667925	34.27
356	344.27003570	11.73
294	297.78134550	-3.78
390	349.67736420	40.32
326	308.79725575	17.2
303	291.48420313	11.52
454	432.93291836	21.07
315	309.27271051	5.73
397	390.77752921	6.22
245	237.95483433	7.05
401	391.10373125	9.9
490	477.72107982	12.28
322	320.41278471	1.59
490	478.76573881	11.23
430	412.17679366	17.82
470	461.56423305	8.44
300	289.25698526	10.74
438	409.87194103	28.13
218	216.04050425	1.96
215	220.89018721	-5.89
246	195.16847539	50.83
305	303.09256706	1.91
475	479.88234489	-4.88
393	382.88701225	10.11
271	267.19707764	3.8
483	479.06929070	3.93

Mean Square Error = 275.835223

Desired Output	Predict	Error
296	286.60167282	9.4
231	224.70374227	6.3
333	330.81264441	2.19
484	474.94122429	9.06
153	172.07926668	-19.08
376	361.78169208	14.22
165	173.15569006	-8.16
246	239.67053666	6.33
385	373.43388924	11.57
317	315.99007951	1.01
247	243.67297649	3.33
224	182.70786374	41.29

238	238.61334272	-0.61
381	368.59066899	12.41
398	353.73384607	44.27
215	217.98219085	-2.98
478	480.64599481	-2.65
250	266.45262937	-16.45
297	278.33449896	18.67
307	306.66133359	0.34
390	367.82475825	22.18
467	456.07441228	10.93
390	377.26802980	12.73
416	396.57847198	19.42
319	319.65362017	-0.65
382	367.64970917	14.35
471	461.43223233	9.57
468	478.62507349	-10.63
475	471.33526372	3.66
448	439.95510505	8.04
450	421.73133798	28.27

Mean Square Error = 255.704629

Desired Output	Predict	Error
300	241.97464629	58.03
155	173.18451037	-18.18
290	254.33464451	35.67
209	221.25163231	-12.25
450	438.53093521	11.47
465	473.37890557	-8.38
440	426.30285300	13.7
420	383.82247856	36.18
488	476.66337146	11.34
308	302.92993646	5.07
315	309.65554940	5.34
232	221.75095959	10.25
447	434.51650953	12.48
466	452.83972878	13.16
437	420.76237427	16.24
340	327.72394597	12.28
422	402.06096161	19.94
311	313.72277070	-2.72
235	226.33431452	8.67
188	175.05566439	12.94
249	255.39998487	-6.4
233	223.89802427	9.1
341	337.34003964	3.66
208	222.79190228	-14.79
230	224.08711792	5.91
471	461.79442968	9.21
322	327.26001416	-5.26
333	330.39631135	2.6
490	479.35566850	10.64
210	222.62153603	-12.62
293	297.04893674	-4.05

Mean Square Error = 299.896887

Desired Output	Predict	Error
255	254.04631143	0.95

444	453.98934547	-9.99
192	176.67269963	15.33
433	444.45916561	-11.46
308	336.25835494	-28.26
365	389.82597279	-24.83
306	326.09507768	-20.1
302	317.16583995	-15.17
340	272.10070243	67.9
319	343.60463198	-24.6
470	469.54796451	0.45
234	243.39794620	-9.4
485	479.71369928	5.29
478	476.73429987	1.27
451	465.81741620	-14.82
380	351.30256637	28.7
288	309.47923126	-21.48
490	480.19339155	9.81
232	236.63886466	-4.64
431	445.10001433	-14.1
327	339.08176644	-12.08
300	331.62890979	-31.63
468	469.48557663	-1.49
153	171.04990225	-18.05
328	361.37796246	-33.38
284	292.49514976	-8.5
244	244.16640711	-0.17
153	171.08964728	-18.09
460	472.48561527	-12.49
208	234.13746838	-26.14
396	415.55437839	-19.55

Mean Square Error = 447.77471

***** Mean Square Error Average : 385.8624 *****
128.464729

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.07

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output | Predict | Error

240	227.74299975	12.26
337	329.78041223	7.22
401	386.86509758	14.13
370	351.44474140	18.56
307	301.26269807	5.74
314	295.28453140	18.72
328	328.04538307	-0.05
335	322.11686236	12.88
280	240.39343616	39.61
156	168.82900524	-12.83
390	373.76304263	16.24
327	308.81856730	18.18
360	347.58475705	12.42
296	297.54898529	-1.55

468	461.48042456	6.52
350	264.06861107	85.93
315	299.59733010	15.4
381	367.50121999	13.5
305	300.39354257	4.61
356	341.64492879	14.36
262	264.61634597	-2.62
244	231.48880005	12.51
323	310.60315323	12.4
385	373.02973139	11.97
340	258.93437566	81.07
390	341.97660009	48.02
209	223.50479064	-14.5
231	227.66900378	3.33
207	176.28014898	30.72
153	167.73346955	-14.73
213	223.47102680	-10.47

Mean Square Error = 731.741552

Desired Output	Predict	Error
368	355.83636416	12.16
469	458.99379966	10.01
322	323.56147727	-1.56
209	221.13488209	-12.13
232	226.24196387	5.76
238	224.73410727	13.27
445	416.68810503	28.31
309	306.30065700	2.7
380	335.19235505	44.81
328	249.46191065	78.54
291	286.27007914	4.73
319	309.23548198	9.76
245	235.67299498	9.33
315	307.60349720	7.4
469	460.52465354	8.48
468	475.69062980	-7.69
221	213.15925665	7.84
241	222.98815114	18.01
464	466.39459464	-2.39
192	173.33976224	18.66
237	185.76439890	51.24
234	226.40721115	7.59
470	461.17599227	8.82
308	304.33591725	3.66
280	268.01269046	11.99
300	286.97586711	13.02
255	242.57987381	12.42
248	244.14178608	3.86
333	327.66423354	5.34
424	396.55169274	27.45
290	263.02004124	26.98

Mean Square Error = 499.646726

Desired Output	Predict	Error
330	351.30830628	-21.31
404	414.00352982	-10.0
481	482.15571489	-1.16

447	471.71525802	-24.72
431	440.75246164	-9.75
447	454.06925740	-7.07
246	195.86729259	50.13
486	481.41726458	4.58
490	481.26826058	8.73
286	296.57543258	-10.58
329	353.13252700	-24.13
365	385.39005696	-20.39
245	246.63706730	-1.64
164	175.57346848	-11.57
305	324.09211291	-19.09
466	465.46270474	0.54
413	398.50550244	14.49
246	254.01864990	-8.02
232	234.46501995	-2.47
271	288.20053787	-17.2
239	249.22277084	-10.22
405	402.45127436	2.55
300	334.45771095	-34.46
412	435.69456264	-23.69
484	479.18725358	4.81
250	248.01151526	1.99
374	387.50269437	-13.5
168	175.93266842	-7.93
327	349.28598143	-22.29
427	435.35165911	-8.35
325	359.36813622	-34.37

Mean Square Error = 322.225416

Desired Output	Predict	Error
467	460.40215938	6.6
328	330.72998195	-2.73
247	245.73330305	1.27
390	378.38499550	11.62
153	169.46713959	-16.47
251	267.73393502	-16.73
215	222.34165548	-7.34
250	268.34591434	-18.35
224	181.67425008	42.33
376	361.71333878	14.29
252	267.42434899	-15.42
160	170.56821523	-10.57
313	313.29160334	-0.29
317	313.46819320	3.53
236	229.76772709	6.23
490	480.31618275	9.68
420	382.01983244	37.98
215	220.47365809	-5.47
433	419.37345401	13.63
209	225.65354560	-16.65
155	170.18735566	-15.19
303	292.20725186	10.79
490	480.21541715	9.78
209	225.60432827	-16.6
265	266.82433797	-1.82
471	465.40543533	5.59
441	431.45744833	9.54
302	294.77819580	7.22

214	225.01194090	-11.01
333	327.57516979	5.42
243	229.69264868	13.31

Mean Square Error = 218.684487

Desired Output	Predict	Error
440	450.06147009	-10.06
208	234.53011410	-26.53
218	225.08330721	-7.08
488	482.01840699	5.98
478	483.11412471	-5.11
470	477.28865702	-7.29
288	312.70914731	-24.71
416	425.84949345	-9.85
349	373.52124710	-24.52
333	362.55833471	-29.56
331	364.02333960	-33.02
315	345.60863826	-30.61
436	446.05811591	-10.06
468	476.37533545	-8.38
456	471.47974711	-15.48
233	237.42965014	-4.43
259	287.61575859	-28.62
471	472.42911344	-1.43
296	312.50767738	-16.51
252	287.10920479	-35.11
322	353.36478571	-31.36
253	285.83477667	-32.83
470	471.88981311	-1.89
457	462.83752653	-5.84
465	462.91027993	2.09
427	430.75455219	-3.75
319	350.21970270	-31.22
291	319.05912807	-28.06
153	172.88936546	-19.89
211	236.40954320	-25.41
410	420.12220563	-10.12

Mean Square Error = 418.075768

Desired Output	Predict	Error
420	382.40415078	37.6
478	472.20191946	5.8
326	306.95028882	19.05
290	288.20709484	1.79
306	295.64870986	10.35
209	224.06233261	-15.06
245	233.72471174	11.28
448	440.72839989	7.27
459	449.53920997	9.46
260	243.85618321	16.14
256	264.43013455	-8.43
410	354.32571666	55.67
298	301.82599845	-3.83
483	478.63469217	4.37
212	226.04730714	-14.05
486	475.32554828	10.67
232	225.31191508	6.69

460	464.04611331	-4.05
430	409.03643756	20.96
428	384.81759195	43.18
274	267.12453800	6.88
153	170.48246644	-17.48
293	293.69667410	-0.7
444	430.82057797	13.18
153	170.30109350	-17.3
472	479.59184193	-7.59
360	280.66795209	79.33
396	376.25314024	19.75
210	225.63855169	-15.64
294	297.89624635	-3.9
208	225.27216274	-17.27

Mean Square Error = 538.164774

Desired Output	Predict	Error
308	300.97020870	7.03
393	382.24740756	10.75
311	310.18584322	0.81
236	236.19841807	-0.2
437	425.09729842	11.9
455	447.53084478	7.47
188	173.26060487	14.74
490	479.45136898	10.55
470	463.53627466	6.46
435	444.14153541	-9.14
246	244.63585414	1.36
405	363.74104503	41.26
214	223.18273408	-9.18
303	303.20982338	-0.21
322	305.89555970	16.1
490	479.89018483	10.11
344	332.95987317	11.04
339	327.27941314	11.72
242	229.36702879	12.63
288	285.00245343	3.0
398	350.83531792	47.16
211	226.27130409	-15.27
294	281.53786725	12.46
465	458.03980346	6.96
300	244.08770193	55.91
240	236.29251957	3.71
328	327.11926191	0.88
231	227.93040677	3.07
317	315.14792679	1.85
310	302.67701320	7.32
156	171.10183768	-15.1

Mean Square Error = 306.145242

Desired Output	Predict	Error
382	367.30533618	14.69
341	336.20556321	4.79
217	214.66133652	2.34
311	304.49310787	6.51
470	458.83131202	11.17
450	420.91230195	29.09

294	291.99198974	2.01
489	476.51823908	12.48
481	472.84747204	8.15
490	478.27902605	11.72
234	229.14831171	4.85
433	396.67762081	36.32
489	477.50777569	11.49
422	402.92856936	19.07
153	176.44207227	-23.44
294	298.08304549	-4.08
235	225.68974379	9.31
467	454.68523422	12.31
488	475.67242208	12.33
307	300.58403220	6.42
290	287.30185482	2.7
471	461.01075444	9.99
438	405.52357966	32.48
172	177.59882553	-5.6
303	291.57430168	11.43
215	218.87195328	-3.87
214	221.37015922	-7.37
412	374.67326856	37.33
225	214.63813334	10.36
238	236.36158767	1.64
471	460.06593627	10.93

Mean Square Error = 241.077545

Desired Output	Predict	Error
249	254.97188141	-5.97
361	347.09018552	13.91
485	477.92954248	7.07
209	226.10583929	-17.11
444	439.21735825	4.78
362	339.45084039	22.55
284	269.74915747	14.25
325	321.74334237	3.26
475	471.61289516	3.39
305	294.59048344	10.41
465	471.70585359	-6.71
297	273.81311950	23.19
156	168.94412661	-12.94
210	227.94062003	-17.94
470	478.34972540	-8.35
397	382.06452920	14.94
454	429.97237869	24.03
216	221.20174969	-5.2
288	243.43865185	44.56
370	302.22242241	67.78
320	317.53927973	2.46
276	266.48652118	9.51
268	264.76611044	3.23
178	170.87159857	7.13
340	317.36518553	22.63
462	455.09142192	6.91
208	226.44896186	-18.45
308	293.70599692	14.29
377	356.24149733	20.76
270	223.51835668	46.48
460	443.91926726	16.08

Mean Square Error = 454.779068

Desired Output	Predict	Error
490	479.62542408	10.37
215	218.38264658	-3.38
153	171.61358853	-18.61
259	206.12717485	52.87
475	479.54782516	-4.55
153	171.54675598	-18.55
288	275.27667004	12.72
247	246.03398386	0.97
156	172.36869315	-16.37
153	171.67227600	-18.67
417	374.74270968	42.26
390	361.62179261	28.38
240	227.33791885	12.66
247	244.64390053	2.36
353	344.38443316	8.62
234	225.26858109	8.73
230	225.28181269	4.72
451	450.45477834	0.55
213	223.67790604	-10.68
351	337.68230117	13.32
357	348.32135973	8.68
230	225.71770638	4.28
457	436.94275323	20.06
235	224.84343998	10.16
314	244.46464898	69.54
490	479.52149557	10.48
154	172.13614188	-18.14
270	240.84821708	29.15
253	264.44302332	-11.44
292	277.38401941	14.62
345	337.77491028	7.23

Mean Square Error = 475.709213

***** Mean Square Error Average : 420.625 *****
218.684487

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.08

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
156	181.42925956	-25.43
248	243.26952478	4.73
326	311.24466331	14.76
323	311.01563710	11.98
208	217.08756164	-9.09
485	475.55357254	9.45
305	294.92427473	10.08
410	355.81769915	54.18

153	181.02367511	-28.02
420	382.10015373	37.9
291	289.14530994	1.85
209	218.67800750	-9.68
306	294.38747282	11.61
292	273.20428697	18.8
265	261.82663430	3.17
290	286.90288135	3.1
390	371.33856345	18.66
319	308.47808228	10.52
433	413.08699314	19.91
290	262.42929247	27.57
445	415.02553387	29.97
231	220.65403639	10.35
251	262.13436027	-11.13
230	221.24637858	8.75
234	223.20742505	10.79
232	220.53196850	11.47
209	218.69456980	-9.69
211	221.10770105	-10.11
215	216.60055972	-1.6
337	331.07317709	5.93
247	241.79566813	5.2

Mean Square Error = 335.354561

Desired Output	Predict	Error
437	424.23039196	12.77
465	472.94831838	-7.95
311	302.94886789	8.05
250	266.35666962	-16.36
362	343.26529264	18.73
475	473.05427249	1.95
457	450.04107643	6.96
456	462.55664409	-6.56
291	288.26317953	2.74
214	223.81348971	-9.81
412	373.64023408	38.36
153	170.96729097	-17.97
417	377.03476570	39.97
216	217.82752101	-1.83
178	172.77927946	5.22
155	171.56382057	-16.56
328	331.77925660	-3.78
330	316.68364064	13.32
490	479.84155272	10.16
235	226.25545207	8.74
457	438.70105706	18.3
303	290.78195005	12.22
210	225.37244855	-15.37
325	322.30434567	2.7
483	480.26604781	2.73
213	224.86638771	-11.87
309	307.04678417	1.95
153	171.12909894	-18.13
357	346.28128715	10.72
488	477.66665542	10.33
365	349.95997645	15.04

Mean Square Error = 220.424242

Desired Output	Predict	Error
302	318.80686831	-16.81
469	470.30058898	-1.3
217	223.79151682	-6.79
398	377.83377248	20.17
490	482.33567983	7.66
490	482.36872099	7.63
340	277.24930581	62.75
385	406.61517323	-21.62
288	309.70531962	-21.71
360	385.63873448	-25.64
381	402.12861567	-21.13
328	360.49079496	-32.49
331	359.55959412	-28.56
405	389.72449941	15.28
153	172.94378410	-19.94
412	426.26918156	-14.27
322	333.80489453	-11.8
315	338.29973906	-23.3
490	482.36580534	7.63
300	331.88637797	-31.89
240	238.05920469	1.94
486	481.60939826	4.39
236	237.74011735	-1.74
308	330.21593549	-22.22
438	427.60834212	10.39
188	175.92372621	12.08
401	416.77273396	-15.77
314	260.09709419	53.9
448	458.94434851	-10.94
305	323.46889675	-18.47
286	295.65071877	-9.65

Mean Square Error = 509.003768

Desired Output	Predict	Error
252	265.36377394	-13.36
459	449.47699676	9.52
246	191.35284462	54.65
208	222.12529287	-14.13
214	221.10659733	-7.11
156	172.80052461	-16.8
380	328.33536869	51.66
232	224.30049663	7.7
460	440.40461524	19.6
214	220.15687511	-6.16
490	478.25208136	11.75
447	454.43185721	-7.43
231	223.56800184	7.43
353	344.84670791	8.15
296	284.39910552	11.6
294	297.81482560	-3.81
440	428.88659483	11.11
344	332.78754049	11.21
430	410.97933972	19.02
307	299.35085701	7.65
484	474.34243655	9.66
245	229.93888841	15.06

209	221.33767974	-12.34
308	308.26199789	-0.26
471	461.38386310	9.62
433	392.96601772	40.03
156	173.03617763	-17.04
462	452.27436413	9.73
259	202.48675983	56.51
350	263.24127207	86.76
431	418.12036398	12.88

Mean Square Error = 693.893774

Desired Output	Predict	Error
215	218.45649300	-3.46
296	300.16856207	-4.17
427	410.89139846	16.11
284	272.62882946	11.37
333	328.89816499	4.1
293	293.94454674	-0.94
464	468.10593890	-4.11
260	243.62814509	16.37
327	315.24273222	11.76
209	223.69756074	-14.7
236	235.74540777	0.25
396	378.12170590	17.88
268	267.65367565	0.35
339	326.29103866	12.71
427	403.77926379	23.22
246	244.73809311	1.26
470	462.22493118	7.78
271	268.10240011	2.9
307	303.90632696	3.09
297	277.12009828	19.88
489	477.44930461	11.55
467	459.09408406	7.91
490	478.60175936	11.4
270	220.37251127	49.63
192	171.53981119	20.46
390	342.14672249	47.85
486	476.16387020	9.84
241	226.29086087	14.71
472	479.57880491	-7.58
333	327.55753365	5.44
351	336.41362280	14.59

Mean Square Error = 280.046113

Desired Output	Predict	Error
230	220.94622122	9.05
436	421.31035568	14.69
478	478.50195855	-0.5
238	240.48657208	-2.49
471	461.32487436	9.68
481	472.76240342	8.24
233	226.56986889	6.43
247	247.76183583	-0.76
211	226.96604718	-15.97
410	387.43371428	22.57
488	477.02649790	10.97

209	224.14554674	-15.15
288	243.88312045	44.12
245	239.48985388	5.51
250	240.63358651	9.37
315	312.64303513	2.36
444	430.42509027	13.57
470	469.22194258	0.78
249	256.93016471	-7.93
454	428.33941824	25.66
298	302.02847021	-4.03
244	233.17043902	10.83
245	236.34134026	8.66
160	168.80156491	-8.8
428	382.18638858	45.81
253	266.64712662	-13.65
404	381.17225559	22.83
259	267.82303200	-8.82
274	268.94813693	5.05
322	320.24019630	1.76
455	443.41835091	11.58

Mean Square Error = 255.835387

Desired Output	Predict	Error
313	344.34003959	-31.34
490	482.20934047	7.79
368	387.84923419	-19.85
361	381.66743186	-20.67
153	177.78585744	-24.79
239	248.06516504	-9.07
315	331.64769490	-16.65
310	332.82160431	-22.82
240	235.34756944	4.65
308	324.77630881	-16.78
280	292.45849649	-12.46
470	470.05053690	-0.05
300	316.78595623	-16.79
153	177.85612700	-24.86
328	261.72895767	66.27
405	407.46576424	-2.47
243	238.48714339	4.51
172	179.30690111	-7.31
165	179.04161564	-14.04
397	413.91149954	-16.91
238	232.32962328	5.67
262	286.33996350	-24.34
444	451.80875277	-7.81
303	321.61220739	-18.61
230	234.64970564	-4.65
253	283.97422469	-30.97
294	327.09852153	-33.1
320	350.31853374	-30.32
235	236.70649743	-1.71
460	472.57784786	-12.58
314	322.96465736	-8.96

Mean Square Error = 449.710129

Desired Output	Predict	Error

288	285.53375266	2.47
450	440.75727700	9.24
232	225.90190348	6.1
376	359.84861407	16.15
333	325.20701715	7.79
465	450.08559280	14.91
153	168.68258894	-15.68
468	459.83947044	8.16
469	459.47838596	9.52
450	422.10351845	27.9
317	313.98440664	3.02
213	223.92409425	-10.92
356	341.14534086	14.85
300	243.74160063	56.26
478	472.77837839	5.22
168	170.20396329	-2.2
470	462.31512583	7.68
247	245.46092378	1.54
413	365.64694392	47.35
341	333.45931136	7.54
335	322.39744642	12.6
327	311.14075658	15.86
294	279.94264305	14.06
420	379.06118271	40.94
153	168.83484921	-15.83
345	335.96326516	9.04
252	265.08101809	-13.08
280	237.49626605	42.5
303	302.64473131	0.36
242	226.83525752	15.16
447	436.87774344	10.12

Mean Square Error = 409.240913

Desired Output	Predict	Error
471	461.39066435	9.61
288	271.82814618	16.17
256	262.22432753	-6.22
234	229.61823792	4.38
209	222.67657880	-13.68
317	310.39156734	6.61
470	475.70187776	-5.7
349	335.65689224	13.34
422	404.02913292	17.97
224	177.87674550	46.12
481	477.39262912	3.61
370	309.20616642	60.79
468	467.88725116	0.11
424	395.14484474	28.86
441	429.12416283	11.88
416	398.02500912	17.97
153	164.16927841	-11.17
315	305.16449287	9.84
322	315.62991865	6.37
370	352.26946639	17.73
489	476.83622628	12.16
451	450.32039549	0.68
382	366.62872556	15.37
467	455.12515295	11.87
340	321.18310427	18.82

471	461.51711978	9.48
490	477.47265308	12.53
470	460.49887043	9.5
237	185.24034804	51.76
270	244.02057384	25.98
210	224.67857289	-14.68

Mean Square Error = 441.007503

Desired Output	Predict	Error
393	381.01459043	11.99
154	168.09698220	-14.1
234	227.68102870	6.32
218	217.75861181	0.24
390	376.03888664	13.96
164	168.91226244	-4.91
360	279.78692285	80.21
221	217.03790485	3.96
290	284.17673556	5.82
374	352.67437797	21.33
390	360.99230034	29.01
475	479.43450118	-4.43
215	221.10106060	-6.1
246	241.24410373	4.76
208	225.07723920	-17.08
276	267.41772688	8.58
329	317.02380476	11.98
215	221.83765288	-6.84
377	354.88339541	22.12
466	454.75621171	11.24
207	177.48327102	29.52
465	456.31004364	8.69
328	329.13571780	-1.14
311	307.54874480	3.45
240	236.04550090	3.95
225	218.97334165	6.03
319	314.65236443	4.35
468	477.07340995	-9.07
435	439.99850981	-5.0
255	243.72991557	11.27
156	168.42172996	-12.42

Mean Square Error = 356.504803

***** Mean Square Error Average : 395.1021 *****
220.424242

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.09

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
470	479.65232276	-9.65
362	342.01107427	19.99

298	302.43055635	-4.43
319	309.87665687	9.12
209	224.36185774	-15.36
307	304.74801502	2.25
361	346.92186614	14.08
315	313.27719808	1.72
489	477.88419039	11.12
270	219.53952160	50.46
208	225.34725145	-17.35
435	435.24994697	-0.25
211	226.83663260	-15.84
484	475.28015927	8.72
165	169.53108366	-4.53
215	221.50756522	-6.51
328	326.29195295	1.71
393	379.96024285	13.04
490	479.14445427	10.86
467	455.67744493	11.32
234	232.34868611	1.65
357	346.46065742	10.54
156	169.09840068	-13.1
481	474.38360634	6.62
296	285.36021866	10.64
470	461.27972810	8.72
232	228.38305408	3.62
238	237.94708256	0.05
242	227.69495565	14.31
265	266.11677166	-1.12
238	226.71360071	11.29

Mean Square Error = 183.311629

Desired Output	Predict	Error
237	183.25554341	53.74
209	224.66018433	-15.66
490	479.40493051	10.6
417	377.29627614	39.7
247	248.12641879	-1.13
350	265.60526514	84.39
481	479.65038017	1.35
469	464.04691100	4.95
306	294.91373729	11.09
290	285.67986497	4.32
300	287.64290895	12.36
213	226.28508197	-13.29
441	432.90727149	8.09
246	245.00076986	1.0
404	385.78843945	18.21
380	324.87711525	55.12
390	373.01129328	16.99
274	267.43712974	6.56
490	479.50716636	10.49
153	167.72019250	-14.72
292	276.63338349	15.37
314	247.74674032	66.25
433	420.38835646	12.61
398	348.09165212	49.91
253	264.88620340	-11.89
256	264.99936119	-9.0
209	224.60187577	-15.6

302	292.04454744	9.96
211	227.31614589	-16.32
422	406.72368902	15.28
303	286.98688466	16.01

Mean Square Error = 810.744013

Desired Output	Predict	Error
360	384.60714114	-24.61
296	326.65367976	-30.65
315	327.38102880	-12.38
320	349.29519088	-29.3
291	312.55679841	-21.56
218	226.21291505	-8.21
374	389.85443466	-15.85
284	293.89346640	-9.89
290	312.35796583	-22.36
243	242.26566495	0.73
160	172.60944388	-12.61
253	284.03917465	-31.04
209	235.56197046	-26.56
276	289.89913538	-13.9
288	309.70447265	-21.7
488	481.87418032	6.13
250	254.18682970	-4.19
488	481.15360377	6.85
450	460.29702683	-10.3
351	372.69004758	-21.69
215	229.52276608	-14.52
427	434.78729518	-7.79
153	171.49233374	-18.49
410	424.26072459	-14.26
436	448.93111774	-12.93
188	174.64339501	13.36
323	342.99227718	-19.99
465	468.97041444	-3.97
353	377.86266324	-24.86
331	359.94727898	-28.95
153	171.82136412	-18.82

Mean Square Error = 338.623384

Desired Output	Predict	Error
460	460.12377893	-0.12
164	169.27332904	-5.27
382	405.20672691	-23.21
249	274.56305610	-25.56
260	258.61263564	1.39
240	242.50792039	-2.51
231	239.28332318	-8.28
271	287.44443872	-16.44
294	325.59746376	-31.6
447	469.42365205	-22.42
239	252.26584635	-13.27
451	468.66344338	-17.66
153	167.69262654	-14.69
270	258.41680715	11.58
246	257.03801499	-11.04
309	339.02681969	-30.03

251	286.61901322	-35.62
245	253.82787512	-8.83
396	416.08099120	-20.08
475	478.79712489	-3.8
328	360.13805903	-32.14
241	238.52896536	2.47
280	291.49767249	-11.5
412	397.14380911	14.86
444	458.64465629	-14.64
322	351.65152939	-29.65
232	237.99992892	-6.0
252	286.31590430	-34.32
290	272.58058849	17.42
445	437.46934064	7.53
208	238.81674177	-30.82

Mean Square Error = 377.533003

Desired Output	Predict	Error
252	266.06524130	-14.07
247	248.28196730	-1.28
207	175.45616593	31.54
470	464.34596773	5.65
469	461.61314914	7.39
308	296.24385223	11.76
401	385.52266930	15.48
356	341.10379997	14.9
310	301.87564000	8.12
305	295.99679584	9.0
248	248.57917482	-0.58
327	314.02693383	12.97
155	167.60895599	-12.61
262	266.35111146	-4.35
322	319.32323137	2.68
214	224.17524083	-10.18
397	388.48489118	8.52
370	352.15575754	17.84
468	478.41563481	-10.42
349	338.90730213	10.09
471	465.21428008	5.79
307	298.34068982	8.66
486	476.53129268	9.47
478	480.30140829	-2.3
454	433.01034573	20.99
308	299.30555015	8.69
420	381.26014637	38.74
490	479.09958484	10.9
470	471.62577081	-1.63
247	247.05084896	-0.05
156	167.69286556	-11.69

Mean Square Error = 179.510613

Desired Output	Predict	Error
431	446.25347992	-15.25
250	285.71311673	-35.71
245	244.81215773	0.19
214	233.29053399	-19.29
288	298.53172934	-10.53

370	324.23771272	45.76
456	472.53477916	-16.53
424	428.27278614	-4.27
327	336.78334286	-9.78
236	239.91523385	-3.92
268	287.11251779	-19.11
303	319.19898412	-16.2
210	235.17706993	-25.18
365	387.14721822	-22.15
240	248.92836437	-8.93
444	455.37780171	-11.38
440	453.62306714	-13.62
280	248.29272582	31.71
297	291.05594560	5.94
246	196.41064959	49.59
314	312.07226631	1.93
259	211.20194012	47.8
455	463.18298631	-8.18
472	482.76422645	-10.76
448	460.97138213	-12.97
330	343.22744642	-13.23
465	478.83031603	-13.83
288	255.35203630	32.65
209	232.85317596	-23.85
438	429.48998833	8.51
405	385.34296782	19.66

Mean Square Error = 491.413829

Desired Output	Predict	Error
377	354.52308413	22.48
464	467.99102710	-3.99
288	283.89638748	4.1
305	301.19801972	3.8
470	462.85140383	7.15
390	376.32684589	13.67
294	279.59354312	14.41
208	227.82303507	-19.82
385	371.61499922	13.39
328	328.81741906	-0.82
486	477.66862984	8.33
390	337.34439666	52.66
317	312.32453987	4.68
412	413.00050775	-1.0
315	304.10507439	10.89
308	304.06199192	3.94
315	305.53782563	9.46
333	323.26168075	9.74
325	325.53534658	-0.54
236	238.73769684	-2.74
240	231.77775814	8.22
430	412.79013470	17.21
305	292.95407481	12.05
153	166.76576164	-13.77
221	219.55662162	1.44
168	168.54330672	-0.54
234	230.89470120	3.11
294	288.62125056	5.38
225	220.99749863	4.0
467	459.61376986	7.39

340		317.27437526		22.73
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Mean Square Error = 196.432661

Desired Output	Predict	Error
232	236.40850923	-4.41
317	340.42512605	-23.43
329	348.48975880	-19.49
465	464.46231731	0.54
428	414.11371420	13.89
471	473.30045477	-2.3
335	353.98823867	-18.99
478	479.74560337	-1.75
381	399.38814337	-18.39
213	233.29520882	-20.3
178	173.16218653	4.84
325	352.09493321	-27.09
300	257.32998970	42.67
460	474.76609291	-14.77
216	226.22318608	-10.22
156	171.67783881	-15.68
235	238.23765424	-3.24
471	472.86899737	-1.87
311	336.05705255	-25.06
405	409.09842106	-4.1
413	400.67480427	12.33
437	446.58629450	-9.59
322	330.07193319	-8.07
215	228.22037405	-13.22
340	276.88836957	63.11
217	225.04514186	-8.05
293	316.98278562	-23.98
313	338.79103029	-25.79
224	183.86225941	40.14
156	171.50984288	-15.51
483	483.40035691	-0.4

Mean Square Error = 441.60371

Desired Output	Predict	Error
457	439.67706737	17.32
447	439.90200142	7.1
376	360.79963586	15.2
153	167.77252629	-14.77
450	424.51569340	25.48
245	237.20860282	7.79
286	272.69701543	13.3
215	223.87153472	-8.87
333	330.34656978	2.65
368	353.65297624	14.35
457	450.74335697	6.26
344	330.57252588	13.43
475	481.02328933	-6.02
416	399.12895609	16.87
192	172.78598545	19.21
210	227.29732871	-17.3
360	279.21000872	80.79
209	225.68938089	-16.69
433	397.66554748	35.33

490	479.50169924	10.5
154	168.23167898	-14.23
339	324.91740048	14.08
485	479.42067509	5.58
490	479.39637600	10.6
230	228.44022838	1.56
234	230.55693132	3.44
303	302.44112262	0.56
212	227.59335730	-15.59
244	234.30783530	9.69
233	228.34909952	4.65
294	295.50118097	-1.5

Mean Square Error = 395.818965

Desired Output	Predict	Error
230	219.45669335	10.54
345	335.17610121	9.82
468	458.31946352	9.68
489	478.11239792	10.89
235	225.69003217	9.31
427	408.91447195	18.09
231	226.36008160	4.64
333	327.04933083	5.95
326	304.63754980	21.36
337	330.15803294	6.84
459	448.66827377	10.33
153	169.09874865	-16.1
230	225.29545054	4.7
471	461.43418289	9.57
259	265.18100143	-6.18
328	249.42875991	78.57
390	360.16372984	29.84
490	477.65558405	12.34
470	459.59825392	10.4
172	170.62759214	1.37
341	333.22784163	7.77
462	451.64567018	10.35
468	467.74811718	0.25
410	356.22695234	53.77
300	302.07487240	-2.07
255	242.96852986	12.03
490	478.88526137	11.11
291	289.41499600	1.59
311	302.40342582	8.6
153	169.15135721	-16.15
466	452.78420425	13.22

Mean Square Error = 421.960223

***** Mean Square Error Average : 383.6952 *****
179.510613

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.1

Momentum rate : 0.07

Activiaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
472	481.36996773	-9.37
252	284.54312493	-32.54
231	239.12445478	-8.12
323	343.13382323	-20.13
270	235.02951254	34.97
481	479.26054751	1.74
280	291.27796652	-11.28
467	469.72266932	-2.72
291	313.90909134	-22.91
471	473.23037921	-2.23
296	324.34333313	-28.34
293	317.24448121	-24.24
478	481.89113502	-3.89
390	383.00760176	6.99
490	481.80913366	8.19
239	254.55900467	-15.56
444	457.95699359	-13.96
209	235.87825803	-26.88
466	468.08142091	-2.08
328	356.34946770	-28.35
153	167.59262671	-14.59
164	169.00712799	-5.01
490	481.90278216	8.1
393	417.08167939	-24.08
215	233.18951232	-18.19
420	422.07563765	-2.08
210	238.29559518	-28.3
455	463.91795406	-8.92
360	300.40435643	59.6
428	415.53056183	12.47
322	349.87549984	-27.88

Mean Square Error = 438.116932

Desired Output	Predict	Error
234	229.79063824	4.21
247	248.03491060	-1.03
303	289.52431331	13.48
464	469.45022353	-5.45
188	170.79917995	17.2
462	455.73932558	6.26
245	235.11445571	9.89
216	219.71378509	-3.71
253	264.26136588	-11.26
245	238.96079542	6.04
260	245.02823843	14.97
209	225.48357183	-16.48
328	325.81153389	2.19
360	346.48839209	13.51
377	354.81318319	22.19
232	229.58720893	2.41
471	465.16578780	5.83
340	323.46751816	16.53
311	302.33736420	8.66
486	477.95988777	8.04
457	450.29221988	6.71

153		167.60343260		-14.6
270		244.36633633		25.63
333		325.02568881		7.97
308		296.05341823		11.95
240		236.09394693		3.91
362		342.44895702		19.55
424		394.98753687		29.01
208		226.44619112		-18.45
457		439.43161572		17.57
410		356.14983588		53.85

Mean Square Error = 270.243697

Desired Output		Predict		Error
465		465.73469142		-0.73
468		476.46745829		-8.47
246		254.82478816		-8.82
236		240.26917076		-4.27
357		383.31768672		-26.32
259		215.30727699		43.69
255		256.65306069		-1.65
351		374.41657603		-23.42
303		316.97380441		-13.97
328		264.95915194		63.04
433		425.67024849		7.33
232		236.39352968		-4.39
214		232.14609753		-18.15
465		477.22932220		-12.23
290		309.76633803		-19.77
333		354.78122107		-21.78
168		166.52235818		1.48
319		346.69718999		-27.7
478		478.46472342		-0.46
397		426.18225374		-29.18
460		462.29778747		-2.3
490		481.81654278		8.18
322		329.76467997		-7.76
431		446.83715960		-15.84
237		186.51740935		50.48
489		481.45623850		7.54
470		472.61647151		-2.62
405		412.85176984		-7.85
469		472.27682754		-3.28
153		164.54007113		-11.54
441		453.81521724		-12.82

Mean Square Error = 448.188323

Desired Output		Predict		Error
305		294.17844288		10.82
300		302.57292532		-2.57
209		222.87263218		-13.87
447		437.16461166		9.84
454		428.88399245		25.12
207		175.54415562		31.46
401		386.76470302		14.24
315		307.14696046		7.85
317		312.52451639		4.48
253		264.41028945		-11.41

481	479.62281130	1.38
244	230.35052131	13.65
211	225.75361303	-14.75
315	311.99187620	3.01
456	461.01692380	-5.02
437	423.21600929	13.78
172	170.08980874	1.91
252	265.51163413	-13.51
471	462.15380918	8.85
374	353.46676106	20.53
234	224.30768318	9.69
212	224.94878485	-12.95
340	261.21754720	78.78
469	459.00779584	9.99
475	471.99194919	3.01
390	342.13958061	47.86
365	350.96633560	14.03
208	221.77329193	-13.77
153	168.68582345	-15.69
241	223.05167454	17.95
308	304.80685048	3.19

Mean Square Error = 438.597729

Desired Output	Predict	Error
294	279.14295699	14.86
286	272.27687243	13.72
292	276.01717758	15.98
460	464.11818433	-4.12
417	373.62453290	43.38
445	414.93246563	30.07
447	462.74342801	-15.74
465	455.07393566	9.93
330	313.59404663	16.41
416	394.58597270	21.41
353	339.63804856	13.36
314	247.15940253	66.84
435	440.90679018	-5.91
470	460.95702275	9.04
256	263.69850532	-7.7
155	167.09645370	-12.1
382	363.98842309	18.01
433	414.82608404	18.17
322	320.56021958	1.44
337	327.40830764	9.59
467	457.28180033	9.72
490	478.47920108	11.52
153	166.65274225	-13.65
232	225.72843015	6.27
475	479.93182997	-4.93
489	476.69444655	12.31
224	177.05716367	46.94
153	166.79422856	-13.79
485	478.31047454	6.69
156	167.09932196	-11.1
311	306.25671952	4.74

Mean Square Error = 434.550097

Desired Output	Predict	Error
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390	411.16098658	-21.16
240	241.05492109	-1.05
247	260.73715239	-13.74
413	404.25795444	8.74
154	170.49173586	-16.49
156	170.92915778	-14.93
320	347.73926246	-27.74
218	225.22887447	-7.23
317	345.40140734	-28.4
248	262.17480429	-14.17
288	299.27793684	-11.28
246	259.09857157	-13.1
370	389.35836978	-19.36
468	471.14879081	-3.15
288	256.97481446	31.03
284	294.72067853	-10.72
192	175.10662900	16.89
470	472.59299961	-2.59
356	379.79915409	-23.8
315	328.00700895	-13.01
486	482.03621209	3.96
249	270.77779587	-21.78
427	434.17481473	-7.17
404	418.99812604	-15.0
238	237.42991116	0.57
308	329.31016898	-21.31
165	171.44089741	-6.44
398	381.54061390	16.46
214	233.68000804	-19.68
326	330.14220108	-4.14
160	170.97737440	-10.98

Mean Square Error = 254.365332

Desired Output	Predict	Error
430	441.92496811	-11.92
333	358.97486016	-25.97
280	254.19364552	25.81
265	285.13740702	-20.14
235	241.61002905	-6.61
315	333.84701857	-18.85
361	382.16288432	-21.16
262	285.06957683	-23.07
268	285.88033920	-17.88
490	481.31808919	8.68
245	249.79304624	-4.79
217	228.17315526	-11.17
368	391.57437622	-23.57
307	328.61902497	-21.62
156	168.50171106	-12.5
490	481.61556131	8.38
288	306.09367364	-18.09
488	480.56388238	7.44
436	450.89435022	-14.89
209	236.39788984	-27.4
240	241.55541635	-1.56
335	355.44335812	-20.44
427	441.70757526	-14.71
234	245.73584716	-11.74

450	447.86593896	2.13
294	318.74227934	-24.74
298	325.81417995	-27.81
276	288.47283610	-12.47
213	236.55116152	-23.55
250	254.02908832	-4.03
470	481.20150128	-11.2

Mean Square Error = 304.218684

Desired Output	Predict	Error
271	267.70573162	3.29
213	225.24692279	-12.25
310	302.70746973	7.29
230	227.37583428	2.62
350	266.81599040	83.18
448	444.70590639	3.29
274	268.40353004	5.6
459	454.17169789	4.83
309	307.36475353	1.64
221	215.45354022	5.55
451	454.75781163	-3.76
235	226.72825179	8.27
405	364.94680786	40.05
209	223.51226459	-14.51
325	327.90785219	-2.91
412	412.93588184	-0.94
297	279.02899490	17.97
247	247.18605112	-0.19
294	290.69574849	3.3
305	296.84967502	8.15
483	480.59413645	2.41
215	219.22298722	-4.22
178	169.95672636	8.04
306	296.58205433	9.42
381	368.03496391	12.97
313	311.47247188	1.53
215	220.91936934	-5.92
250	266.41417778	-16.41
385	373.24941731	11.75
305	302.77589905	2.22
230	227.20100102	2.8

Mean Square Error = 333.813826

Desired Output	Predict	Error
303	302.29615823	0.7
490	480.02561322	9.97
230	222.52336483	7.48
380	329.94618219	50.05
468	477.80119658	-9.8
490	479.75605409	10.24
349	338.64405142	10.36
390	375.14232654	14.86
210	226.86369270	-16.86
470	464.49944502	5.5
327	309.97359706	17.03
327	313.64004642	13.36
153	166.28505539	-13.29

290	285.75626511	4.24
396	381.65679674	14.34
153	166.46667297	-13.47
440	433.75178773	6.25
329	317.79039191	11.21
331	330.45457560	0.55
420	382.42652254	37.57
450	445.58115081	4.42
246	195.59267828	50.41
300	245.99489117	54.01
225	218.60079779	6.4
208	224.67882001	-16.68
214	224.76670980	-10.77
488	479.10751865	8.89
236	236.15644772	-0.16
231	228.86416411	2.14
156	167.21176099	-11.21
345	336.59828922	8.4

Mean Square Error = 397.546587

Desired Output	Predict	Error
422	436.19426485	-14.19
233	239.58419111	-6.58
302	315.05183567	-13.05
291	311.23728323	-20.24
470	478.16712960	-8.17
314	317.15176469	-3.15
251	284.05442059	-33.05
341	365.87252183	-24.87
153	169.53633403	-16.54
444	456.74666288	-12.75
259	284.78791462	-25.79
242	241.66690677	0.33
325	352.97281796	-27.97
296	308.61966089	-12.62
328	361.64420650	-33.64
238	252.90135376	-14.9
211	238.93498720	-27.93
410	424.85446157	-14.85
288	307.99509473	-20.0
471	474.05823093	-3.06
243	244.31213698	-1.31
209	235.90792012	-26.91
307	324.35771970	-17.36
370	323.58672042	46.41
484	480.33457335	3.67
376	396.17563017	-20.18
215	232.20026362	-17.2
300	313.07959591	-13.08
319	338.30035968	-19.3
294	322.68739690	-28.69
438	432.79493815	5.21

Mean Square Error = 410.006006

***** Mean Square Error Average : 372.9647 *****
254.365332

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.11

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
247	248.22709107	-1.23
470	465.05912728	4.94
192	170.95725728	21.04
376	362.17341230	13.83
396	381.39949608	14.6
153	166.38634383	-13.39
236	229.89158666	6.11
280	240.54670645	39.45
253	264.38501818	-11.39
314	248.25117666	65.75
456	464.28920824	-8.29
208	224.25082648	-16.25
306	294.81356667	11.19
390	374.92668340	15.07
291	287.02463691	3.98
380	331.29012333	48.71
250	266.14989178	-16.15
214	223.98048087	-9.98
424	397.72591393	26.27
323	310.89877498	12.1
238	239.15999556	-1.16
288	243.99671440	44.0
235	228.07345105	6.93
212	226.91097228	-14.91
330	315.65297212	14.35
465	459.66178188	5.34
245	235.31366444	9.69
326	306.90734933	19.09
213	226.56755747	-13.57
465	474.41660333	-9.42
447	441.68025941	5.32

Mean Square Error = 470.030026

Desired Output	Predict	Error
350	265.49329105	84.51
319	313.17777617	5.82
328	323.06722873	4.93
214	225.12170406	-11.12
460	445.07588965	14.92
486	476.86245489	9.14
245	236.51095516	8.49
382	365.83494036	16.17
322	302.59838757	19.4
300	286.35475863	13.65
209	224.73491161	-15.73
462	454.91084696	7.09
307	295.64959883	11.35
360	279.59212921	80.41
284	270.47345673	13.53

262	265.86371986	-3.86
478	472.27366153	5.73
224	175.35342730	48.65
457	438.16757164	18.83
259	265.67497019	-6.67
235	229.32632002	5.67
313	308.25980526	4.74
214	224.17232736	-10.17
276	267.85532163	8.14
441	430.84475780	10.16
315	309.41251804	5.59
468	475.84473683	-7.84
243	230.66978712	12.33
217	217.61105958	-0.61
412	367.28626905	44.71
325	321.81568216	3.18

Mean Square Error = 677.317948

Desired Output	Predict	Error
490	480.53294643	9.47
216	217.16943687	-1.17
270	242.48704342	27.51
320	317.90982060	2.09
469	461.71803599	7.28
232	227.75164023	4.25
457	448.01621553	8.98
305	295.84105510	9.16
327	310.62669249	16.37
428	386.66093352	41.34
160	171.21160434	-11.21
225	216.77162299	8.23
303	290.87114091	12.13
444	432.06726361	11.93
412	412.68743273	-0.69
155	170.90049252	-15.9
239	239.79532159	-0.8
370	307.75807353	62.24
436	422.76614348	13.23
351	336.32379775	14.68
156	170.88185951	-14.88
210	223.95429923	-13.95
413	366.06261747	46.94
397	387.66458617	9.34
294	294.82086239	-0.82
286	271.95547194	14.04
156	171.02603932	-15.03
288	283.87930794	4.12
390	375.70573540	14.29
322	322.55319288	-0.55
490	480.24055561	9.76

Mean Square Error = 371.386606

Desired Output	Predict	Error
459	465.63995879	-6.64
490	483.35286611	6.65
303	316.20851333	-13.21
455	461.88445644	-6.88

240	239.42699140	0.57
469	470.83755854	-1.84
245	251.13274925	-6.13
339	358.61382348	-19.61
470	472.73528950	-2.74
213	235.33323385	-22.33
308	326.42925278	-18.43
468	471.63447843	-3.63
445	437.47394833	7.53
294	321.70769086	-27.71
247	260.24622502	-13.25
390	387.74765549	2.25
478	483.82456083	-5.82
156	173.76740187	-17.77
274	286.47693592	-12.48
188	175.94274831	12.06
305	327.88516952	-22.89
315	334.27063311	-19.27
208	232.43331156	-24.43
308	319.09428754	-11.09
471	473.43041683	-2.43
234	237.55346159	-3.55
404	415.95721948	-11.96
156	173.48775829	-17.49
311	329.98436129	-18.98
401	417.86822951	-16.87
153	172.50652861	-19.51

Mean Square Error = 205.129103

Desired Output	Predict	Error
472	479.28877208	-7.29
435	433.31219493	1.69
246	198.32343707	47.68
410	389.54020030	20.46
233	225.92035589	7.08
344	329.93523383	14.06
319	306.95812969	12.04
405	359.63639142	45.36
294	288.03416913	5.97
438	402.81636354	35.18
422	402.83630569	19.16
337	328.44547508	8.55
489	478.09623499	10.9
153	163.93953569	-10.94
294	277.64528327	16.35
260	245.11084283	14.89
153	163.67058956	-10.67
460	463.91488628	-3.91
450	420.10153136	29.9
311	306.29772394	4.7
168	165.72924696	2.27
361	345.45765247	15.54
484	474.30598450	9.69
490	478.76713884	11.23
172	165.81906619	6.18
431	417.44823448	13.55
244	231.32436509	12.68
437	422.19208766	14.81
471	462.29069994	8.71

322		316.55380569		5.45
465		448.60245947		16.4

Mean Square Error = 326.697919

Desired Output		Predict		Error
341		332.73966569		8.26
490		479.83810309		10.16
242		226.55147679		15.45
308		303.95404939		4.05
314		298.61733875		15.38
237		182.70867067		54.29
370		352.50218529		17.5
209		222.49281945		-13.49
211		225.49915204		-14.5
481		475.18286879		5.82
296		284.10059036		11.9
471		465.66210718		5.34
410		356.41537311		53.58
470		479.95384412		-9.95
259		209.90276845		49.1
315		301.48941334		13.51
165		165.53701654		-0.54
252		265.76877704		-13.77
209		222.35946895		-13.36
232		226.00032839		6.0
302		292.50184968		9.5
290		266.30261906		23.7
240		236.40420776		3.6
368		353.40582707		14.59
327		313.40333978		13.6
340		322.78456884		17.22
290		287.80495834		2.2
440		431.08772095		8.91
288		285.22358014		2.78
360		346.47325581		13.53
249		254.18133800		-5.18

Mean Square Error = 391.665619

Desired Output		Predict		Error
207		176.63639982		30.36
433		425.66769126		7.33
381		402.57621896		-21.58
178		169.54244801		8.46
451		467.47461109		-16.47
490		482.59666917		7.4
215		232.98809949		-17.99
221		225.77944966		-4.78
230		240.11033215		-10.11
333		353.56924772		-20.57
210		238.13955917		-28.14
481		482.74212463		-1.74
215		230.14861344		-15.15
467		471.29700777		-4.3
246		256.87408806		-10.87
485		482.46314242		2.54
215		231.17790289		-16.18
230		232.97076859		-2.97

353	376.92586009	-23.93
467	471.59415842	-4.59
447	471.98195859	-24.98
345	368.55415297	-23.55
303	327.33808527	-24.34
153	167.54682163	-14.55
450	461.92143498	-11.92
475	482.89151832	-7.89
153	167.20352909	-14.2
265	286.20162170	-21.2
218	226.75934375	-8.76
300	327.51244043	-27.51
488	481.39837035	6.6

Mean Square Error = 272.82789

Desired Output	Predict	Error
433	445.97006413	-12.97
417	414.52500647	2.47
325	352.87528726	-27.88
250	252.93623448	-2.94
248	262.18437678	-14.18
231	239.55066642	-8.55
466	468.52653661	-2.53
420	410.26468037	9.74
385	408.04420875	-23.04
252	282.75071326	-30.75
427	441.69190055	-14.69
247	262.35059696	-15.35
240	240.41813515	-0.42
489	481.72788026	7.27
253	281.95746324	-28.96
288	295.96889715	-7.97
153	167.57220736	-14.57
486	480.95731363	5.04
475	478.70129699	-3.7
356	378.63086921	-22.63
310	328.05419482	-18.05
234	244.41374236	-10.41
328	265.82998861	62.17
208	235.05783023	-27.06
270	234.18541412	35.81
444	457.45058201	-13.45
488	482.04096560	5.96
340	276.93251557	63.07
317	341.00643795	-24.01
377	391.98680793	-14.99
490	482.69265299	7.31

Mean Square Error = 527.257923

Desired Output	Predict	Error
317	341.99701828	-25.0
454	454.16155513	-0.16
374	390.38579329	-16.39
297	295.34593945	1.65
427	435.93658801	-8.94
349	372.44085835	-23.44
255	258.79785215	-3.8

238	240.67500996	-2.68
290	307.24300121	-17.24
211	239.46762807	-28.47
390	369.99413685	20.01
256	283.01921229	-27.02
271	286.56391463	-15.56
291	312.47095158	-21.47
365	386.39575226	-21.4
209	236.65605639	-27.66
398	379.12890402	18.87
328	356.51053621	-28.51
154	167.45029876	-13.45
309	332.94555861	-23.95
268	285.74991766	-17.75
416	431.01106227	-15.01
231	240.77318777	-9.77
420	420.75166409	-0.75
357	381.10626429	-24.11
251	283.19339875	-32.19
236	250.10640425	-14.11
153	166.73072609	-13.73
405	412.38486357	-7.38
164	168.33386790	-4.33
292	298.74295383	-6.74

Mean Square Error = 335.329774

Desired Output	Predict	Error
241	222.73180888	18.27
331	331.93343704	-0.93
300	245.18457459	54.82
215	219.90148913	-4.9
153	167.78573112	-14.79
471	464.37655656	6.62
490	479.87545489	10.12
296	298.34131573	-2.34
335	320.91127002	14.09
328	332.62593598	-4.63
315	302.86039071	12.14
209	222.94918204	-13.95
305	293.14285127	11.86
470	463.22042197	6.78
209	224.13113953	-15.13
430	415.46002007	14.54
298	300.15409225	-2.15
333	326.51513365	6.48
464	469.25973432	-5.26
448	444.94577397	3.05
483	479.77620167	3.22
293	291.99927545	1.0
329	315.97119383	13.03
393	383.60915374	9.39
470	472.22726446	-2.23
280	267.03908775	12.96
307	301.62189447	5.38
468	470.90367090	-2.9
246	242.09574946	3.9
234	227.29912027	6.7
362	345.12296437	16.88

Mean Square Error = 188.112581

***** Mean Square Error Average : 376.5755 *****
188.112581

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.12

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
188	171.63853822	16.36
248	267.02292453	-19.02
292	303.13081875	-11.13
481	479.82039598	1.18
333	356.73100224	-23.73
385	410.03172258	-25.03
268	289.17115694	-21.17
308	334.25437011	-26.25
450	462.99695002	-13.0
471	474.16425950	-3.16
217	225.08252015	-8.08
291	313.63593590	-22.64
308	329.95346034	-21.95
436	452.63886456	-16.64
314	317.37852312	-3.38
328	268.25513655	59.74
445	440.91673591	4.08
232	234.47825273	-2.48
172	171.09675244	0.9
280	248.77822494	31.22
156	170.63340555	-14.63
490	482.14181057	7.86
236	250.62294942	-14.62
382	406.82751459	-24.83
472	481.86245532	-9.86
230	228.97902305	1.02
209	233.44315400	-24.44
270	227.51728931	42.48
288	259.54104110	28.46
322	353.24407333	-31.24
250	253.58548966	-3.59

Mean Square Error = 470.343758

Desired Output	Predict	Error
286	272.24062666	13.76
489	477.34798063	11.65
250	266.42224383	-16.42
351	334.79467982	16.21
390	341.77704465	48.22
401	388.44468384	12.56
294	279.10972345	14.89
251	265.88507018	-14.89
300	286.68022110	13.32

433	395.28120306	37.72
153	166.61643122	-13.62
256	264.73740474	-8.74
469	463.16353154	5.84
209	223.76125059	-14.76
305	294.66275657	10.34
374	353.02974216	20.97
297	284.36744083	12.63
239	240.82117285	-1.82
337	328.15794085	8.84
416	399.83712857	16.16
370	351.30094664	18.7
360	283.95418786	76.05
234	226.54934399	7.45
438	405.99941429	32.0
265	266.19086623	-1.19
488	476.70114730	11.3
209	224.91767181	-15.92
284	271.09900522	12.9
303	292.47250213	10.53
490	478.83554533	11.16
422	406.59904727	15.4

Mean Square Error = 489.709155

Desired Output	Predict	Error
230	240.93874865	-10.94
252	285.85318659	-33.85
457	457.19892397	-0.2
486	482.18378688	3.82
247	263.78059738	-16.78
259	287.00265261	-28.0
240	242.25139445	-2.25
470	481.85978058	-11.86
212	238.45960475	-26.46
309	333.99113828	-24.99
344	366.59795873	-22.6
245	250.84132841	-5.84
210	238.73036363	-28.73
238	240.46173268	-2.46
353	376.58613821	-23.59
328	355.94407510	-27.94
235	241.91957916	-6.92
207	174.89398768	32.11
405	388.13543048	16.86
246	199.41592506	46.58
294	319.70013082	-25.7
412	398.24814482	13.75
153	166.39422831	-13.39
376	398.15061079	-22.15
470	473.94073934	-3.94
214	234.39089651	-20.39
270	260.52352819	9.48
210	238.00178784	-28.0
296	324.52980319	-28.53
247	262.13467762	-15.13
356	378.24356015	-22.24

Mean Square Error = 465.307277

Desired Output	Predict	Error
216	218.53805593	-2.54
314	249.47996471	64.52
471	460.06524596	10.93
468	457.11382146	10.89
451	448.63757618	2.36
470	458.78696293	11.21
483	475.26834497	7.73
331	320.65777307	10.34
357	340.20888871	16.79
456	457.71181850	-1.71
475	467.89132604	7.11
153	161.42262261	-8.42
156	161.88327791	-5.88
444	431.19805594	12.8
253	262.62034830	-9.62
215	221.62758333	-6.63
390	370.00612147	19.99
153	161.24688686	-8.25
481	475.46150892	5.54
255	246.53160939	8.47
431	416.88536632	14.11
214	224.32804623	-10.33
370	300.00380638	70.0
240	236.80719427	3.19
231	227.49479773	3.51
237	179.11368670	57.89
215	219.68213427	-4.68
433	415.58829337	17.41
246	242.67050574	3.33
350	267.28617782	82.71
165	162.55805099	2.44

Mean Square Error = 702.55081

Desired Output	Predict	Error
486	480.83611499	5.16
412	435.73382654	-23.73
294	321.77353055	-27.77
280	291.25132676	-11.25
234	242.54368438	-8.54
315	336.10221351	-21.1
462	468.86930308	-6.87
459	467.23100771	-8.23
460	462.40955047	-2.41
178	169.09068370	8.91
326	323.21610193	2.78
288	297.61739972	-9.62
468	481.39838690	-13.4
430	442.02350746	-12.02
208	236.20935305	-28.21
274	288.17496265	-14.17
450	447.29859680	2.7
233	240.12761171	-7.13
471	473.89934317	-2.9
300	259.00575506	40.99
441	454.28451800	-13.28
380	352.73292759	27.27
345	370.71467705	-25.71

192	172.06991122	19.93
153	166.64002673	-13.64
322	350.91817715	-28.92
293	317.15405151	-24.15
478	479.21737577	-1.22
489	482.15059435	6.85
245	246.63722381	-1.64
302	315.26151696	-13.26

Mean Square Error = 296.262955

Desired Output	Predict	Error
215	220.21030760	-5.21
155	167.17347820	-12.17
230	227.46416507	2.54
245	237.94328587	7.06
465	457.29632166	7.7
360	347.90364864	12.1
470	471.56847081	-1.57
262	265.55913307	-3.56
469	460.58273095	8.42
410	391.94556923	18.05
398	348.66915128	49.33
485	479.18231842	5.82
468	470.26923773	-2.27
327	314.26131009	12.74
339	326.07127011	12.93
305	293.51536457	11.48
246	243.55145293	2.45
319	308.44418332	10.56
253	264.07931867	-11.08
311	301.59743640	9.4
153	166.35668903	-13.36
490	479.75726011	10.24
365	352.08929920	12.91
307	296.74842091	10.25
327	309.85169767	17.15
244	232.03629274	11.96
298	300.05215303	-2.05
377	355.73761562	21.26
490	479.85091408	10.15
362	340.96632670	21.03
242	226.84211987	15.16

Mean Square Error = 204.355684

Desired Output	Predict	Error
340	277.78868689	62.21
393	418.65191945	-25.65
214	235.59920378	-21.6
231	241.71945515	-10.72
168	166.43900103	1.56
307	329.30935009	-22.31
215	232.83593000	-17.84
288	306.21052760	-18.21
328	358.92777111	-30.93
490	481.74281119	8.26
308	318.38908515	-10.39
325	354.85408113	-29.85

221	226.31667270	-5.32
154	164.97464494	-10.97
325	355.20871943	-30.21
208	233.07212141	-25.07
247	263.03502310	-16.04
420	412.02454835	7.98
455	464.41972290	-9.42
213	236.75901490	-23.76
333	360.98110812	-27.98
224	181.44167941	42.56
164	165.76505174	-1.77
259	221.42802561	37.57
329	352.29197130	-23.29
311	337.30556084	-26.31
235	240.29015971	-5.29
213	236.14564586	-23.15
322	329.62270507	-7.62
320	346.38028649	-26.38
296	308.52674078	-12.53

Mean Square Error = 569.864777

Desired Output	Predict	Error
249	253.81027081	-4.81
444	433.93291519	10.07
490	477.06684588	12.93
290	264.29223640	25.71
160	165.59518726	-5.6
427	402.78402583	24.22
381	363.78687926	17.21
300	299.19684493	0.8
404	382.09461218	21.91
484	473.61419255	10.39
328	325.66795990	2.33
396	376.44909147	19.55
241	226.45604288	14.54
310	298.57076281	11.43
488	476.62352925	11.38
424	392.91961304	31.08
315	308.29111985	6.71
340	318.66137239	21.34
156	165.39001253	-9.39
236	229.62975301	6.37
225	217.79308027	7.21
465	471.20772513	-6.21
390	356.33895469	33.66
405	373.21317462	31.79
417	373.61228796	43.39
440	428.86953272	11.13
303	288.43577557	14.56
454	431.54516875	22.45
466	455.15054034	10.85
317	309.44811287	7.55
471	462.55734991	8.44

Mean Square Error = 326.210377

Desired Output	Predict	Error
238	245.37255995	-7.37

490	476.35616726	13.64
209	226.06601368	-17.07
276	268.48066030	7.52
349	335.19523565	13.8
330	311.21268760	18.79
313	306.58385592	6.42
413	364.41995583	48.58
478	477.78913964	0.21
427	411.82583672	15.17
294	287.36540276	6.63
271	267.03110779	3.97
156	165.41992759	-9.42
341	329.45980878	11.54
260	247.28658063	12.71
437	424.95314938	12.05
335	318.49992420	16.5
209	225.97864035	-16.98
448	441.46378887	6.54
397	392.84837593	4.15
447	465.50106116	-18.5
467	459.03964715	7.96
460	464.87885052	-4.88
306	292.45641608	13.54
153	164.68822933	-11.69
465	452.77594827	12.22
467	459.35390769	7.65
234	235.02746659	-1.03
428	387.48105199	40.52
323	307.48879234	15.51
240	232.28379945	7.72

Mean Square Error = 253.95171

Desired Output	Predict	Error
470	473.10750673	-3.11
288	311.02608005	-23.03
153	170.71677628	-17.72
252	286.88795287	-34.89
315	336.70318840	-21.7
303	331.47276583	-28.47
218	227.26266869	-9.26
464	476.90309940	-12.9
305	331.53314946	-26.53
457	465.07411938	-8.07
410	393.61307777	16.39
333	353.67604455	-20.68
290	311.51553983	-21.52
319	348.36837110	-29.37
317	345.67463550	-28.67
153	170.43650545	-17.44
470	472.41685573	-2.42
447	458.01160063	-11.01
361	382.42575567	-21.43
368	390.31617171	-22.32
490	483.55323116	6.45
420	418.80459395	1.2
232	241.97584115	-9.98
211	240.04210676	-29.04
390	410.55325953	-20.55
290	313.47420884	-23.47

291		316.78779066		-25.79
209		236.77535543		-27.78
232		239.11574689		-7.12
475		483.61371025		-8.61
315		329.49538757		-14.5

Mean Square Error = 397.986542

***** Mean Square Error Average : 417.6543 *****

204.355684

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.13

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
243		227.39323182		15.61
303		292.31675409		10.68
424		396.46982427		27.53
236		233.66886232		2.33
291		287.40319392		3.6
213		225.25795918		-12.26
235		226.10987619		8.89
333		330.61787290		2.38
422		406.09246889		15.91
475		474.49595318		0.5
351		335.88016101		15.12
488		480.29069735		7.71
308		305.20540735		2.79
483		481.11609668		1.88
328		326.06097379		1.94
238		238.12870190		-0.13
274		265.64320342		8.36
445		415.29374464		29.71
427		413.18627323		13.81
153		168.67897500		-15.68
154		169.04906646		-15.05
232		227.62088700		4.38
231		226.65050725		4.35
250		241.08063803		8.92
209		223.69828641		-14.7
239		239.25939699		-0.26
393		382.61398881		10.39
216		217.39363863		-1.39
416		399.38827901		16.61
290		265.51495712		24.49
153		168.47039618		-15.47

Mean Square Error = 164.513126

Desired Output		Predict		Error
478		480.72728301		-2.73
214		237.47289345		-23.47
234		250.94488713		-16.94

309	337.34844635	-28.35
454	455.05699463	-1.06
410	431.41030343	-21.41
164	165.66311702	-1.66
209	238.61902497	-29.62
470	472.98407847	-2.98
297	292.25523507	4.74
214	238.23016346	-24.23
224	177.07533822	46.92
218	230.09048152	-12.09
320	347.42720449	-27.43
451	469.10669013	-18.11
467	470.44940194	-3.45
447	461.60820432	-14.61
313	342.53373463	-29.53
396	421.38954932	-25.39
271	290.00448239	-19.0
467	471.40635578	-4.41
308	330.05615684	-22.06
209	239.58409767	-30.58
420	412.14653533	7.85
247	266.46840721	-19.47
488	479.35245340	8.65
481	478.25922573	2.74
470	480.36797464	-10.37
314	313.18331650	0.82
213	239.87155287	-26.87
490	480.38625274	9.61

Mean Square Error = 387.900371

Desired Output	Predict	Error
252	283.21070583	-31.21
344	365.91960178	-21.92
303	315.95859415	-12.96
431	446.71522289	-15.72
470	479.03570589	-9.04
370	325.72447004	44.28
486	482.97404470	3.03
459	467.66952822	-8.67
331	356.97791554	-25.98
153	168.79197373	-15.79
244	244.94589932	-0.95
490	483.59377576	6.41
412	430.71059522	-18.71
437	449.94481509	-12.94
438	430.75581634	7.24
292	297.70623180	-5.71
435	452.86298066	-17.86
215	232.58309730	-17.58
310	327.31030390	-17.31
156	170.10855953	-14.11
217	228.27190221	-11.27
469	473.52801755	-4.53
489	482.71499855	6.29
472	483.15174179	-11.15
250	283.93172217	-33.93
322	349.30216002	-27.3
390	411.03545915	-21.04
382	403.05286725	-21.05

288		256.67356277		31.33
294		321.39055831		-27.39
490		483.09142096		6.91

Mean Square Error = 373.072823

Desired Output		Predict		Error
232		223.93815800		8.06
317		313.60752412		3.39
490		479.85279783		10.15
255		243.54696554		11.45
455		445.10785580		9.89
368		353.80982174		14.19
235		225.15788194		9.84
328		250.54942302		77.45
469		460.08648491		8.91
260		244.18332681		15.82
208		219.50738470		-11.51
214		221.67716658		-7.68
471		464.03611298		6.96
288		274.34080766		13.66
233		224.09088086		8.91
468		479.00941893		-11.01
230		224.78179155		5.22
230		225.03040640		4.97
288		285.35096884		2.65
325		322.17209726		2.83
290		285.52814002		4.47
290		287.72529281		2.27
212		223.27516008		-11.28
339		325.40810431		13.59
322		306.10146656		15.9
319		308.93766253		10.06
325		327.23718537		-2.24
259		265.64611349		-6.65
447		463.29215753		-16.29
246		192.13707061		53.86
433		395.09280676		37.91

Mean Square Error = 421.695868

Desired Output		Predict		Error
256		284.72162267		-28.72
248		264.48306507		-16.48
156		168.34935517		-12.35
460		475.82999189		-15.83
405		413.31646767		-8.32
436		451.59850632		-15.6
291		314.37000065		-23.37
470		473.23599899		-3.24
156		168.40898796		-12.41
326		325.69630485		0.3
303		329.13638511		-26.14
475		483.05581761		-8.06
356		380.00690334		-24.01
247		262.40657770		-15.41
328		355.98466895		-27.98
294		313.87959367		-19.88
300		313.49140636		-13.49

249	272.68493445	-23.68
441	454.69694419	-13.7
315	342.30236187	-27.3
270	260.30222822	9.7
208	236.76887074	-28.77
209	237.89105590	-28.89
153	167.63977245	-14.64
333	350.39834205	-17.4
340	343.81654853	-3.82
211	240.87897752	-29.88
245	250.60789006	-5.61
245	254.14943331	-9.15
457	466.47335015	-9.47
240	243.52547472	-3.53

Mean Square Error = 333.456506

Desired Output	Predict	Error
209	222.32936533	-13.33
221	213.40351884	7.6
335	320.60595034	14.39
314	248.10680883	65.89
302	290.90564156	11.09
380	326.15414302	53.85
444	435.47745255	8.52
456	462.73056097	-6.73
237	181.11487114	55.89
489	478.35662929	10.64
247	247.27626353	-0.28
370	351.00640224	18.99
444	436.12157592	7.88
168	165.36533657	2.63
293	291.51659473	1.48
240	228.25325259	11.75
280	243.95368650	36.05
232	225.71718958	6.28
305	300.19194643	4.81
465	472.02777044	-7.03
323	309.43767696	13.56
490	478.71090359	11.29
390	373.18410426	16.82
160	164.77656682	-4.78
246	243.79400493	2.21
462	455.88651142	6.11
486	476.11365331	9.89
337	328.67113358	8.33
376	360.27161677	15.73
215	217.50477593	-2.5
327	308.06670405	18.93

Mean Square Error = 470.377832

Desired Output	Predict	Error
294	278.04175918	15.96
405	362.38272630	42.62
471	461.73254448	9.27
231	225.36574148	5.63
390	343.06235687	46.94
305	293.10101449	11.9

490	479.64160621	10.36
362	341.16439569	20.84
485	479.07913599	5.92
420	382.59225738	37.41
276	266.99908072	9.0
306	292.85422223	13.15
448	437.75839955	10.24
319	313.53057840	5.47
280	268.60014145	11.4
333	324.79419757	8.21
296	282.31629233	13.68
481	479.79370143	1.21
464	466.47691262	-2.48
253	262.45616493	-9.46
360	283.22498443	76.78
433	414.48016746	18.52
329	315.95035527	13.05
430	409.10035921	20.9
284	269.84361400	14.16
307	296.41404060	10.59
345	333.71710335	11.28
153	166.56598684	-13.57
427	401.67979594	25.32
410	356.33943034	53.66
353	340.34053527	12.66

Mean Square Error = 597.754019

Desired Output	Predict	Error
460	442.18555616	17.81
484	471.87218024	12.13
172	163.40732227	8.59
307	298.70374454	8.3
245	234.78841232	10.21
252	265.77010127	-13.77
215	219.43771476	-4.44
270	225.83087350	44.17
478	469.95242612	8.05
262	266.09172858	-4.09
350	268.36747502	81.63
234	225.44344085	8.56
265	265.95351442	-0.95
296	295.57973554	0.42
288	282.31006803	5.69
225	214.95695516	10.04
215	217.50123246	-2.5
327	310.06390375	16.94
300	246.44597321	53.55
209	222.19249095	-13.19
286	271.57932160	14.42
361	342.51041011	18.49
268	266.36503223	1.63
450	419.71204996	30.29
428	380.43394881	47.57
207	168.32525417	38.67
246	241.63095808	4.37
308	292.69305433	15.31
156	162.76849405	-6.77
357	342.17273641	14.83
311	304.32938250	6.67

Mean Square Error = 611.317919

Desired Output	Predict	Error
465	448.56780409	16.43
450	440.57767775	9.42
300	297.38698606	2.61
311	297.19317358	13.81
490	474.88102560	15.12
468	457.95527990	10.04
471	460.67667608	10.32
188	163.84700961	24.15
385	368.43169005	16.57
178	163.13465448	14.87
471	460.70302270	10.3
317	306.97319358	10.03
165	162.49868234	2.5
330	310.82502866	19.17
210	227.95593718	-17.96
470	460.18097788	9.82
440	428.74976255	11.25
238	229.24981209	8.75
457	436.28360371	20.72
241	226.89250866	14.11
349	332.76457815	16.24
155	161.80043501	-6.8
322	316.34540014	5.65
470	459.28941537	10.71
315	301.94511242	13.05
153	161.19700105	-8.2
240	238.13298535	1.87
490	475.01299434	14.99
242	228.68248816	13.32
417	373.26892626	43.73
153	161.13414389	-8.13

Mean Square Error = 225.166669

Desired Output	Predict	Error
251	284.08703689	-33.09
397	417.73017969	-20.73
466	468.49877651	-2.5
192	175.10886216	16.89
340	278.09919580	61.9
236	240.53109073	-4.53
234	240.90477891	-6.9
315	332.55242459	-17.55
315	324.44122599	-9.44
253	283.49327153	-30.49
390	383.96519756	6.03
298	325.56053596	-27.56
468	478.12368144	-10.12
153	170.90886930	-17.91
398	375.76846960	22.23
305	320.89541354	-15.9
377	387.11539160	-10.12
294	319.07786428	-25.08
328	356.10796610	-28.11
210	236.51454851	-26.51

360	380.18849369	-20.19
412	397.86690387	14.13
413	400.38220156	12.62
374	386.67674211	-12.68
341	363.46150025	-22.46
401	416.10510140	-15.11
259	213.74567905	45.25
230	230.89635762	-0.9
381	398.75476579	-17.75
208	235.01758331	-27.02
153	170.83723916	-17.84

Mean Square Error = 525.968955

***** Mean Square Error Average : 411.1224 *****
164.513126

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.14

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
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420	377.64940251	42.35
233	228.01565165	4.98
234	233.48271354	0.52
470	463.93454377	6.07
284	271.63996717	12.36
210	226.46773596	-16.47
412	405.46903379	6.53
314	295.36981326	18.63
246	242.45539632	3.54
333	320.38323994	12.62
335	323.11880783	11.88
490	480.65002808	9.35
259	208.21258301	50.79
209	225.01552417	-16.02
317	313.02819613	3.97
291	289.36073926	1.64
385	373.42339707	11.58
380	323.97557841	56.02
296	284.55439732	11.45
215	222.91147847	-7.91
362	336.16442270	25.84
471	464.96380422	6.04
398	346.86526266	51.13
370	301.20901941	68.79
490	480.52594679	9.47
244	234.16228300	9.84
353	342.49641826	10.5
325	321.68491192	3.32
481	480.87822856	0.12
472	481.08980126	-9.09
469	461.26256603	7.74

Mean Square Error = 577.132871

Desired Output	Predict	Error
293	319.64090841	-26.64
307	331.70547941	-24.71
328	360.36227914	-32.36
390	386.22120621	3.78
230	242.71362099	-12.71
291	312.91294171	-21.91
192	173.31198417	18.69
401	423.36629916	-22.37
459	467.48311669	-8.48
322	352.44029820	-30.44
234	244.99015594	-10.99
236	251.93490207	-15.93
345	372.90850396	-27.91
274	291.01807654	-17.02
153	167.79174244	-14.79
300	316.15585863	-16.16
209	236.91184766	-27.91
441	454.57114355	-13.57
235	243.94641956	-8.95
445	442.27775138	2.72
294	321.83351918	-27.83
436	451.24888609	-15.25
213	238.42297193	-25.42
322	330.65428392	-8.65
337	366.40375796	-29.4
153	167.57155775	-14.57
475	483.67436386	-8.67
300	330.39206163	-30.39
155	168.45596643	-13.46
344	370.76957408	-26.77
153	167.64017917	-14.64

Mean Square Error = 411.639623

Desired Output	Predict	Error
242	242.37468246	-0.37
298	327.19858332	-29.2
214	234.15845977	-20.16
368	393.69027437	-25.69
168	168.53948125	-0.54
422	438.09113822	-16.09
478	478.98731200	-0.99
243	245.12741414	-2.13
327	334.83003690	-7.83
381	405.16561119	-24.17
448	462.35008933	-14.35
467	471.69479149	-4.69
221	225.34864107	-4.35
430	443.57732128	-13.58
466	469.94680496	-3.95
462	469.42180490	-7.42
271	289.68786638	-18.69
435	458.87852333	-23.88
253	285.84050441	-32.84
447	460.46247411	-13.46
365	388.79680657	-23.8
315	335.48504101	-20.49

240	242.32530432	-2.33
457	460.13948387	-3.14
489	481.76838281	7.23
490	482.09074880	7.91
471	474.03020724	-3.03
433	447.67478228	-14.67
280	293.40186000	-13.4
471	474.52891000	-3.53
489	481.16269199	7.84

Mean Square Error = 229.186552

Desired Output	Predict	Error
488	474.07353793	13.93
292	274.67794533	17.32
237	180.35795715	56.64
447	463.71758034	-16.72
238	241.57093164	-3.57
265	265.43047990	-0.43
327	309.44419392	17.56
153	161.50276502	-8.5
315	307.48156941	7.52
427	411.81565880	15.18
486	475.88171814	10.12
215	219.68531592	-4.69
490	476.22940562	13.77
451	450.92310862	0.08
217	217.50097837	-0.5
323	306.73167805	16.27
360	281.66829527	78.33
456	460.23723951	-4.24
231	228.20955287	2.79
311	298.34892398	12.65
328	326.15315930	1.85
357	343.52346066	13.48
290	282.59750806	7.4
178	163.09881652	14.9
444	435.14299364	8.86
303	298.01427622	4.99
255	246.35637608	8.64
390	375.12422793	14.88
305	292.45436748	12.55
393	380.59414549	12.41
305	291.31368311	13.69

Mean Square Error = 416.866148

Desired Output	Predict	Error
303	289.73886896	13.26
333	322.41061374	10.59
294	289.44440488	4.56
490	478.70419738	11.3
326	304.12133895	21.88
457	448.93395758	8.07
454	430.82937942	23.17
444	433.38406104	10.62
165	168.26288637	-3.26
450	422.09258803	27.91
218	212.47865610	5.52

234	224.58164348	9.42
374	351.83187535	22.17
390	372.44452367	17.56
154	167.75072136	-13.75
438	403.55476880	34.45
440	429.39026831	10.61
361	344.58292887	16.42
356	340.73733185	15.26
230	226.12860712	3.87
468	469.17405609	-1.17
153	167.49291770	-14.49
470	462.18091355	7.82
465	451.48697775	13.51
209	220.36223671	-11.36
376	360.03817836	15.96
239	243.27177201	-4.27
390	338.43040071	51.57
303	291.21736010	11.78
215	216.44093708	-1.44
156	167.82150904	-11.82

Mean Square Error = 294.888381

Desired Output	Predict	Error
270	262.54772040	7.45
309	334.78344099	-25.78
188	170.78762404	17.21
156	169.25314751	-13.25
397	426.43244731	-29.43
252	286.96315038	-34.96
153	168.74861212	-15.75
249	274.31384246	-25.31
320	345.31240279	-25.31
469	473.69902368	-4.7
410	428.15187090	-18.15
247	265.01179957	-18.01
360	386.37236800	-26.37
250	259.14879413	-9.15
209	238.72343356	-29.72
245	255.29986243	-10.3
268	288.02841650	-20.03
208	238.84627429	-30.85
460	463.18209699	-3.18
465	475.88366236	-10.88
288	298.15125174	-10.15
259	287.62291638	-28.62
286	295.66173839	-9.66
211	241.07435909	-30.07
276	290.51130411	-14.51
470	478.46145648	-8.46
340	281.95940250	58.04
328	356.26980018	-28.27
238	242.06095229	-4.06
410	397.90813260	12.09
288	309.22177548	-21.22

Mean Square Error = 507.023323

Desired Output	Predict	Error
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349	374.23987747	-25.24
160	164.60021248	-4.6
319	345.71767892	-26.72
288	305.65595318	-17.66
433	428.55301742	4.45
230	233.10595892	-3.11
465	470.27801960	-5.28
307	323.32540256	-16.33
470	472.96904998	-2.97
382	406.55775353	-24.56
475	477.69065941	-2.69
211	239.51626240	-28.52
231	242.16284772	-11.16
306	321.13552601	-15.14
153	163.53366688	-10.53
156	164.39748285	-8.4
313	338.97089336	-25.97
164	164.79453011	-0.79
329	350.58638887	-21.59
468	472.26524997	-4.27
172	165.35511760	6.64
224	176.61809260	47.38
235	240.08636367	-5.09
208	236.40084634	-28.4
420	423.41148493	-3.41
331	357.27680858	-26.28
328	266.05431531	61.95
252	283.51839189	-31.52
404	422.86124185	-18.86
468	479.79528841	-11.8
294	320.56420048	-26.56

Mean Square Error = 483.571655

Desired Output	Predict	Error
215	231.22434497	-16.22
300	261.03738330	38.96
412	399.83040693	12.17
467	470.43537601	-3.44
246	197.20796716	48.79
209	234.61679391	-25.62
214	234.24257098	-20.24
260	260.69484465	-0.69
486	480.61236647	5.39
431	448.13623084	-17.14
490	481.70082517	8.3
209	234.74955345	-25.75
290	278.72580898	11.27
484	480.12955370	3.87
207	172.62162257	34.38
305	326.92819635	-21.93
241	238.61742914	2.38
296	323.38313339	-27.38
314	264.06606406	49.93
216	227.89435361	-11.89
339	360.92863839	-21.93
225	227.20972460	-2.21
315	323.64159365	-8.64
240	242.24453138	-2.24
317	339.62139204	-22.62

427	437.70684758	-10.71
405	411.07901085	-6.08
464	476.38226310	-12.38
428	414.77824008	13.22
470	473.61081146	-3.61
370	389.10847696	-19.11

Mean Square Error = 437.817803

Desired Output	Predict	Error
396	377.80881157	18.19
240	235.70166004	4.3
351	334.07725350	16.92
247	249.02307581	-2.02
232	224.56334470	7.44
247	247.42985968	-0.43
340	318.63126479	21.37
471	464.41393456	6.59
377	353.32443715	23.68
248	249.79441127	-1.79
308	303.62248463	4.38
405	358.96870544	46.03
153	165.56934936	-12.57
214	223.38794127	-9.39
270	221.54939907	48.45
424	394.82155691	29.18
250	267.22901365	-17.23
212	224.97994111	-12.98
481	474.28136785	6.72
322	319.28117840	2.72
236	228.50839414	7.49
485	478.23052415	6.77
280	239.08833804	40.91
490	478.48653674	11.51
478	479.23847693	-1.24
246	245.36021614	0.64
315	304.04732116	10.95
350	266.76519393	83.23
302	291.48927490	10.51
460	466.20296098	-6.2
310	300.26885333	9.73

Mean Square Error = 550.352484

Desired Output	Predict	Error
311	337.88066724	-26.88
232	244.26623021	-12.27
297	301.50206156	-4.5
413	408.34625666	4.65
253	284.85788940	-31.86
333	361.21411130	-28.21
213	238.88275583	-25.88
208	235.79461463	-27.79
450	462.88638215	-12.89
488	482.04970649	5.95
437	452.10621209	-15.11
319	340.91555078	-21.92
308	328.23469042	-20.23
455	465.13545712	-10.14

232	241.62174143	-9.62
256	285.02942141	-29.03
245	250.76871527	-5.77
210	240.48640043	-30.49
153	166.82251503	-13.82
262	287.26662894	-25.27
483	482.41498172	0.59
294	304.41105292	-10.41
325	355.78875824	-30.79
288	261.13064800	26.87
290	311.44286933	-21.44
470	481.75101971	-11.75
417	416.67251488	0.33
416	433.90580422	-17.91
330	342.08642521	-12.09
490	482.47576425	7.52
156	167.94881774	-11.95

Mean Square Error = 366.482661

***** Mean Square Error Average : 427.4962 *****
229.186552

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.15

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
471	464.57849924	6.42
431	419.65142090	11.35
481	473.66910643	7.33
153	168.98228388	-15.98
444	434.91623976	9.08
235	224.48158778	10.52
294	290.01771270	3.98
215	215.93988902	-0.94
153	169.02948064	-16.03
192	171.21363036	20.79
420	376.73344182	43.27
329	313.79823151	15.2
448	442.82900639	5.17
360	283.94671380	76.05
410	353.83042693	56.17
270	245.49498355	24.51
467	459.10716991	7.89
215	214.82903962	0.17
397	385.96842408	11.03
265	267.86073026	-2.86
356	337.05612339	18.94
322	318.25015319	3.75
153	169.01706781	-16.02
252	267.88108803	-15.88
436	425.44440632	10.56
412	409.73282568	2.27
410	389.15135106	20.85

240	227.44204752	12.56
245	234.00970858	10.99
235	226.43501063	8.56
218	211.21398298	6.79

Mean Square Error = 486.150003

Desired Output	Predict	Error
307	297.21933839	9.78
245	236.09578190	8.9
214	219.90900956	-5.91
241	223.81278968	17.19
231	226.65676996	4.34
297	283.60065387	13.4
153	163.76585375	-10.77
441	429.69564498	11.3
317	310.82143503	6.18
405	371.03819088	33.96
237	175.69016094	61.31
252	268.31221164	-16.31
247	248.18028922	-1.18
291	288.08979409	2.91
209	221.35169043	-12.35
234	225.17941228	8.82
327	308.17298838	18.83
470	462.74661749	7.25
471	463.33194321	7.67
447	461.07179231	-14.07
243	228.86427740	14.14
209	221.35169043	-12.35
234	227.97485676	6.03
153	163.64003209	-10.64
294	280.86975329	13.13
246	184.33046018	61.67
365	346.42664237	18.57
486	476.68823066	9.31
259	268.55400948	-9.55
467	458.59623866	8.4
376	356.43002892	19.57

Mean Square Error = 403.927571

Desired Output	Predict	Error
486	480.48858234	5.51
212	240.03927965	-28.04
404	424.46039388	-20.46
245	256.73244032	-11.73
246	259.64890869	-13.65
211	241.03489258	-30.03
230	244.73578706	-14.74
340	343.26400594	-3.26
247	266.76936504	-19.77
244	250.18387387	-6.18
164	165.35940515	-1.36
208	235.93813606	-27.94
225	232.10680640	-7.11
236	252.83174675	-16.83
475	478.44561924	-3.45
232	242.96707036	-10.97

233	243.64063773	-10.64
298	327.13678212	-29.14
250	258.63789086	-8.64
290	311.34522113	-21.35
469	472.30208653	-3.3
428	417.66532992	10.33
156	164.91027195	-8.91
231	243.99932158	-13.0
444	458.72674796	-14.73
424	432.75778294	-8.76
490	481.98115645	8.02
294	322.15121862	-28.15
350	287.69805897	62.3
253	285.74458392	-32.74
168	165.92315004	2.08

Mean Square Error = 397.844948

Desired Output	Predict	Error
437	452.46617995	-15.47
209	238.50544182	-29.51
470	472.88140854	-2.88
314	266.51040065	47.49
445	441.74779108	3.25
460	462.34429154	-2.34
208	235.12419615	-27.12
337	365.62991343	-28.63
370	327.30030055	42.7
276	290.99975541	-15.0
155	166.43782567	-11.44
433	448.57455939	-15.57
271	288.88896927	-17.89
209	237.45083233	-28.45
309	334.84609615	-25.85
288	308.13530866	-20.14
315	336.04062544	-21.04
427	444.70184003	-17.7
256	285.21761931	-29.22
315	324.22183044	-9.22
490	481.30933704	8.69
319	347.36577488	-28.37
490	480.79977997	9.2
478	481.15628034	-3.16
488	480.70062533	7.3
284	294.55643307	-10.56
153	165.50505265	-12.51
490	481.26147553	8.74
280	292.87870100	-12.88
465	465.81407676	-0.81
274	289.88908442	-15.89

Mean Square Error = 421.173258

Desired Output	Predict	Error
242	242.15243675	-0.15
323	344.05127008	-21.05
215	234.28046953	-19.28
450	445.92838787	4.07
353	378.88914828	-25.89

344	369.51854141	-25.52
471	473.75060618	-2.75
440	455.42083880	-15.42
490	483.20977720	6.79
313	340.35144201	-27.35
255	260.29127336	-5.29
209	236.69397703	-27.69
450	462.40333008	-12.4
156	168.52457482	-12.52
390	367.24830031	22.75
483	483.15349470	-0.15
470	473.62622409	-3.63
422	437.76380807	-15.76
286	295.34042330	-9.34
490	483.22626461	6.77
327	347.91047055	-20.91
234	246.93935562	-12.94
322	329.18291415	-7.18
393	417.74059949	-24.74
472	482.93315681	-10.93
481	483.17848395	-2.18
232	241.70474911	-9.7
216	230.69107194	-14.69
326	324.51735917	1.48
288	259.44589584	28.55
221	227.60842554	-6.61

Mean Square Error = 250.750161

Desired Output	Predict	Error
390	373.66039669	16.34
209	223.66480087	-14.66
238	227.57355079	10.43
484	475.73713249	8.26
250	266.53268672	-16.53
416	397.93447862	18.07
260	247.02533604	12.97
465	473.81480422	-8.81
335	321.41607338	13.58
412	373.45693148	38.54
153	164.06153398	-11.06
306	294.09357894	11.91
305	300.90497553	4.1
302	292.54046795	9.46
207	171.94218631	35.06
253	264.86114695	-11.86
489	479.55007241	9.45
230	221.85006191	8.15
325	325.38819125	-0.39
361	346.52212712	14.48
240	229.31673164	10.68
339	324.59079381	14.41
214	223.07670491	-9.08
314	300.65496335	13.35
325	320.94009799	4.06
351	335.98303386	15.02
238	241.81966654	-3.82
248	246.14259102	1.86
292	275.86978556	16.13
230	226.96362260	3.04

381

| 366.85105596 | 14.15

Mean Square Error = 212.655319

Desired Output	Predict	Error
349	336.46749044	12.53
154	168.25941590	-14.26
315	310.52904318	4.47
470	463.42380968	6.58
340	261.63765888	78.36
469	463.52517909	5.47
160	168.61485413	-8.61
459	453.69284335	5.31
328	328.79845971	-0.8
165	168.90021766	-3.9
417	375.81874361	41.18
300	287.16647347	12.83
290	285.66324717	4.34
156	168.42327829	-12.42
296	283.44026166	12.56
259	203.44405678	55.56
468	477.56336918	-9.56
217	213.10250352	3.9
377	353.72533954	23.27
300	301.71814485	-1.72
308	298.31663270	9.68
471	465.26784109	5.73
360	345.15252952	14.85
438	406.69083888	31.31
305	293.53943733	11.46
370	351.27860467	18.72
489	478.17269882	10.83
470	479.30361016	-9.3
390	375.81552459	14.18
374	351.42609623	22.57
232	226.20256811	5.8

Mean Square Error = 496.718387

Desired Output	Predict	Error
296	293.58581428	2.41
470	467.03722716	2.96
464	464.23543675	-0.24
210	227.70510823	-17.71
305	290.79901267	14.2
413	362.05935332	50.94
490	474.86191727	15.14
451	449.20209415	1.8
462	451.63028930	10.37
213	226.85047548	-13.85
236	231.17964634	4.82
330	307.88201644	22.12
310	295.70298520	14.3
457	446.45783155	10.54
488	472.49447117	15.51
457	433.71629576	23.28
156	162.60048799	-6.6
345	328.58165667	16.42
315	299.77596924	15.22

447	435.89570611	11.1
300	247.93198416	52.07
485	474.13908535	10.86
214	225.47743542	-11.48
262	266.47492931	-4.47
311	302.52922811	8.47
368	348.73317656	19.27
405	348.47197401	56.53
390	346.75717029	43.24
308	290.83051643	17.17
398	336.24002586	61.76
213	226.12136921	-13.12

Mean Square Error = 603.416926

Desired Output	Predict	Error
454	451.04214312	2.96
311	331.24425997	-20.24
208	236.48303359	-28.48
456	474.19631035	-18.2
420	420.43622785	-0.44
268	288.64650131	-20.65
246	261.72824466	-15.73
239	256.79229227	-17.79
224	179.14307367	44.86
317	339.76292368	-22.76
465	470.96969750	-5.97
401	418.57712382	-17.58
380	350.27993756	29.72
249	274.23081125	-25.23
320	344.35227875	-24.35
290	280.61208336	9.39
153	168.11262096	-15.11
178	169.81148548	8.19
478	480.41336864	-2.41
385	406.49625131	-21.5
319	339.22886238	-20.23
270	237.93046625	32.07
331	354.61016770	-23.61
247	264.43173711	-17.43
210	237.83865307	-27.84
435	449.84129836	-14.84
211	239.25039489	-28.25
288	308.33326411	-20.33
303	308.98712175	-5.99
280	257.99289568	22.01
188	170.41514403	17.58

Mean Square Error = 442.768497

Desired Output	Predict	Error
303	300.77928032	2.22
490	477.40392499	12.6
328	251.77616705	76.22
322	316.87211314	5.13
172	166.54527943	5.45
362	339.49093239	22.51
303	290.35483984	12.65
288	275.26597856	12.73

307	301.32800710	5.67
427	401.50155968	25.5
357	343.96720874	13.03
328	326.86004282	1.14
293	291.89525718	1.1
341	331.04459253	9.96
333	324.85953385	8.14
333	325.86570751	7.13
333	321.55565832	11.44
455	444.58186742	10.42
460	464.00607590	-4.01
294	293.90738183	0.09
328	323.49726647	4.5
433	393.88452438	39.12
251	265.79039272	-14.79
430	409.18145212	20.82
468	459.64188676	8.36
240	236.40352094	3.6
475	479.09523353	-4.1
215	217.54575744	-2.55
308	303.23497579	4.77
396	376.07250355	19.93
468	468.07695437	-0.08

Mean Square Error = 352.047245

***** Mean Square Error Average : 406.7452 *****
212.655319

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.16

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
470	461.72938471	8.27
337	327.84317777	9.16
470	478.16329657	-8.16
457	437.91521955	19.08
290	265.07528834	24.92
271	265.73861594	5.26
471	463.52492699	7.48
360	281.55677795	78.44
209	222.28614696	-13.29
234	230.57860171	3.42
288	283.22881775	4.77
165	164.15206677	0.85
475	479.15271969	-4.15
246	192.72540544	53.27
427	412.11749092	14.88
489	478.02457408	10.98
238	240.24905763	-2.25
412	403.96331442	8.04
253	262.94610612	-9.95
431	419.70468473	11.3
485	478.22480994	6.78

276	267.21102181	8.79
317	310.83939489	6.16
153	162.86590242	-9.87
303	288.75515693	14.24
398	346.34135516	51.66
385	371.47543838	13.52
300	299.55777757	0.44
340	261.63877128	78.36
444	434.85201882	9.15
294	288.12397914	5.88

Mean Square Error = 668.295803

Desired Output	Predict	Error
353	386.70157257	-33.7
468	474.89887790	-6.9
238	243.34685354	-5.35
156	164.01561374	-8.02
246	263.71539809	-17.72
328	362.66317644	-34.66
481	478.70827400	2.29
300	263.66883060	36.33
230	245.88598460	-15.89
341	374.09718936	-33.1
470	475.40453313	-5.4
327	331.13797771	-4.14
490	478.51196345	11.49
215	233.79757081	-18.8
247	267.10343102	-20.1
329	357.40932458	-28.41
390	371.17108821	18.83
475	475.84068730	-0.84
440	459.25307161	-19.25
469	471.96749248	-2.97
215	236.43813573	-21.44
293	315.55213558	-22.55
427	445.74483960	-18.74
153	162.91558509	-9.92
240	247.30305646	-7.3
265	287.30856953	-22.31
405	396.53646358	8.46
314	310.60323149	3.4
435	457.90545016	-22.91
288	305.53054110	-17.53
481	476.66909579	4.33

Mean Square Error = 349.844303

Desired Output	Predict	Error
234	241.15595502	-7.16
307	332.85658055	-25.86
397	423.11167195	-26.11
330	344.00086294	-14.0
490	482.34042553	7.66
270	236.32279371	33.68
210	237.61936563	-27.62
306	325.90991668	-19.91
486	480.74015826	5.26
239	257.82458579	-18.82

241	240.11227901	0.89
315	328.20331049	-13.2
153	168.15528733	-15.16
368	395.07598887	-27.08
309	337.69088517	-28.69
344	370.98206819	-26.98
483	482.16412156	0.84
252	287.83655777	-35.84
490	482.16804044	7.83
232	243.40912853	-11.41
455	464.73280705	-9.73
208	234.23789522	-26.24
245	255.62589824	-10.63
252	287.63723496	-35.64
268	290.08570647	-22.09
328	269.42725619	58.57
247	264.93406476	-17.93
307	327.73636916	-20.74
490	482.28942108	7.71
178	169.85741882	8.14
234	243.65240987	-9.65

Mean Square Error = 501.713074

Desired Output	Predict	Error
320	318.90846954	1.09
490	479.32755224	10.67
335	320.60833204	14.39
308	298.78080144	9.22
470	462.93006946	7.07
393	380.34096437	12.66
488	478.53611264	9.46
362	343.23992471	18.76
390	375.08737207	14.91
308	303.41994065	4.58
339	324.06258977	14.94
243	228.82084636	14.18
155	166.19679553	-11.2
315	307.85655554	7.14
291	286.94546492	4.05
294	294.73001321	-0.73
231	227.37256875	3.63
214	220.61520622	-6.62
310	301.74962443	8.25
441	429.65752858	11.34
235	226.95483560	8.05
188	167.93182519	20.07
433	417.68199124	15.32
325	328.52387212	-3.52
236	234.40522890	1.59
319	314.35573346	4.64
351	334.66557005	16.33
328	331.37241020	-3.37
231	225.60341302	5.4
331	330.89935939	0.1
417	376.28037877	40.72

Mean Square Error = 157.337232

Desired Output	Predict	Error
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217	215.94590015	1.05
249	255.16023267	-6.16
288	275.12347023	12.88
209	223.81520579	-14.82
210	226.63738758	-16.64
209	224.97296455	-15.97
470	462.89096896	7.11
444	433.26738878	10.73
296	298.57973658	-2.58
323	309.69309964	13.31
208	224.43069317	-16.43
214	222.32407663	-8.32
322	320.05826872	1.94
448	440.32819467	7.67
420	379.71075855	40.29
357	344.54100120	12.46
215	220.27435077	-5.27
237	181.30759519	55.69
328	327.22077373	0.78
471	464.35034444	6.65
459	451.68324460	7.32
212	226.22426759	-14.22
365	349.79290351	15.21
478	473.14617458	4.85
215	219.33933621	-4.34
305	300.97801190	4.02
242	226.98873274	15.01
413	364.39287625	48.61
292	276.78014230	15.22
322	305.40868135	16.59
489	477.42446778	11.58

Mean Square Error = 336.617316

Desired Output	Predict	Error
208	233.21950158	-25.22
404	422.54925980	-18.55
311	337.35915430	-26.36
315	341.68045973	-26.68
471	474.18506456	-3.19
486	482.68759740	3.31
250	256.77066107	-6.77
422	437.96769531	-15.97
465	466.84397033	-1.84
214	236.01358073	-22.01
288	259.31201137	28.69
314	264.67900006	49.32
156	167.68793491	-11.69
490	483.07613938	6.92
235	241.57088056	-6.57
360	387.45032076	-27.45
255	260.63454596	-5.63
244	247.22900392	-3.23
450	462.59600531	-12.6
245	249.62347837	-4.62
396	418.00662077	-22.01
488	481.75241508	6.25
380	353.39135882	26.61
322	350.26898466	-28.27

356	381.31895094	-25.32
290	310.45951908	-20.46
313	340.05793718	-27.06
209	235.74928912	-26.75
303	328.12489943	-25.12
456	473.51250772	-17.51
259	286.77411083	-27.77

Mean Square Error = 448.476526

Desired Output	Predict	Error
236	228.02858274	7.97
274	266.38858813	7.61
345	333.67372184	11.33
390	356.47629449	33.52
478	479.70213485	-1.7
450	422.75102540	27.25
430	411.85730833	18.14
319	306.81563877	12.18
233	225.05370925	7.95
390	373.77155500	16.23
207	171.70163983	35.3
262	265.17213483	-3.17
156	163.85398359	-7.85
211	225.16213461	-14.16
470	462.73508671	7.26
469	460.05821448	8.94
401	390.57406759	10.43
225	216.33409874	8.67
326	303.67056824	22.33
284	269.86884145	14.13
381	366.25747345	14.74
361	345.74915240	15.25
280	248.25577301	31.74
305	292.70790768	12.29
250	264.37496125	-14.37
350	268.73047146	81.27
230	221.16387610	8.84
154	163.75644099	-9.76
315	302.79211248	12.21
436	424.51364589	11.49
270	244.23907522	25.76

Mean Square Error = 483.667955

Desired Output	Predict	Error
374	349.60620965	24.39
286	272.42625666	13.57
259	204.44091079	54.56
490	477.86076365	12.14
311	300.90579382	10.09
232	224.12228874	7.88
192	169.11949693	22.88
490	476.68395160	13.32
460	463.24933829	-3.25
465	472.11091900	-7.11
153	165.64118785	-12.64
153	165.67983511	-12.68
253	265.41181824	-12.41

213	222.94556169	-9.95
471	461.66272292	9.34
240	227.22490521	12.78
168	166.79602446	1.2
153	165.62062452	-12.62
296	283.27663049	12.72
317	309.03953017	7.96
454	426.54774418	27.45
468	458.20706098	9.79
153	165.55920163	-12.56
221	211.42416963	9.58
438	399.41576802	38.58
472	478.87128287	-6.87
303	289.48057534	13.52
164	166.47431575	-2.47
410	352.28178259	57.72
462	451.72174388	10.28
333	325.27356211	7.73

Mean Square Error = 398.694387

Desired Output	Predict	Error
465	458.15982652	6.84
211	225.33856408	-14.34
247	240.09056030	6.91
460	444.65284856	15.35
370	353.82041195	16.18
172	174.04565486	-2.05
349	339.83291737	9.17
251	262.11752005	-11.12
457	451.26873475	5.73
209	222.63255444	-13.63
376	363.07109112	12.93
327	312.07778682	14.92
248	241.86285925	6.14
484	475.85076551	8.15
405	376.14675111	28.85
297	285.92173852	11.08
232	222.08266522	9.92
156	173.01446140	-17.01
280	263.19366103	16.81
333	327.63866946	5.36
240	231.35104986	8.65
294	295.20627058	-1.21
213	223.49528096	-10.5
246	235.96887191	10.03
294	274.05322496	19.95
467	460.02318709	6.98
447	441.16675778	5.83
209	222.63255444	-13.63
302	291.18161413	10.82
464	468.93344392	-4.93
370	307.76711932	62.23

Mean Square Error = 269.153894

Desired Output	Predict	Error
467	452.16943731	14.83
308	287.93453456	20.07

218	216.33426860	1.67
245	239.36003758	5.64
466	449.38779991	16.61
447	453.25047984	-6.25
325	311.37183162	13.63
410	384.65344147	25.35
153	157.97678610	-4.98
468	469.70712866	-1.71
230	230.46684042	-0.47
160	158.68842491	1.31
298	292.54575611	5.45
412	358.28235522	53.72
216	218.46702973	-2.47
291	284.32156983	6.68
333	315.96730592	17.03
256	265.18488596	-9.18
420	378.59358991	41.41
224	169.08822885	54.91
451	447.91766131	3.08
377	345.32563713	31.67
428	374.00514736	53.99
382	358.96921495	23.03
290	280.77732418	9.22
305	289.59006307	15.41
416	392.05700203	23.94
340	308.89935400	31.1
445	406.97036493	38.03
153	157.88107794	-4.88
260	248.50108815	11.5

Mean Square Error = 574.959135

***** Mean Square Error Average : 418.876 *****
157.337232

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.17

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
303	306.37644177	-3.38
464	474.49107439	-10.49
214	236.61845716	-22.62
478	478.94547491	-0.95
290	312.78213349	-22.78
240	256.18142926	-16.18
333	359.17705237	-26.18
268	290.78892549	-22.79
333	367.35862371	-34.36
471	472.88971213	-1.89
188	168.69380359	19.31
331	361.19631556	-30.2
260	264.25596692	-4.26
328	361.60509364	-33.61
253	287.72153685	-34.72

308	331.48433699	-23.48
484	477.19939774	6.8
274	292.31631919	-18.32
459	468.38013864	-9.38
413	416.92199912	-3.92
405	422.78954840	-17.79
353	387.62181289	-34.62
294	324.55905428	-30.56
327	352.79031942	-25.79
160	166.66644741	-6.67
455	466.23844195	-11.24
490	478.59746132	11.4
416	441.30693880	-25.31
319	351.95749761	-32.96
344	376.70407057	-32.7
313	344.47083117	-31.47

Mean Square Error = 505.802242

Desired Output	Predict	Error
490	481.42937736	8.57
436	454.22608637	-18.23
288	258.21827447	29.78
231	242.30817417	-11.31
288	305.13059072	-17.13
245	251.10160993	-6.1
490	481.32510624	8.67
322	326.34150978	-4.34
460	463.18781522	-3.19
340	277.01404633	62.99
427	445.67730214	-18.68
398	373.80226844	24.2
454	454.23120819	-0.23
390	363.64953438	26.35
153	166.41197162	-13.41
290	274.33978773	15.66
460	475.40811225	-15.41
231	240.68453785	-9.68
153	166.33845746	-13.34
381	406.35022013	-25.35
215	232.11558090	-17.12
441	456.96449000	-15.96
307	322.83505434	-15.84
246	257.40194761	-11.4
396	419.83960663	-23.84
300	260.28467356	39.72
376	402.01140189	-26.01
255	258.28097192	-3.28
240	241.88870852	-1.89
280	290.60403937	-10.6
329	351.50106957	-22.5

Mean Square Error = 432.67891

Desired Output	Predict	Error
333	347.94985567	-14.95
309	335.03211023	-26.03
305	323.23842160	-18.24
244	248.74487797	-4.74

217	225.84047317	-8.84
236	251.88072469	-15.88
437	454.29452418	-17.29
218	224.70394809	-6.7
235	242.84521278	-7.85
164	167.94987588	-3.95
488	479.86312037	8.14
308	332.42661234	-24.43
153	166.81123161	-13.81
430	446.81023960	-16.81
296	310.86476581	-14.86
270	233.03573514	36.96
468	472.29984559	-4.3
315	342.33620647	-27.34
259	211.04244793	47.96
390	417.14128333	-27.14
284	295.55176200	-11.55
262	288.80226088	-26.8
153	166.60191913	-13.6
155	167.42525039	-12.43
259	288.64124836	-29.64
251	286.83961639	-35.84
303	318.76326764	-15.76
232	237.51951551	-5.52
486	478.91828386	7.08
360	301.81172628	58.19
303	328.70084359	-25.7

Mean Square Error = 524.6205

Desired Output	Predict	Error
328	251.85387239	76.15
290	285.74910987	4.25
447	437.73415722	9.27
298	299.96132046	-1.96
247	247.74491801	-0.74
361	344.03916355	16.96
230	217.38360128	12.62
412	411.03638204	0.96
483	477.81613880	5.18
296	298.31530153	-2.32
339	323.65031479	15.35
490	477.72596342	12.27
317	311.06354264	5.94
490	476.77751602	13.22
178	167.91952641	10.08
247	246.32109482	0.68
249	253.93834183	-4.94
241	222.74825584	18.25
431	418.32897240	12.67
475	470.94684093	4.05
280	242.54441062	37.46
308	295.28080115	12.72
462	454.01522088	7.98
469	461.31714645	7.68
291	289.94236829	1.06
230	224.44395578	5.56
314	299.30821915	14.69
427	403.34898815	23.65
306	294.80770255	11.19

445		414.74816269		30.25
291		287.43170991		3.57

Mean Square Error = 360.252752

Desired Output		Predict		Error
410		426.69782938		-16.7
233		240.90645737		-7.91
215		232.41580853		-17.42
357		382.33038825		-25.33
214		237.17423749		-23.17
440		454.70543372		-14.71
216		231.26497176		-15.26
156		165.14477628		-9.14
210		240.47334265		-30.47
265		285.97171179		-20.97
239		258.89387648		-19.89
349		373.41822607		-24.42
422		436.79822006		-14.8
311		336.19177638		-25.19
412		402.53886271		9.46
456		473.39790748		-17.4
322		349.27269121		-27.27
325		354.86833046		-29.87
232		244.13584477		-12.14
374		390.19215892		-16.19
153		164.32044797		-11.32
397		425.32920233		-28.33
310		328.46261232		-18.46
305		320.13655007		-15.14
433		425.28975832		7.71
341		367.43587062		-26.44
317		342.87221960		-25.87
224		182.27509665		41.72
234		244.20660228		-10.21
410		397.88637344		12.11
438		434.10032006		3.9

Mean Square Error = 417.504155

Desired Output		Predict		Error
467		456.48009377		10.52
297		287.63016082		9.37
328		326.00146281		2.0
250		268.20370821		-18.2
417		373.10984547		43.89
238		240.36951407		-2.37
337		327.11258065		9.89
490		478.64004351		11.36
470		461.82044862		8.18
245		235.21164908		9.79
153		166.62727795		-13.63
465		468.81892979		-3.82
435		431.61192391		3.39
489		476.84041669		12.16
232		224.15212305		7.85
451		449.57689963		1.42
293		292.38573358		0.61
270		245.57540279		24.42

248	247.05441970	0.95
211	225.43442561	-14.43
468	468.60376123	-0.6
481	478.25386693	2.75
486	477.63764564	8.36
214	222.35669880	-8.36
235	226.20187747	8.8
234	229.75883837	4.24
215	219.02689343	-4.03
405	357.36971060	47.63
256	265.70974490	-9.71
444	431.69106711	12.31
471	462.42794941	8.57

Mean Square Error = 223.603823

Desired Output	Predict	Error
288	275.84920136	12.15
489	474.86703341	14.13
335	318.21272105	16.79
362	334.02643959	27.97
433	414.92518335	18.07
243	230.14363797	12.86
211	225.63218351	-14.63
253	266.26835017	-13.27
252	266.95289523	-14.95
323	307.32541381	15.67
209	222.38840149	-13.39
153	163.28828085	-10.29
393	377.22454541	15.78
213	224.00790014	-11.01
215	218.17898811	-3.18
168	164.69714893	3.3
156	164.02606017	-8.03
300	286.60806560	13.39
485	475.10888790	9.89
325	316.63915642	8.36
294	291.95296716	2.05
234	226.83031702	7.17
328	319.94859627	8.05
286	274.09930730	11.9
252	267.17360092	-15.17
390	352.41269350	37.59
294	280.10757452	13.89
294	288.82286082	5.18
470	459.14367466	10.86
327	304.20616308	22.79
401	390.97639080	10.02

Mean Square Error = 216.552303

Desired Output	Predict	Error
209	234.96007550	-25.96
470	473.62079227	-3.62
326	322.55268144	3.45
450	464.50924334	-14.51
302	315.00961932	-13.01
365	392.44561660	-27.45
237	183.29020860	53.71

315	335.99011123	-20.99
221	224.69313169	-3.69
330	339.13472998	-9.13
385	414.61188102	-29.61
470	480.54414894	-10.54
315	335.35081320	-20.35
315	323.91975010	-8.92
156	167.97126358	-11.97
450	452.17408578	-2.17
319	341.01214981	-22.01
276	292.44322982	-16.44
314	266.11997785	47.88
471	474.25166448	-3.25
447	472.02936683	-25.03
208	233.14781483	-25.15
488	479.66188645	8.34
322	350.17804973	-28.18
465	468.07396186	-3.07
370	325.74041559	44.26
345	372.82204668	-27.82
209	235.23270353	-26.23
382	411.48035612	-29.48
478	478.14790135	-0.15
457	461.41391916	-4.41

Mean Square Error = 528.497148

Desired Output	Predict	Error
246	191.58480484	54.42
490	478.19157385	11.81
424	391.13822635	32.86
210	224.56612588	-14.57
208	222.51648481	-14.52
165	165.47273906	-0.47
153	164.63449337	-11.63
245	239.28728143	5.71
212	224.84613676	-12.85
475	478.89465537	-3.89
360	343.18169816	16.82
420	376.37857944	43.62
250	243.62444778	6.38
472	478.71488029	-6.71
208	220.69736018	-12.7
467	456.92024140	10.08
172	165.74844080	6.25
368	349.95206101	18.05
465	454.64979365	10.35
404	380.46046067	23.54
300	300.09960036	-0.1
213	223.47950809	-10.48
468	476.71964678	-8.72
209	222.60431240	-13.6
288	284.97021302	3.03
246	245.57683235	0.42
320	314.30367721	5.7
470	469.32643422	0.67
448	437.80454027	10.2
247	245.04022799	1.96
420	380.46790135	39.53

Mean Square Error = 341.814265

Desired Output	Predict	Error
207	172.62968292	34.37
470	462.76226276	7.24
153	165.13268923	-12.13
209	222.45104354	-13.45
340	321.90257603	18.1
457	450.95475298	6.05
238	226.39533870	11.6
305	299.00487705	6.0
154	165.46354825	-11.46
230	225.02492641	4.98
481	475.45528190	5.54
471	464.07777691	6.92
390	377.85269898	12.15
242	224.27771809	17.72
292	273.55613063	18.44
356	342.32244988	13.68
271	264.41032151	6.59
380	330.31107624	49.69
444	436.45301150	7.55
350	268.41703814	81.58
209	223.57993049	-14.58
377	355.61256229	21.39
307	299.77101005	7.23
490	480.14776672	9.85
469	461.05581191	7.94
236	227.20495623	8.8
240	227.53274613	12.47
311	299.63691442	11.36
225	215.74611564	9.25
192	168.96797986	23.03
428	385.39560179	42.6

Mean Square Error = 523.225735

***** Mean Square Error Average : 407.4552 *****
216.552303

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.18

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
466	469.55919033	-3.56
413	406.04915530	6.95
322	350.61483797	-28.61
288	306.96857127	-18.97
286	295.57529332	-9.58
465	470.92646360	-5.93
231	240.81173869	-9.81
250	255.22395575	-5.22
207	170.35443854	36.65

255	259.67242071	-4.67
315	334.95785542	-19.96
211	238.26133166	-27.26
422	437.73765168	-15.74
328	268.16582214	59.83
471	474.53795467	-3.54
230	232.87278799	-2.87
345	369.36499643	-24.36
232	238.54528149	-6.55
250	284.70657461	-34.71
315	334.51298270	-19.51
294	319.40979501	-25.41
268	287.66746942	-19.67
420	422.35102641	-2.35
433	426.23239333	6.77
215	232.60801757	-17.61
168	163.21276320	4.79
215	229.87847428	-14.88
246	196.09576925	49.9
188	164.37403455	23.63
300	261.54661286	38.45
405	392.57507880	12.42

Mean Square Error = 528.569858

Desired Output	Predict	Error
471	461.76539892	9.23
344	326.99534924	17.0
313	307.70159862	5.3
241	223.42044613	17.58
440	427.27575434	12.72
215	217.69491550	-2.69
333	322.89816786	10.1
284	271.20536386	12.79
327	310.40058534	16.6
326	303.75196888	22.25
156	167.32330093	-11.32
433	414.59640580	18.4
335	318.35768370	16.64
232	227.10335929	4.9
483	477.52132276	5.48
420	372.68504912	47.31
361	342.41786603	18.58
265	265.98339117	-0.98
475	478.42299360	-3.42
156	167.38796157	-11.39
288	284.76689223	3.23
444	433.19141302	10.81
291	286.51140043	4.49
305	299.85094530	5.15
216	214.60163582	1.4
308	294.09827592	13.9
475	470.17081924	4.83
276	268.23676844	7.76
457	446.90890482	10.09
153	166.86615977	-13.87
270	244.72388427	25.28

Mean Square Error = 220.194055

Desired Output	Predict	Error
247	248.39165030	-1.39
357	342.98905444	14.01
153	166.58223721	-13.58
472	476.96631487	-4.97
315	308.48170129	6.52
236	228.51942112	7.48
153	166.71750875	-13.72
390	371.61309262	18.39
468	468.06750675	-0.07
410	390.11247251	19.89
490	476.42764888	13.57
293	291.76779612	1.23
460	464.43733333	-4.44
485	476.21348209	8.79
153	166.50196692	-13.5
490	476.48455869	13.52
246	242.66956441	3.33
280	271.79940102	8.2
247	246.61481329	0.39
294	280.18785782	13.81
209	221.69222039	-12.69
376	358.38773031	17.61
235	226.56587266	8.43
470	462.15861698	7.84
441	431.25837415	9.74
274	269.54759676	4.45
451	451.29817066	-0.3
239	243.21381145	-4.21
305	294.43070863	10.57
303	293.14842031	9.85
490	476.31461173	13.69

Mean Square Error = 112.16249

Desired Output	Predict	Error
424	394.16608175	29.83
445	414.49517981	30.5
208	217.65512964	-9.66
490	477.19071280	12.81
237	177.90568293	59.09
259	201.10081585	57.9
317	310.61136769	6.39
469	462.35639909	6.64
253	266.53352283	-13.53
470	463.38485080	6.62
328	325.55247658	2.45
488	476.33627278	11.66
417	373.43840314	43.56
467	458.46944292	8.53
153	165.06133688	-12.06
337	326.03895357	10.96
468	475.43224819	-7.43
470	470.41554583	-0.42
320	313.97145965	6.03
350	268.91491626	81.09
230	223.87007113	6.13
397	387.25162387	9.75
370	347.14940122	22.85

319	312.54171977	6.46
382	363.37442068	18.63
303	290.06732481	12.93
427	403.99590139	23.0
381	363.51504243	17.48
156	165.56787065	-9.57
328	321.77902289	6.22
245	234.17465934	10.83

Mean Square Error = 663.590055

Desired Output	Predict	Error
490	471.25338518	18.75
209	226.11930032	-17.12
307	290.31394179	16.69
353	332.62711810	20.37
306	288.10822973	17.89
260	248.59579972	11.4
456	455.08567627	0.91
323	302.39567253	20.6
471	457.23258239	13.77
317	302.08120699	14.92
330	303.16871273	26.83
234	234.89706205	-0.9
236	238.33786559	-2.34
211	229.16349227	-18.16
450	416.29752076	33.7
240	232.71072620	7.29
484	467.75900764	16.24
465	464.21081592	0.79
360	339.55818345	20.44
478	471.99052390	6.01
290	267.89155240	22.11
210	228.57145439	-18.57
457	432.12811973	24.87
339	316.95380856	22.05
213	226.92796210	-13.93
390	369.02743464	20.97
252	264.85379519	-12.85
368	346.76926011	21.23
435	429.85599284	5.14
481	466.90310988	14.1
340	263.92257955	76.08

Mean Square Error = 477.097826

Desired Output	Predict	Error
314	263.89939451	50.1
315	321.84458804	-6.84
208	237.42295497	-29.42
302	312.72897333	-10.73
370	323.18769763	46.81
232	242.36188365	-10.36
153	163.16382216	-10.16
210	239.51653473	-29.52
213	239.54989442	-26.55
290	308.09579831	-18.1
154	163.41694589	-9.42
340	339.15665105	0.84

296	308.24701048	-12.25
165	164.49429272	0.51
470	481.40963901	-11.41
470	473.77248960	-3.77
271	286.48112805	-15.48
224	178.25847507	45.74
393	421.45744907	-28.46
300	326.48443567	-26.48
235	244.27300598	-9.27
305	319.38877368	-14.39
328	355.95772788	-27.96
288	296.60730040	-8.61
256	282.97447361	-26.97
471	473.92052685	-2.92
380	349.01414912	30.99
436	454.47861322	-18.48
310	327.86423290	-17.86
470	473.26103502	-3.26
360	298.18666878	61.81

Mean Square Error = 626.033048

Desired Output	Predict	Error
225	227.39071628	-2.39
245	258.62560688	-13.63
437	454.18398074	-17.18
290	309.43292447	-19.43
217	226.24256048	-9.24
234	242.63488835	-8.63
291	314.22262222	-23.22
464	476.26172927	-12.26
280	263.09955239	16.9
156	169.78230284	-13.78
444	459.69340187	-15.69
329	351.43919076	-22.44
262	290.31866192	-28.32
454	454.46882130	-0.47
243	247.09158160	-4.09
298	325.57630464	-27.58
164	169.86876781	-5.87
246	265.46081872	-19.46
296	323.68316803	-27.68
327	331.52868677	-4.53
231	244.87563053	-13.88
308	330.70128623	-22.7
307	328.55065108	-21.55
244	250.99474573	-6.99
412	398.92032630	13.08
215	230.25803291	-15.26
428	415.80583097	12.19
351	374.98802530	-23.99
160	169.79394186	-9.79
214	233.81950094	-19.82
398	373.56259403	24.44

Mean Square Error = 295.273284

Desired Output	Predict	Error
438	404.57966799	33.42

214	221.09089087	-7.09
218	212.99869003	5.0
460	445.20787271	14.79
489	474.57189345	14.43
416	396.11969830	19.88
297	286.25784051	10.74
253	265.91830360	-12.92
251	267.19716416	-16.2
288	245.91219314	42.09
245	235.08733487	9.91
303	299.09776480	3.9
240	228.22522806	11.77
431	418.61561234	12.38
221	212.00435821	9.0
430	411.10292215	18.9
448	441.16192946	6.84
314	299.20359064	14.8
311	299.21549988	11.78
396	376.52634483	19.47
153	165.39676386	-12.4
155	166.03309791	-11.03
240	237.48507151	2.51
294	289.47331258	4.53
300	286.81439773	13.19
259	268.15908229	-9.16
459	451.09039453	7.91
465	450.76925721	14.23
447	438.13187403	8.87
490	476.15849266	13.84
404	382.40975552	21.59

Mean Square Error = 242.556952

Desired Output	Predict	Error
469	472.49096791	-3.49
153	166.23266484	-13.23
410	397.70716366	12.29
365	387.95321670	-22.95
325	355.60423022	-30.6
341	367.53972702	-26.54
309	334.17883827	-25.18
325	353.78504612	-28.79
486	482.25859102	3.74
209	235.85211829	-26.85
481	482.68215966	-1.68
490	482.56887220	7.43
377	392.56615105	-15.57
333	355.21350329	-22.21
322	349.76981352	-27.77
270	237.54734962	32.45
455	464.98331473	-9.98
385	409.32593940	-24.33
467	471.87069168	-4.87
450	462.68022076	-12.68
238	240.47628878	-2.48
292	300.53982140	-8.54
209	236.06428936	-27.06
462	469.57440310	-7.57
242	242.35668487	-0.36
192	170.10422786	21.9

488		481.45865207		6.54
294		322.05885641		-28.06
374		391.34871935		-17.35
252		285.63667650		-33.64
468		472.96159155		-4.96

Mean Square Error = 381.717326

Desired Output		Predict		Error
490		475.80953575		14.19
390		337.42992511		52.57
208		224.29746969		-16.3
230		228.36626715		1.63
478		471.64572974		6.35
308		297.16998299		10.83
153		166.12023413		-13.12
349		333.74194302		15.26
489		476.06375692		12.94
447		461.12007751		-14.12
249		257.97307716		-8.97
178		167.92394078		10.08
486		474.08392012		11.92
356		337.57697931		18.42
319		305.94242976		13.06
209		223.50182459		-14.5
333		318.00573500		14.99
401		384.42512211		16.57
234		230.79728617		3.2
390		353.72547673		36.27
248		252.36759954		-4.37
362		334.47359019		27.53
405		372.60403188		32.4
247		251.47104476		-4.47
238		243.30049696		-5.3
172		167.63225428		4.37
311		305.35638700		5.64
212		226.00579755		-14.01
214		224.39182113		-10.39
427		412.36978530		14.63
331		324.61535259		6.38

Mean Square Error = 306.991277

***** Mean Square Error Average : 385.4186 *****
112.16249

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.19

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
475		480.24105092		-5.24
247		268.93950913		-21.94
209		235.41663153		-26.42

302	315.11671959	-13.12
294	321.90968237	-27.91
390	367.26667756	22.73
305	322.85000656	-17.85
457	461.08866018	-4.09
214	234.99044713	-20.99
490	479.59069507	10.41
246	194.74094235	51.26
250	257.93830754	-7.94
393	424.92850548	-31.93
245	250.07155488	-5.07
160	167.43589846	-7.44
300	315.04373302	-15.04
328	271.08081696	56.92
291	314.52517801	-23.53
250	288.06315369	-38.06
470	472.74619746	-2.75
456	473.00609482	-17.01
478	480.19599900	-2.2
208	237.50164433	-29.5
234	242.39610692	-8.4
481	477.96841487	3.03
433	429.86583223	3.13
300	264.28673967	35.71
296	310.92554032	-14.93
211	239.07998939	-28.08
308	332.29008090	-24.29
412	433.47904792	-21.48

Mean Square Error = 561.869006

Desired Output	Predict	Error
245	250.81726763	-5.82
314	264.53970045	49.46
362	363.44012415	-1.44
349	373.56956152	-24.57
270	237.67467476	32.33
382	405.78159614	-23.78
232	238.58832593	-6.59
153	170.26234557	-17.26
447	472.11127136	-25.11
288	259.09876035	28.9
164	171.14482107	-7.14
341	367.54607240	-26.55
238	257.31871613	-19.32
271	289.37072681	-18.37
290	279.05191282	10.95
470	474.53968728	-4.54
465	478.90935628	-13.91
328	358.24536919	-30.25
153	170.31978007	-17.32
256	286.03725447	-30.04
350	286.91999457	63.08
225	227.51932874	-2.52
156	170.81634811	-14.82
311	332.80464293	-21.8
319	340.60802156	-21.61
445	440.30002378	4.7
252	285.72375399	-33.72
209	234.32685385	-25.33

251	285.47208678	-34.47
333	347.58194041	-14.58
311	337.66261911	-26.66

Mean Square Error = 628.429006

Desired Output	Predict	Error
213	241.29289997	-28.29
328	358.71449775	-30.71
260	264.94023516	-4.94
248	265.31749178	-17.32
153	161.42285261	-8.42
345	375.65632568	-30.66
315	325.57957685	-10.58
333	364.42483094	-31.42
238	244.62890283	-6.63
465	471.80951962	-6.81
280	293.41790159	-13.42
481	481.80859352	-0.81
390	420.32420573	-30.32
244	250.93645920	-6.94
471	475.00234171	-4.0
356	387.29868919	-31.3
416	439.20544637	-23.21
303	318.99127222	-15.99
276	291.50907883	-15.51
309	335.88708804	-26.89
339	366.77536969	-27.78
471	474.49550228	-3.5
410	406.45212878	3.55
286	296.62370609	-10.62
288	299.13662093	-11.14
221	230.33185904	-9.33
413	415.01095672	-2.01
156	161.75605779	-5.76
444	460.78943095	-16.79
447	463.12504892	-16.13
390	419.54695058	-29.55

Mean Square Error = 346.553932

Desired Output	Predict	Error
252	288.42068655	-36.42
468	478.98450161	-10.98
214	237.99311319	-23.99
374	397.54002420	-23.54
213	241.25748020	-28.26
470	480.08858897	-10.09
209	240.40990544	-31.41
292	303.39457901	-11.39
153	163.37311734	-10.37
428	421.67266885	6.33
215	235.84739624	-20.85
247	267.33118078	-20.33
231	245.46474278	-14.46
234	251.80543138	-17.81
294	314.13415493	-20.13
466	470.11193022	-4.11
315	337.00236336	-22.0

322	351.81443202	-29.81
489	480.14252306	8.86
467	471.47055871	-4.47
410	434.46598154	-24.47
327	349.30556285	-22.31
192	169.09066073	22.91
231	247.35817060	-16.36
303	328.77833575	-25.78
490	480.90036196	9.1
424	437.66211244	-13.66
236	247.73918090	-11.74
291	312.12132967	-21.12
490	480.73062398	9.27
435	455.12043503	-20.12

Mean Square Error = 384.071384

Desired Output	Predict	Error
478	479.75293228	-1.75
430	444.03930816	-14.04
274	290.79784712	-16.8
305	328.60886303	-23.61
448	462.94277295	-14.94
232	244.03235817	-12.03
325	355.09652528	-30.1
234	244.41633198	-10.42
401	424.56550861	-23.57
315	335.93564587	-20.94
488	481.61546426	6.38
211	240.07295109	-29.07
294	305.35033402	-11.35
475	479.15776060	-4.16
265	288.75842473	-23.76
210	239.48810399	-29.49
470	473.74332622	-3.74
469	472.29332171	-3.29
484	480.76181344	3.24
156	168.05461855	-12.05
468	477.81588925	-9.82
207	174.82894197	32.17
232	241.41587394	-9.42
218	226.40027605	-8.4
412	402.19703929	9.8
357	383.04217893	-26.04
490	482.86521205	7.13
469	473.60101229	-4.6
240	244.16796746	-4.17
328	357.24124070	-29.24
330	339.82863456	-9.83

Mean Square Error = 295.766261

Desired Output	Predict	Error
212	239.54947881	-27.55
333	352.37647596	-19.38
153	166.98046071	-13.98
427	445.82272242	-18.82
284	296.30383418	-12.3
235	245.56728761	-10.57

209	236.79141303	-27.79
310	328.80007349	-18.8
208	234.67869153	-26.68
293	317.22062142	-24.22
172	168.33893078	3.66
323	342.41689213	-19.42
296	323.82143481	-27.82
215	231.51440969	-16.51
214	237.54283479	-23.54
319	345.58391765	-26.58
437	453.88509083	-16.89
241	243.51303317	-2.51
305	321.14106394	-16.14
242	245.35373176	-3.35
468	473.08947198	-5.09
209	237.18134193	-28.18
188	169.32288521	18.68
315	340.47530490	-25.48
247	267.39990364	-20.4
290	311.00115404	-21.0
340	343.09894991	-3.1
422	440.69281442	-18.69
209	236.95550570	-27.96
390	387.01263568	2.99
471	474.44422688	-3.44

Mean Square Error = 369.973903

Desired Output	Predict	Error
465	463.37636464	1.62
245	255.56275159	-10.56
490	482.70290552	7.3
483	482.21090256	0.79
471	473.30700216	-2.31
361	383.39666849	-22.4
486	482.02171566	3.98
490	482.63429744	7.37
460	459.14405638	0.86
485	482.10259522	2.9
270	262.86344083	7.14
243	245.05455286	-2.05
253	285.71958676	-32.72
210	240.52093908	-30.52
450	442.17429340	7.83
288	308.57447535	-20.57
178	168.35979593	9.64
246	262.21556652	-16.22
253	285.53385459	-32.53
440	454.66730324	-14.67
365	387.22609402	-22.23
470	472.85287731	-2.85
444	458.35771976	-14.36
300	329.17841221	-29.18
235	244.01330141	-9.01
381	403.62043145	-22.62
398	371.64213495	26.36
420	402.55269975	17.45
327	334.73169200	-7.73
155	166.65538240	-11.66
417	414.74452035	2.26

Mean Square Error = 267.050248

Desired Output	Predict	Error
208	234.75112174	-26.75
259	210.88761839	48.11
340	278.47961096	61.52
259	286.57007100	-27.57
168	165.76768872	2.23
306	321.74916815	-15.75
368	394.82379656	-26.82
294	318.70015583	-24.7
262	286.56515731	-24.57
154	164.64648490	-10.65
436	454.82231193	-18.82
370	391.29476041	-21.29
165	165.53813932	-0.54
377	395.03968578	-18.04
280	254.28087229	25.72
320	343.95535361	-23.96
216	227.28389080	-11.28
441	457.58110726	-16.58
451	469.95484931	-18.95
215	232.10943890	-17.11
490	481.10890781	8.89
405	414.16397151	-9.16
268	287.20014533	-19.2
351	374.38017309	-23.38
455	466.42399495	-11.42
380	347.33230919	32.67
237	182.29586024	54.7
322	328.27785029	-6.28
290	308.30072765	-18.3
233	239.12568431	-6.13
397	425.00239332	-28.0

Mean Square Error = 637.45861

Desired Output	Predict	Error
314	295.87914415	18.12
236	235.67387862	0.33
462	454.31225073	7.69
153	163.24859531	-10.25
331	324.30947797	6.69
457	449.31426967	7.69
405	357.64914775	47.35
217	214.34022760	2.66
490	476.43222795	13.57
308	296.55243268	11.45
224	173.04444041	50.96
308	293.37485041	14.63
322	317.41881790	4.58
489	475.90023932	13.1
230	226.35953368	3.64
317	309.70031826	7.3
298	298.03470294	-0.03
240	237.08941330	2.91
288	284.13513279	3.86
360	282.71142786	77.29

376	358.52348492	17.48
335	318.48744977	16.51
459	451.68739965	7.31
396	378.05307362	17.95
249	255.50463010	-6.5
255	246.52659966	8.47
246	242.45825945	3.54
153	163.23441069	-10.23
360	344.21540682	15.78
385	370.20025227	14.8
307	299.56397142	7.44

Mean Square Error = 449.562042

Desired Output	Predict	Error
404	382.73470663	21.27
450	442.33521409	7.66
431	418.85517292	12.14
297	285.33250638	11.67
467	458.51141281	8.49
337	326.39640624	10.6
464	467.06082778	-3.06
325	318.50557252	6.49
486	474.66707709	11.33
427	403.62827906	23.37
472	477.33632704	-5.34
230	218.90857557	11.09
454	430.68080912	23.32
420	383.03261830	36.97
353	338.91690677	14.08
240	227.60760061	12.39
370	304.42352138	65.58
153	166.83596771	-13.84
307	295.89795136	11.1
303	292.15953551	10.84
329	315.05165678	13.95
438	402.85416102	35.15
313	307.73563328	5.26
433	417.49437291	15.51
239	241.07950846	-2.08
153	166.72740193	-13.73
156	167.55243382	-11.55
230	225.59931127	4.4
215	216.92097269	-1.92
326	303.68700033	22.31
488	476.56407572	11.44

Mean Square Error = 371.878074

***** Mean Square Error Average : 431.2612 *****
267.050248

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.2

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
381	365.47631963	15.52
490	477.16070394	12.84
172	162.88906547	9.11
188	164.04302885	23.96
327	309.51422346	17.49
213	222.71466411	-9.71
490	477.14080926	12.86
241	224.33949361	16.66
230	222.21983492	7.78
209	221.50789158	-12.51
322	313.35234106	8.65
486	474.33590578	11.66
315	303.26724807	11.73
314	250.39844033	63.6
445	414.25268163	30.75
153	161.47825566	-8.48
467	458.00219997	9.0
307	294.21376864	12.79
320	313.12078289	6.88
213	222.01545971	-9.02
297	289.78081797	7.22
412	403.43758665	8.56
481	472.55306399	8.45
274	265.78633451	8.21
422	405.29287579	16.71
232	228.12143646	3.88
268	264.75329819	3.25
351	334.20272201	16.8
490	476.90655543	13.09
209	221.23554248	-12.24
153	161.20085721	-8.2

Mean Square Error = 295.05599

Desired Output	Predict	Error
447	462.89431578	-15.89
156	167.15457305	-11.15
350	287.23428747	62.77
302	314.10894756	-12.11
328	354.44542828	-26.45
468	476.08808586	-8.09
365	392.69399222	-27.69
368	399.10970187	-31.11
238	240.69692522	-2.7
319	339.96189025	-20.96
311	331.05108421	-20.05
234	248.18788408	-14.19
337	365.88143449	-28.88
224	178.99060271	45.01
427	443.85073193	-16.85
240	244.43419526	-4.43
370	324.24900359	45.75
153	166.09876236	-13.1
253	285.94810120	-32.95
413	413.26581038	-0.27
294	303.85619465	-9.86
323	343.36971872	-20.37

288	297.93319560	-9.93
405	391.56711807	13.43
178	168.39263961	9.61
466	469.48810323	-3.49
208	234.54672115	-26.55
470	472.59721374	-2.6
478	477.48582219	0.51
248	266.60084488	-18.6
471	473.61887889	-2.62

Mean Square Error = 531.854319

Desired Output	Predict	Error
322	299.92207913	22.08
465	453.22034727	11.78
397	384.04659350	12.95
376	356.53015598	19.47
490	475.66578819	14.33
265	265.73330149	-0.73
444	430.25932838	13.74
153	163.93886994	-10.94
390	334.98344674	55.02
441	426.41047510	14.59
293	288.89826410	4.1
448	439.04488734	8.96
290	269.43377923	20.57
467	453.38087580	13.62
469	455.76637170	13.23
153	163.73531192	-10.74
247	243.85619634	3.14
303	297.04604541	5.95
215	217.42458336	-2.42
430	408.29115163	21.71
470	458.67642253	11.32
465	445.44259425	19.56
481	476.35082178	4.65
436	421.42745972	14.57
238	242.72627415	-4.73
478	476.69213077	1.31
245	238.41949503	6.58
231	226.21029454	4.79
457	431.93085789	25.07
250	242.99633408	7.0
246	241.30841921	4.69

Mean Square Error = 257.436052

Desired Output	Predict	Error
217	214.66233289	2.34
438	405.93056024	32.07
235	226.61505848	8.38
468	477.12791004	-9.13
428	385.75145576	42.25
271	267.01960959	3.98
296	296.99735588	-1.0
209	222.58362550	-13.58
247	246.28549028	0.71
209	221.35287781	-12.35
270	245.14970286	24.85

309	303.88849739	5.11
416	398.34927721	17.65
412	370.88430690	41.12
490	479.68417811	10.32
469	462.76016426	6.24
396	379.32665019	16.67
431	419.90840096	11.09
255	246.58976106	8.41
361	345.42288217	15.58
488	478.61295803	9.39
156	164.78212686	-8.78
235	227.16008387	7.84
327	306.70936728	20.29
207	171.80282666	35.2
410	391.38063141	18.62
490	479.23662651	10.76
214	221.11138734	-7.11
483	479.66347822	3.34
317	311.11152212	5.89
308	293.69335957	14.31

Mean Square Error = 305.60609

Desired Output	Predict	Error
259	289.76744002	-30.77
424	439.33563076	-15.34
234	245.38270496	-11.38
247	270.19148412	-23.19
475	479.51953564	-4.52
214	238.87233588	-24.87
233	245.08697511	-12.09
335	360.45404583	-25.45
153	162.51651231	-9.52
328	359.06997759	-31.07
360	393.42217286	-33.42
237	182.16885002	54.83
305	323.38686968	-18.39
239	263.02385773	-24.02
459	469.37017281	-10.37
382	414.90893516	-32.91
231	246.97842914	-15.98
377	400.64065686	-23.64
405	422.12717648	-17.13
447	469.54781667	-22.55
240	246.48090623	-6.48
401	430.91232006	-29.91
341	371.78821246	-30.79
230	245.48670449	-15.49
475	477.05735698	-2.06
490	479.63398575	10.37
471	473.70865265	-2.71
450	465.54638905	-15.55
253	287.33413785	-34.33
471	473.80142200	-2.8
308	332.16716316	-24.17

Mean Square Error = 530.302645

Desired Output	Predict	Error

245	232.01043730	12.99
471	462.67430113	8.33
153	167.40789878	-14.41
485	476.51647116	8.48
393	378.69612406	14.3
326	304.52363323	21.48
437	424.15770225	12.84
288	285.36518076	2.63
362	336.19750260	25.8
156	168.13693349	-12.14
328	252.11341681	75.89
305	299.99427718	5.01
374	349.86210222	24.14
280	241.96087078	38.04
329	315.39594006	13.6
290	287.59593833	2.4
451	451.49848459	-0.5
420	383.21470998	36.79
270	222.23815318	47.76
154	167.93307842	-13.93
246	243.57969651	2.42
313	308.06242512	4.94
216	212.54375565	3.46
315	303.27800680	11.72
470	469.48623174	0.51
440	430.07245817	9.93
340	319.41402631	20.59
284	272.79352748	11.21
308	297.99399130	10.01
470	462.46647282	7.53
230	223.85566487	6.14

Mean Square Error = 484.669284

Desired Output	Predict	Error
328	324.19485305	3.81
259	207.66181810	51.34
315	301.26793365	13.73
232	227.51895967	4.48
344	330.03403076	13.97
168	164.24674257	3.75
160	163.74541548	-3.75
370	351.80192157	18.2
314	301.57025824	12.43
333	323.49483525	9.51
472	479.20721790	-7.21
245	234.27742285	10.72
300	301.52079689	-1.52
307	301.74125624	5.26
310	300.65205134	9.35
462	456.69176767	5.31
490	479.08311543	10.92
303	289.83596580	13.16
215	218.43715382	-3.44
288	283.86106290	4.14
385	372.96469578	12.04
420	380.92017945	39.08
325	326.42854673	-1.43
225	214.88800413	10.11
210	224.52120437	-14.52

246	190.44868151	55.55
311	307.38540375	3.61
232	225.09159254	6.91
331	329.99434866	1.01
208	221.51834799	-13.52
464	469.10342670	-5.1

Mean Square Error = 310.837703

Desired Output	Predict	Error
339	317.35376954	21.65
489	471.44008904	17.56
410	348.13747401	61.86
286	273.96432094	12.04
455	441.90300451	13.1
345	326.01853034	18.98
349	328.95823273	20.04
153	165.28376863	-12.28
489	472.49738003	16.5
291	286.35304137	4.65
296	283.36613020	12.63
486	472.35555189	13.64
319	308.55109165	10.45
456	456.52894023	-0.53
243	228.00146062	15.0
155	165.88418133	-10.88
252	268.40892243	-16.41
470	457.89633113	12.1
315	305.56843657	9.43
215	218.03840718	-3.04
305	292.11650526	12.88
417	367.33342430	49.67
444	429.00944718	14.99
292	277.24484424	14.76
236	227.48621138	8.51
465	466.78819814	-1.79
276	270.66545031	5.33
256	267.42142848	-11.42
390	364.50508856	25.49
249	255.93971959	-6.94
290	284.94194433	5.06

Mean Square Error = 370.084739

Desired Output	Predict	Error
404	387.04070425	16.96
208	220.95996882	-12.96
330	312.36914419	17.63
209	224.09539132	-15.1
325	319.64079275	5.36
317	308.06496816	8.94
240	236.19814824	3.8
153	165.54373492	-12.54
294	286.75034050	7.25
221	214.50725303	6.49
218	215.40948217	2.59
210	226.04455080	-16.04
470	477.82099019	-7.82
357	345.63293768	11.37

390	377.77021361	12.23
488	477.35068364	10.65
165	166.50672811	-1.51
360	281.01234795	78.99
333	324.92645286	8.07
156	165.84765327	-9.85
468	461.64560130	6.35
398	342.21695833	55.78
211	227.10402996	-16.1
250	263.78879922	-13.79
242	224.77338931	17.23
234	228.62220554	5.38
454	428.40434790	25.6
433	389.98819652	43.01
380	322.59912619	57.4
340	261.37925836	78.62
306	291.69951196	14.3

Mean Square Error = 793.652139

Desired Output	Predict	Error
353	378.18465241	-25.18
427	443.56446492	-16.56
236	251.88414731	-15.88
209	237.42139385	-28.42
251	287.42791615	-36.43
300	263.63131362	36.37
215	231.20050904	-16.2
435	451.56856566	-16.57
294	323.02803455	-29.03
460	476.16851172	-16.17
262	288.75086055	-26.75
390	383.32491537	6.68
212	240.15007286	-28.15
252	287.47655792	-35.48
433	447.70914155	-14.71
294	320.81819771	-26.82
288	261.76787217	26.23
457	467.06507441	-10.07
484	481.06173804	2.94
322	349.73272692	-27.73
356	379.90593774	-23.91
244	248.53753725	-4.54
214	235.82972484	-21.83
291	315.42973883	-24.43
192	171.49806281	20.5
460	462.30967878	-2.31
164	168.34653461	-4.35
303	310.28690729	-7.29
298	327.71476234	-29.71
211	241.08513062	-30.09
280	293.33059702	-13.33

Mean Square Error = 506.5332

***** Mean Square Error Average : 438.6032 *****
257.436052

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.21

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
362	335.44473944	26.56
250	269.19525694	-19.2
315	303.32337081	11.68
153	167.25611814	-14.26
320	315.65913859	4.34
209	220.04598914	-11.05
303	291.03953657	11.96
271	269.70463694	1.3
209	220.38008172	-11.38
438	402.10705578	35.89
317	310.76141742	6.24
331	326.55243481	4.45
490	476.21575810	13.78
154	167.81091909	-13.81
353	337.62709932	15.37
260	248.16918294	11.83
251	268.78509222	-17.79
450	420.65715260	29.34
468	467.65934676	0.34
209	220.38008172	-11.38
489	475.63777218	13.36
322	319.79473095	2.21
444	433.78165544	10.22
333	324.69844928	8.3
307	301.70560054	5.29
481	476.60828031	4.39
164	168.45157755	-4.45
457	448.49164753	8.51
416	395.20020679	20.8
475	469.99557423	5.0
252	268.69404763	-16.69

Mean Square Error = 208.773126

Desired Output	Predict	Error
310	299.04696607	10.95
328	252.97814015	75.02
156	164.35203774	-8.35
259	266.73425351	-7.73
209	220.21258384	-11.21
471	462.31281589	8.69
314	298.96656115	15.03
294	279.03319718	14.97
178	165.65241851	12.35
305	292.92431718	12.08
333	322.69753134	10.3
240	236.54832716	3.45
448	441.54651820	6.45
248	246.44194955	1.56
207	171.83436036	35.17
236	226.41480386	9.59

490	476.15741341	13.84
357	343.03505362	13.96
361	343.24146219	17.76
368	351.61394857	16.39
232	223.89651051	8.1
333	318.03936358	14.96
322	314.55845184	7.44
457	439.01893649	17.98
307	295.99288260	11.01
156	164.29907757	-8.3
470	475.75135487	-5.75
390	371.88971182	18.11
360	344.49733656	15.5
490	476.41158401	13.59
469	459.69823830	9.3

Mean Square Error = 355.452584

Desired Output	Predict	Error
381	409.38036345	-28.38
291	312.61969467	-21.62
351	377.67011161	-26.67
246	260.11234451	-14.11
490	480.14841334	9.85
246	195.12137084	50.88
465	467.32425851	-2.32
376	405.74000493	-29.74
303	326.54609172	-23.55
245	256.86184714	-11.86
317	339.15526908	-22.16
309	332.97336357	-23.97
360	300.24530381	59.75
390	384.22739432	5.77
288	298.04437427	-10.04
253	285.17403770	-32.17
232	240.41111733	-8.41
297	296.42305820	0.58
300	312.94419856	-12.94
235	244.26756581	-9.27
160	163.86222373	-3.86
393	423.02520303	-30.03
456	473.02941280	-17.03
470	473.24409837	-3.24
335	358.78444156	-23.78
322	326.90335472	-4.9
242	243.35702045	-1.36
253	285.38599833	-32.39
265	287.66673568	-22.67
475	480.16677387	-5.17
153	162.92787349	-9.93

Mean Square Error = 518.716581

Desired Output	Predict	Error
268	287.15244595	-19.15
224	179.34562422	44.65
252	284.92067316	-32.92
305	321.05006719	-16.05
398	371.80653981	26.19

447	466.99466376	-19.99
288	261.58294479	26.42
288	306.21884322	-18.22
454	452.03273786	1.97
300	263.51911396	36.48
471	474.34743125	-3.35
451	469.61789780	-18.62
437	452.78324452	-15.78
370	324.84429519	45.16
302	313.87348804	-11.87
427	439.31660003	-12.32
216	230.59353098	-14.59
208	234.84119265	-26.84
380	346.93745375	33.06
192	168.83797888	23.16
390	414.41060815	-24.41
420	424.54391737	-4.54
330	338.04003496	-8.04
344	368.78649865	-24.79
467	472.08261692	-5.08
213	238.55832720	-25.56
397	423.54019718	-26.54
214	236.81406478	-22.81
466	468.47849372	-2.48
230	242.74866932	-12.75
230	236.14988801	-6.15

Mean Square Error = 518.047026

Desired Output	Predict	Error
345	372.40906919	-27.41
440	458.82382788	-18.82
327	334.10987724	-7.11
444	460.24917182	-16.25
172	167.69156883	4.31
465	476.31162144	-11.31
256	286.88448323	-30.88
468	473.14727505	-5.15
390	362.92273034	27.08
465	471.43317598	-6.43
259	208.73621860	50.26
470	477.67880674	-7.68
450	464.65113096	-14.65
215	228.51816054	-13.52
234	247.64566907	-13.65
306	323.58337932	-17.58
247	267.21078316	-20.21
337	365.46341021	-28.46
328	355.56046007	-27.56
296	324.92908805	-28.93
485	480.59665289	4.4
156	167.00875613	-11.01
404	426.45286561	-22.45
270	230.90857130	39.09
240	243.00428451	-3.0
231	239.71252750	-8.71
288	308.92950934	-20.93
350	285.55605632	64.44
231	241.87714269	-10.88
245	252.48610631	-7.49

488		480.09489911		7.91
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Mean Square Error = 538.684755

Desired Output	Predict	Error
490	482.59823857	7.4
431	451.36684604	-20.37
209	238.60207604	-29.6
243	245.44915559	-2.45
325	352.60748195	-27.61
470	474.28088147	-4.28
153	168.97164671	-15.97
214	237.85661584	-23.86
293	318.35323041	-25.35
447	462.28714776	-15.29
311	332.89868658	-21.9
483	482.20282261	0.8
427	446.43007834	-19.43
459	469.23965669	-10.24
433	424.10476787	8.9
294	320.53462835	-26.53
405	388.26751275	16.73
340	341.22716436	-1.23
211	241.13217548	-30.13
294	314.58144572	-20.58
247	265.20695700	-18.21
156	169.83351614	-13.83
468	479.40485657	-11.4
313	340.49745566	-27.5
435	450.67106251	-15.67
445	441.57197245	3.43
250	259.93905270	-9.94
165	170.43024549	-5.43
424	434.45630853	-10.46
308	332.58032661	-24.58
217	227.68674253	-10.69

Mean Square Error = 316.588029

Desired Output	Predict	Error
305	328.69756036	-23.7
210	241.59311051	-31.59
341	368.71931993	-27.72
270	263.13086838	6.87
215	234.62999162	-19.63
327	347.73763247	-20.74
246	262.19393368	-16.19
239	260.19400038	-21.19
298	327.03986207	-29.04
328	359.03982734	-31.04
319	347.03040291	-28.03
208	235.64372478	-27.64
210	240.84735230	-30.85
290	309.18820312	-19.19
478	479.44031039	-1.44
153	164.33446689	-11.33
467	470.29014489	-3.29
236	251.62068553	-15.62
237	189.32502270	47.67

286	295.45458875	-9.45
349	375.04552584	-26.05
460	475.71277211	-15.71
430	444.72383577	-14.72
464	476.82725228	-12.83
315	325.63667028	-10.64
412	398.31599519	13.68
329	352.98009288	-23.98
238	259.75611362	-21.76
234	245.25140401	-11.25
436	453.51890417	-17.52
486	480.86287069	5.14

Mean Square Error = 465.831006

Desired Output	Predict	Error
280	254.67859418	25.32
471	473.65275879	-2.65
230	241.13064511	-11.13
490	479.98058008	10.02
314	265.53519731	48.46
213	235.95346150	-22.95
370	392.34846896	-22.35
486	479.61882679	6.38
221	223.85368185	-2.85
478	480.07673078	-2.08
365	390.53634860	-25.54
328	355.89178685	-27.89
153	168.14228782	-15.14
484	478.27358104	5.73
396	421.24501950	-25.25
284	294.54172941	-10.54
188	171.38620073	16.61
470	473.36862819	-3.37
168	170.00838887	-2.01
490	479.94079378	10.06
422	441.61236743	-19.61
481	477.90381918	3.1
323	342.55699463	-19.56
153	167.94853447	-14.95
308	326.65376708	-18.65
292	300.83542676	-8.84
290	278.10747155	11.89
410	400.49141285	9.51
382	409.56126632	-27.56
303	305.18686871	-2.19
339	361.77645866	-22.78

Mean Square Error = 324.993926

Desired Output	Predict	Error
291	312.05567899	-21.06
296	311.53234657	-15.53
319	342.01748022	-23.02
401	424.51560874	-23.52
215	234.26644924	-19.27
153	166.74662703	-13.75
469	473.47022827	-4.47
377	393.16446237	-16.16

215	235.55497327	-20.55
153	166.09158925	-13.09
274	292.42146039	-18.42
428	413.90082094	14.1
153	166.30767853	-13.31
460	462.18542646	-2.19
470	473.06344462	-3.06
232	247.64652524	-15.65
315	342.58263026	-27.58
218	230.73147601	-12.73
326	325.14361124	0.86
433	446.83153418	-13.83
294	322.42206370	-28.42
233	244.77532297	-11.78
211	241.27996893	-30.28
374	391.92019305	-17.92
212	240.11907211	-28.12
315	336.09426361	-21.09
488	482.40960188	5.59
262	289.99154699	-27.99
412	429.99413937	-17.99
410	427.25663381	-17.26
255	264.54299807	-9.54

Mean Square Error = 330.299674

Desired Output	Predict	Error
238	240.52035777	-2.52
240	242.87875613	-2.88
385	410.28239339	-25.28
244	247.19267540	-3.19
340	281.41078525	58.59
247	264.90639587	-17.91
280	291.98306723	-11.98
276	290.39710686	-14.4
441	456.06377643	-15.06
208	236.81539490	-28.82
325	353.33510689	-28.34
241	237.87212293	3.13
405	414.17310621	-9.17
209	236.00208037	-27.0
155	169.16361938	-14.16
311	336.47008845	-25.47
472	481.46325743	-9.46
214	234.17813073	-20.18
300	327.69894744	-27.7
455	465.30467316	-10.3
420	409.13056747	10.87
235	241.09616555	-6.1
471	474.09768709	-3.1
245	250.27749546	-5.28
234	239.31745141	-5.32
290	310.73864254	-20.74
308	319.00072041	-11.0
489	480.99170835	8.01
413	407.28752338	5.71
249	274.18896825	-25.19
490	481.33477903	8.67

Mean Square Error = 362.8993

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***** Mean Square Error Average : 394.0286 *****

208.773126

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.22

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
357	342.78203387	14.22
450	422.37256845	27.63
286	272.87289147	13.13
465	455.86364162	9.14
209	219.78579981	-10.79
245	232.80046322	12.2
280	242.77632123	37.22
350	269.55544595	80.44
236	225.88859909	10.11
192	170.97651390	21.02
232	226.04707448	5.95
245	233.42570498	11.57
307	297.04089369	9.96
211	222.83003814	-11.83
305	293.70770061	11.29
481	473.28009218	7.72
292	276.51199762	15.49
240	226.19057166	13.81
435	435.65022498	-0.65
361	343.27712850	17.72
153	166.92525368	-13.93
478	478.88003447	-0.88
455	445.37382846	9.63
210	221.61712090	-11.62
447	437.45176194	9.55
376	357.97811268	18.02
172	168.49311339	3.51
168	168.43518351	-0.44
164	168.03330203	-4.03
404	382.43898370	21.56
294	289.89448034	4.11

Mean Square Error = 405.688442

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Desired Output	Predict	Error
300	330.94035856	-30.94
296	313.19501127	-17.2
153	160.09834521	-7.1
438	435.98225475	2.02
308	320.58020315	-12.58
341	375.47941159	-34.48
450	465.75870460	-15.76
368	404.77175706	-36.77
306	327.06302678	-21.06
454	455.28566051	-1.29

441	460.03486042	-19.03
422	446.40692083	-24.41
230	248.82727170	-18.83
319	351.97622170	-32.98
303	309.25080993	-6.25
390	423.23338611	-33.23
353	386.82428365	-33.82
457	459.74539636	-2.75
303	321.67384204	-18.67
242	248.79624250	-6.8
288	310.67185539	-22.67
302	317.31802555	-15.32
215	236.48955276	-21.49
209	242.50178056	-33.5
349	382.39433175	-33.39
153	160.43328244	-7.43
465	467.03100927	-2.03
288	309.79787095	-21.8
397	431.29509974	-34.3
309	338.12213101	-29.12
327	354.23849679	-27.24

Mean Square Error = 533.505735

Desired Output	Predict	Error
340	338.05000128	1.95
246	262.09453339	-16.09
488	479.71345913	8.29
251	289.78515527	-38.79
246	193.67243216	52.33
232	238.00252081	-6.0
153	167.57543102	-14.58
293	318.24578676	-25.25
209	235.34975527	-26.35
296	324.84764258	-28.85
460	474.75440775	-14.75
483	479.98091515	3.02
467	470.70879869	-3.71
333	346.61455664	-13.61
262	290.95045495	-28.95
328	358.19200196	-30.19
460	463.78142079	-3.78
333	351.69702997	-18.7
488	479.23908349	8.76
382	409.56492185	-27.56
490	480.18360416	9.82
398	373.59171290	24.41
259	290.79196005	-31.79
271	291.99971657	-21.0
244	250.11510939	-6.12
469	471.76810854	-2.77
305	322.54128608	-17.54
247	270.00330544	-23.0
490	480.01299045	9.99
239	259.40300930	-20.4
362	359.11199738	2.89

Mean Square Error = 448.798535

Desired Output	Predict	Error
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303	327.15515907	-24.16
317	340.54739939	-23.55
154	168.82536030	-14.83
356	383.70865640	-27.71
345	372.16269055	-27.16
405	419.41923296	-14.42
310	328.41307777	-18.41
416	438.28677373	-22.29
412	437.05433594	-25.05
216	227.54290737	-11.54
385	414.95212206	-29.95
153	168.25786908	-15.26
288	299.29595992	-11.3
428	421.73958122	6.26
188	171.30611251	16.69
252	288.12596172	-36.13
235	243.97342708	-8.97
240	243.74626938	-3.75
215	230.16010495	-15.16
490	479.39339935	10.61
235	241.60609566	-6.61
270	265.24072672	4.76
328	356.53387438	-28.53
489	479.13202544	9.87
238	241.28299718	-3.28
250	288.28191701	-38.28
294	321.00720609	-27.01
490	478.99282072	11.01
252	288.39633548	-36.4
298	325.68283922	-27.68
427	447.59586988	-20.6

Mean Square Error = 445.349616

Desired Output	Predict	Error
465	471.91313569	-6.91
468	461.56899435	6.43
417	373.67155916	43.33
457	449.79300326	7.21
489	478.27987756	10.72
325	323.12713172	1.87
214	219.74527356	-5.75
433	392.61262864	40.39
413	363.83569334	49.16
276	267.39250933	8.61
328	251.86756976	76.13
165	164.60843329	0.39
207	169.72622129	37.27
437	423.85794618	13.14
224	172.81733498	51.18
471	463.73004499	7.27
294	278.06129553	15.94
209	219.31175445	-10.31
444	433.66434107	10.34
393	379.75984001	13.24
260	245.50114373	14.5
424	393.70423944	30.3
427	403.15035695	23.85
471	464.75710616	6.24

156	164.16024955	-8.16
280	268.52111459	11.48
325	319.49450967	5.51
360	344.53584813	15.46
270	230.40896675	39.59
153	163.94629002	-10.95
490	479.68965416	10.31

Mean Square Error = 676.197671

Desired Output	Predict	Error
448	441.72944795	6.27
420	383.16576153	36.83
328	322.09085676	5.91
445	414.74436249	30.26
468	466.80329633	1.2
322	316.37261435	5.63
377	349.54459503	27.46
470	460.32788015	9.67
308	296.07935091	11.92
230	225.09165929	4.91
315	298.53781262	16.46
215	216.57417247	-1.57
315	306.78239261	8.22
155	168.59982182	-13.6
330	309.78231435	20.22
248	248.94949171	-0.95
214	218.62301852	-4.62
253	267.04342037	-14.04
390	351.97493341	38.03
468	472.88845399	-4.89
156	168.63767898	-12.64
370	304.82610151	65.17
333	320.49199345	12.51
344	325.61161999	18.39
288	245.60174577	42.4
153	167.96408130	-14.96
255	247.15511766	7.84
486	472.30397764	13.7
314	299.32376492	14.68
478	469.85571446	8.14
323	306.21639859	16.78

Mean Square Error = 443.652339

Desired Output	Predict	Error
234	222.61928892	11.38
486	474.79077159	11.21
218	209.49373318	8.51
247	244.22839064	2.77
410	351.06833532	58.93
470	460.15408772	9.85
381	360.11140596	20.89
470	459.83918444	10.16
212	221.42213120	-9.42
335	315.56581584	19.43
490	475.22951514	14.77
237	179.68829691	57.31
231	222.89512089	8.1

307	298.68046290	8.32
433	415.63492221	17.37
230	216.89236727	13.11
470	474.44925532	-4.45
470	468.29512047	1.7
297	289.13473642	7.87
225	211.89762707	13.1
209	219.04493463	-10.04
250	242.75360460	7.25
305	298.20798557	6.79
213	220.90490382	-7.9
178	165.59514770	12.4
234	229.05964285	4.94
337	322.92365136	14.08
232	223.28022530	8.72
268	267.60037569	0.4
314	250.63166124	63.37
211	222.65641132	-11.66

Mean Square Error = 456.269574

Desired Output	Predict	Error
436	422.74761430	13.25
221	207.15082211	13.85
294	294.03967826	-0.04
405	356.67544954	48.32
291	287.28659311	3.71
320	314.67895572	5.32
231	224.60556977	6.39
315	305.71259013	9.29
290	272.28513632	17.71
459	450.36192775	8.64
471	462.47756751	8.52
401	386.60456247	14.4
234	225.86896467	8.13
246	243.85208117	2.15
444	432.11274604	11.89
243	225.36767701	17.63
374	349.40281853	24.6
290	285.70626536	4.29
485	477.15105935	7.85
308	302.26367531	5.74
153	167.74090112	-14.74
240	236.17991530	3.82
253	266.17347210	-13.17
430	409.43877245	20.56
490	477.66862654	12.33
431	417.11035105	13.89
484	473.60719087	10.39
462	453.22233790	8.78
351	333.00618872	17.99
245	236.75048011	8.25
300	287.31375557	12.69

Mean Square Error = 215.853584

Desired Output	Predict	Error
464	477.22194337	-13.22
300	263.13302670	36.87

208	233.38016550	-25.38
329	351.15130478	-22.15
208	235.93535836	-27.94
247	264.69019211	-17.69
360	303.40344845	56.6
313	338.65717963	-25.66
322	328.56878200	-6.57
290	310.44343078	-20.44
470	474.47582720	-4.48
156	168.85203787	-12.85
326	326.18440888	-0.18
315	334.42194588	-19.42
490	482.70554149	7.29
451	469.37758009	-18.38
322	348.88779494	-26.89
475	479.29395645	-4.29
160	169.00966782	-9.01
467	472.41292069	-5.41
447	469.93452331	-22.93
317	342.51802049	-25.52
249	273.50007390	-24.5
265	287.86719877	-22.87
214	234.83756800	-20.84
241	240.10536256	0.89
339	361.22686876	-22.23
210	238.30822741	-28.31
274	289.98820462	-15.99
440	456.71474121	-16.71
259	218.51881471	40.48

Mean Square Error = 519.204003

Desired Output	Predict	Error
410	385.81915142	24.18
390	328.20688362	61.79
370	342.58213576	27.42
284	273.23864192	10.76
208	220.27953882	-12.28
217	215.07317176	1.93
380	316.60923683	63.39
311	301.20526029	9.79
327	300.65921557	26.34
331	316.73711747	14.26
475	474.61037454	0.39
238	243.73168618	-5.73
420	366.04094116	53.96
365	341.20277807	23.8
256	266.93105592	-10.93
390	366.40860059	23.59
291	287.01250100	3.99
456	457.99813390	-2.0
396	373.05623148	22.94
209	222.05799317	-13.06
153	163.65470780	-10.65
469	458.30961888	10.69
472	474.36329905	-2.36
481	474.21016386	6.79
340	265.12869227	74.87
156	164.74051029	-8.74
466	451.50378097	14.5

233		227.23885395		5.76
412		357.26602113		54.73
215		219.86170142		-4.86
213		223.25830495		-10.26

Mean Square Error = 795.769826

***** Mean Square Error Average : 494.0289 *****
215.853584

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.23

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
311		297.46669815		13.53
294		292.62146525		1.38
396		376.86241733		19.14
300		283.82583709		16.17
211		225.78103886		-14.78
160		160.10997618		-0.11
230		220.31508215		9.68
353		337.84096529		15.16
209		222.21558003		-13.22
329		312.87256579		16.13
382		364.13108506		17.87
253		263.75498273		-10.75
296		280.65205294		15.35
308		292.59935268		15.4
459		448.38106540		10.62
221		211.24753950		9.75
265		264.90016757		0.1
284		269.14428839		14.86
246		240.69092592		5.31
488		475.12366967		12.88
288		282.60910848		5.39
209		222.01719327		-13.02
224		169.63749623		54.36
172		160.58785991		11.41
243		227.08626262		15.91
313		305.65164425		7.35
311		303.59375307		7.41
420		373.53211757		46.47
340		318.27209842		21.73
322		316.78050307		5.22
470		458.34258685		11.66

Mean Square Error = 314.86591

Desired Output		Predict		Error
390		373.99651417		16.0
252		268.09344498		-16.09
215		216.74520240		-1.75
247		247.68226309		-0.68

381	364.03131888	16.97
241	221.94051099	19.06
420	383.57701057	36.42
247	249.02560855	-2.03
483	477.03478107	5.97
156	166.29044026	-10.29
153	165.69432045	-12.69
349	334.68370027	14.32
351	331.92742718	19.07
417	374.24724359	42.75
233	222.76061054	10.24
235	224.55313525	10.45
307	301.46858650	5.53
305	300.84509288	4.15
259	203.68342678	55.32
244	230.30662463	13.69
188	168.19648281	19.8
470	463.10062919	6.9
238	224.17986981	13.82
164	166.66058452	-2.66
153	165.58280534	-12.58
307	297.47569327	9.52
489	476.33961220	12.66
168	167.12574855	0.87
471	463.19028084	7.81
296	298.75775516	-2.76
317	311.11823945	5.88

Mean Square Error = 318.047519

Desired Output	Predict	Error
401	385.68190533	15.32
319	305.77133544	13.23
484	474.69884406	9.3
451	451.46320594	-0.46
438	400.31470974	37.69
215	216.85179911	-1.85
490	478.69225476	11.31
290	282.63159514	7.37
344	329.23675049	14.76
208	217.94676172	-9.95
368	352.63768766	15.36
209	222.56702816	-13.57
410	389.90831622	20.09
465	447.65191516	17.35
424	394.35792233	29.64
213	222.13454314	-9.13
437	422.98621540	14.01
212	223.70106748	-11.7
339	323.05233940	15.95
436	423.72931410	12.27
259	264.63873160	-5.64
471	462.58554414	8.41
306	291.89485305	14.11
262	264.95300888	-2.95
428	380.50377962	47.5
490	478.38080029	11.62
447	454.19382144	-7.19
445	410.19228009	34.81
490	478.82727172	11.17

433		389.95342489		43.05
153		164.06278280		-11.06

Mean Square Error = 364.827084

Desired Output		Predict		Error
360		338.78494412		21.22
276		271.01335253		4.99
485		472.14732626		12.85
412		356.46601561		55.53
450		415.23812055		34.76
315		301.20044725		13.8
274		270.12430922		3.88
405		366.51884484		38.48
478		467.64824427		10.35
288		283.58238264		4.42
478		472.79409724		5.21
237		176.35780326		60.64
470		457.92343101		12.08
481		472.55413892		8.45
251		268.13997909		-17.14
288		244.61507354		43.38
270		245.46662284		24.53
234		222.21641445		11.78
340		265.50691333		74.49
235		224.30256976		10.7
153		160.91398886		-7.91
208		217.91984357		-9.92
246		185.58537345		60.41
416		392.55647357		23.44
468		464.45304340		3.55
468		456.39766570		11.6
268		269.20932534		-1.21
341		323.87069095		17.13
292		277.45974152		14.54
471		458.78869145		12.21
333		316.77898003		16.22

Mean Square Error = 795.853645

Desired Output		Predict		Error
298		327.25063848		-29.25
256		289.81247350		-33.81
252		290.42015622		-38.42
326		325.70517563		0.29
457		467.82078155		-10.82
433		449.82523723		-16.83
410		399.86562062		10.13
467		472.48506339		-5.49
245		255.20644283		-10.21
465		471.49964733		-6.5
239		264.17422817		-25.17
488		480.95677098		7.04
213		240.39330622		-27.39
253		289.27297198		-36.27
234		247.38202601		-13.38
211		242.50935782		-31.51
246		266.68306826		-20.68
333		359.91360308		-26.91

490	481.97309517	8.03
294	315.43410142	-21.43
216	229.47617513	-13.48
475	478.86535457	-3.87
303	328.73783104	-25.74
376	401.94307689	-25.94
178	169.30126459	8.7
460	463.35780837	-3.36
444	459.49497114	-15.49
377	393.99838913	-17.0
475	481.53637026	-6.54
231	246.14568124	-15.15
232	243.96659995	-11.97

Mean Square Error = 397.235516

Desired Output	Predict	Error
240	253.59703731	-13.6
328	352.01076699	-24.01
290	279.94956070	10.05
309	332.48611782	-23.49
489	481.03170925	7.97
470	480.38662109	-10.39
469	472.08215090	-3.08
232	239.44930569	-7.45
380	346.68758902	33.31
238	258.59347505	-20.59
325	352.59101869	-27.59
333	343.69043863	-10.69
412	426.06904235	-14.07
291	309.85255651	-18.85
207	175.69737051	31.3
404	424.98017472	-20.98
466	469.22750918	-3.23
302	313.62297865	-11.62
280	257.41590424	22.58
319	344.66261944	-25.66
490	481.52214080	8.48
398	371.88352301	26.12
236	251.88374443	-15.88
335	357.04616888	-22.05
397	425.73873267	-28.74
234	247.97027300	-13.97
390	378.56431616	11.44
153	167.46693893	-14.47
422	440.85363940	-18.85
441	457.24821562	-16.25
165	168.55944919	-3.56

Mean Square Error = 349.437529

Desired Output	Predict	Error
447	460.40456064	-13.4
305	324.63939217	-19.64
457	457.58127407	-0.58
214	237.78229428	-23.78
153	169.24839891	-16.25
328	270.47358696	57.53
455	464.92846437	-9.93

240	244.35622880	-4.36
209	237.48994872	-28.49
154	170.00570151	-16.01
315	343.86960571	-28.87
327	349.61966763	-22.62
286	297.68140074	-11.68
314	266.58401571	47.42
469	473.26818318	-4.27
315	327.01652779	-12.02
308	334.23743145	-26.24
250	258.62513738	-8.63
435	452.45310348	-17.45
209	237.19528189	-28.2
153	169.40847787	-16.41
345	372.82158430	-27.82
214	235.93488131	-21.93
310	331.04148757	-21.04
215	232.07551779	-17.08
156	170.11230116	-14.11
208	234.77452191	-26.77
308	330.21638188	-22.22
337	366.23809506	-29.24
460	475.53996200	-15.54
300	263.39880446	36.6

Mean Square Error = 572.588352

Desired Output	Predict	Error
427	448.73082152	-21.73
249	278.82048496	-29.82
325	353.53155830	-28.53
217	228.45763270	-11.46
294	306.56047635	-12.56
297	297.78812341	-0.79
468	479.60336508	-11.6
315	335.52575607	-20.53
248	271.51732530	-23.52
155	169.64937042	-14.65
405	390.49523052	14.5
215	233.77330852	-18.77
210	239.98661560	-29.99
370	323.76179969	46.24
288	300.81376562	-12.81
291	314.76238938	-23.76
330	338.34926673	-8.35
156	169.66419333	-13.66
209	237.90696897	-28.91
350	288.69900165	61.3
456	474.17490830	-18.17
247	269.02581827	-22.03
300	327.67112367	-27.67
472	481.15651612	-9.16
214	237.46928413	-23.47
236	246.54961126	-10.55
454	456.48428308	-2.48
245	252.39653721	-7.4
440	459.68021828	-19.68
464	476.56815537	-12.57
260	265.87095453	-5.87

Mean Square Error = 514.042003

Desired Output	Predict	Error
486	473.24058145	12.76
450	441.81980575	8.18
393	375.36401333	17.64
230	222.30964377	7.69
448	443.34160255	4.66
317	308.50078484	8.5
462	453.24201964	8.76
322	312.82106314	9.18
390	328.04376270	61.96
314	298.17248050	15.83
365	342.21739872	22.78
431	418.70907468	12.29
192	171.59393531	20.41
153	164.65801124	-11.66
356	333.59654605	22.4
470	467.66159682	2.34
240	225.48725937	14.51
210	223.11942395	-13.12
323	306.44860428	16.55
361	338.45554164	22.54
362	326.76352436	35.24
290	289.03299186	0.97
490	474.04890938	15.95
303	290.41983661	12.58
390	366.92873707	23.07
413	360.57181679	52.43
270	217.52807925	52.47
230	222.82496330	7.18
280	271.32811875	8.67
255	243.87774316	11.12
481	470.39323792	10.61

Mean Square Error = 512.633487

Desired Output	Predict	Error
465	466.29924504	-1.3
327	302.08805945	24.91
470	458.40651878	11.59
225	211.47216068	13.53
427	401.92339777	25.08
444	431.97911512	12.02
360	284.34793499	75.65
303	291.70308091	11.3
271	268.96736561	2.03
357	337.80602545	19.19
490	472.08759892	17.91
490	473.02726684	16.97
322	299.09449943	22.91
385	365.23606397	19.76
331	318.86377944	12.14
293	289.60143541	3.4
218	209.29795427	8.7
232	226.57516981	5.42
231	223.73959428	7.26
320	310.22553873	9.77
471	459.70836972	11.29

486	470.27687259	15.72
156	165.71414545	-9.71
374	345.37771369	28.62
245	238.20976195	6.79
294	291.06324652	2.94
370	344.78972767	25.21
305	291.57001002	13.43
467	454.91933425	12.08
328	316.73830207	11.26
242	224.87643005	17.12

Mean Square Error = 406.346474

***** Mean Square Error Average : 454.5878 *****
314.86591

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.24

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
156	168.10848122	-12.11
253	268.45740564	-15.46
333	320.48127742	12.52
490	473.88745904	16.11
320	312.09683751	7.9
471	460.55762787	10.44
255	246.01664455	8.98
490	473.92553402	16.07
302	292.78497088	9.22
253	267.77062188	-14.77
290	286.85257990	3.15
248	248.70293902	-0.7
230	217.30024499	12.7
290	269.57564692	20.42
465	447.35517757	17.64
396	375.95650639	20.04
380	319.57037519	60.43
153	167.04365571	-14.04
225	213.06426459	11.94
154	167.60325218	-13.6
160	168.15836999	-8.16
397	381.68737841	15.31
390	344.43720255	45.56
470	460.15710626	9.84
412	358.47009894	53.53
298	298.88089059	-0.88
333	319.77972990	13.22
208	218.94518885	-10.95
325	318.87921641	6.12
450	441.62746379	8.37
310	299.23921931	10.76

Mean Square Error = 417.773955

Desired Output	Predict	Error
356	334.27052467	21.73
245	233.35122430	11.65
262	269.76413984	-7.76
209	216.87394375	-7.87
300	299.29633491	0.7
431	417.66654310	13.33
328	322.14257730	5.86
232	221.01225057	10.99
259	269.83613775	-10.84
234	229.45947498	4.54
360	285.71134039	74.29
490	473.74872504	16.25
246	182.59008315	63.41
483	474.00404949	9.0
259	197.32439031	61.68
247	250.30645421	-3.31
490	474.06435707	15.94
238	221.89521203	16.1
478	474.54485977	3.46
300	287.60005662	12.4
328	318.59256671	9.41
455	444.82805159	10.17
468	466.04343638	1.96
450	417.12689080	32.87
241	221.20477960	19.8
210	220.12232332	-10.12
153	163.27289792	-10.27
239	241.66039951	-2.66
188	164.75296252	23.25
357	338.46034400	18.54
451	451.58564846	-0.59

Mean Square Error = 591.893055

Desired Output	Predict	Error
328	273.07422889	54.93
230	241.23170122	-11.23
213	235.82050747	-22.82
213	236.75953119	-23.76
488	479.71895829	8.28
280	260.34231493	19.66
234	240.92433347	-6.92
237	186.16529962	50.83
465	476.49815280	-11.5
315	340.51319769	-25.51
268	290.83824701	-22.84
420	412.40440731	7.6
288	308.09184291	-20.09
365	391.22185426	-26.22
345	371.85938109	-26.86
436	457.06870165	-21.07
472	480.11541895	-8.12
361	386.52180519	-25.52
306	322.34910810	-16.35
251	289.01928693	-38.02
156	169.51570535	-13.52
303	317.53659645	-14.54
404	428.78734583	-24.79

456	473.81523095	-17.82
303	307.07563138	-4.08
331	354.32839718	-23.33
246	261.84404799	-15.84
249	277.02448400	-28.02
211	238.53264789	-27.53
433	429.54927084	3.45
153	168.49393799	-15.49

Mean Square Error = 557.978865

Desired Output	Predict	Error
252	289.90518555	-37.91
427	444.61446094	-17.61
294	316.74823393	-22.75
192	171.68339140	20.32
470	473.97193266	-3.97
311	338.86112352	-27.86
172	169.56384734	2.44
401	425.54837163	-24.55
471	474.53927405	-3.54
444	459.52690539	-15.53
471	474.26064053	-3.26
390	414.50581176	-24.51
341	369.57816252	-28.58
370	392.08168353	-22.08
209	238.42596015	-29.43
305	324.34049447	-19.34
333	347.82136834	-14.82
232	248.25088863	-16.25
481	480.43641836	0.56
288	311.82554301	-23.83
288	266.85616613	21.14
382	408.95590620	-26.96
296	313.30481848	-17.3
284	299.14772694	-15.15
247	269.06662862	-22.07
460	462.15676857	-2.16
209	238.19856614	-29.2
218	228.26733421	-10.27
486	481.39383463	4.61
235	246.61767029	-11.62
164	169.21458834	-5.21

Mean Square Error = 383.085171

Desired Output	Predict	Error
385	417.09706125	-32.1
319	338.78221358	-19.78
215	232.49953045	-17.5
232	240.84960732	-8.85
209	236.15605910	-27.16
305	326.61262859	-21.61
339	363.04778312	-24.05
329	351.85089533	-22.85
447	468.28930209	-21.29
344	370.94207959	-26.94
393	425.67313582	-32.67
303	326.42492461	-23.42

280	291.99015682	-11.99
322	348.04173223	-26.04
416	441.07810039	-25.08
470	472.60079431	-2.6
349	376.77060178	-27.77
153	168.39447150	-15.39
337	365.26606344	-28.27
224	179.34721063	44.65
335	358.02615971	-23.03
307	322.69558930	-15.7
291	312.58196032	-21.58
216	226.80431562	-10.8
270	264.93205075	5.07
374	397.34310155	-23.34
271	288.97153749	-17.97
398	376.11068651	21.89
489	478.50816863	10.49
468	476.49802755	-8.5
330	339.40146447	-9.4

Mean Square Error = 489.262129

Desired Output	Predict	Error
481	473.65373184	7.35
208	220.63550152	-12.64
362	328.04057901	33.96
235	226.23768274	8.76
217	213.60417070	3.4
153	164.81657191	-11.82
325	314.61076420	10.39
210	224.28025274	-14.28
245	235.75742395	9.24
340	314.66192515	25.34
440	428.45307773	11.55
288	276.11494531	11.89
457	446.93715009	10.06
234	227.94181147	6.06
240	228.44079892	11.56
207	175.48256170	31.52
214	221.63741997	-7.64
212	224.68373268	-12.68
381	358.99378295	22.01
214	222.70913961	-8.71
211	225.60027926	-14.6
242	224.98693108	17.01
245	239.61852282	5.38
460	462.15183512	-2.15
230	225.26386127	4.74
178	167.29496279	10.71
215	218.34022871	-3.34
437	422.22772758	14.77
428	374.37409411	53.63
215	216.13705369	-1.14
265	269.39859375	-4.4

Mean Square Error = 282.359132

Desired Output	Predict	Error
322	314.98053794	7.02

327	310.56773126	16.43
340	263.63580611	76.36
240	224.93022534	15.07
315	304.54049434	10.46
488	476.04128694	11.96
231	224.25274406	6.75
308	301.10117431	6.9
291	285.03396379	5.97
467	458.05218969	8.95
457	437.82507200	19.17
209	217.81242922	-8.81
296	296.27156813	-0.27
270	228.45173976	41.55
412	408.01054024	3.99
435	439.08242901	-4.08
420	382.15788960	37.84
469	461.84616436	7.15
156	166.27960127	-10.28
297	284.21728044	12.78
410	388.23390090	21.77
490	478.21120178	11.79
328	325.11659024	2.88
238	239.48305669	-1.48
413	363.54708877	49.45
454	430.46088847	23.54
350	268.99022681	81.01
376	357.19606324	18.8
313	307.27575549	5.72
424	392.94725040	31.05
448	441.82169739	6.18

Mean Square Error = 721.568387

Desired Output	Predict	Error
286	299.42572299	-13.43
311	332.47851998	-21.48
471	472.95303724	-1.95
260	266.19100084	-6.19
466	469.86605362	-3.87
240	258.00698023	-18.01
231	244.10026323	-13.1
469	471.83650267	-2.84
153	166.88003646	-13.88
470	472.48256228	-2.48
422	446.49459959	-24.49
360	395.45066422	-35.45
294	321.49361348	-27.49
470	475.76723348	-5.77
489	478.08552817	10.91
244	252.68000866	-8.68
300	267.23280706	32.77
430	450.83515032	-20.84
468	472.20502610	-4.21
309	334.18694874	-25.19
290	311.17447997	-21.17
490	478.76726198	11.23
475	476.17646590	-1.18
236	255.57819884	-19.58
247	267.59706389	-20.6
246	267.04678047	-21.05

405	423.72818041	-18.73
405	396.00951415	8.99
444	461.72977702	-17.73
168	169.54918216	-1.55
221	225.34148467	-4.34

Mean Square Error = 290.183652

Desired Output	Predict	Error
317	339.16594657	-22.17
475	482.00908266	-7.01
447	461.42416892	-14.42
433	448.56359327	-15.56
156	171.31773715	-15.32
390	364.85782660	25.14
459	468.68123830	-9.68
485	481.73554069	3.26
315	325.11904374	-10.12
307	329.07113376	-22.07
390	413.93738797	-23.94
256	289.07178462	-33.07
438	433.62790951	4.37
209	238.12414031	-29.12
153	171.16640697	-18.17
165	171.68664091	-6.69
445	441.94474075	3.06
317	342.77872506	-25.78
294	306.62537958	-12.63
368	393.74331418	-25.74
353	377.66944594	-24.67
351	374.27284687	-23.27
323	342.86829443	-19.87
427	439.28286518	-12.28
233	243.02100549	-10.02
464	476.87550785	-12.88
153	170.97179595	-17.97
417	415.95414940	1.05
243	246.72572280	-3.73
155	171.33966102	-16.34
319	345.50352690	-26.5

Mean Square Error = 329.845335

Desired Output	Predict	Error
208	236.81484744	-28.81
250	286.97127272	-36.97
314	316.63697966	-2.64
490	482.04254444	7.96
478	479.43934355	-1.44
305	322.57806028	-17.58
314	267.55221499	46.45
153	168.37212605	-15.37
250	259.13730338	-9.14
276	291.88785639	-15.89
327	333.19178700	-6.19
252	287.09240730	-35.09
236	244.36202945	-8.36
470	481.08770108	-11.09
294	319.51030179	-25.51

370	328.63764898	41.36
326	325.05315862	0.95
322	328.86432309	-6.86
465	471.23204864	-6.23
467	472.24982248	-5.25
308	327.57709436	-19.58
215	231.29914162	-16.3
484	480.35626184	3.64
462	470.17885945	-8.18
377	395.03926172	-18.04
441	456.99498463	-15.99
214	234.61513384	-20.62
410	401.37327143	8.63
490	481.79300250	8.21
486	481.71871571	4.28
274	290.76798648	-16.77

Mean Square Error = 368.495006

***** Mean Square Error Average : 443.2445 *****
282.359132

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.25

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
325	317.92388111	7.08
427	410.96020829	16.04
390	373.33381395	16.67
297	284.53675563	12.46
153	166.90572453	-13.91
292	276.51267558	15.49
390	335.51219177	54.49
330	309.74490649	20.26
310	298.70215823	11.3
441	429.99222643	11.01
468	469.78833794	-1.79
284	271.77021070	12.23
153	167.00599989	-14.01
231	226.63732115	4.36
172	167.80152882	4.2
376	358.56836191	17.43
404	382.81148835	21.19
360	344.95403627	15.05
245	234.15746856	10.84
370	304.64409592	65.36
433	389.85592278	43.14
471	463.39666645	7.6
424	393.66686559	30.33
314	295.05537465	18.94
243	227.12872874	15.87
209	219.21528126	-10.22
413	364.84483640	48.16
209	219.29772902	-10.3

412	364.23001460	47.77
467	458.19079736	8.81
208	216.76309204	-8.76

Mean Square Error = 612.017403

Desired Output	Predict	Error
218	227.21028506	-9.21
448	465.79161474	-17.79
481	482.21079171	-1.21
390	413.57767606	-23.58
456	474.94380303	-18.94
444	459.84199621	-15.84
309	335.22554698	-26.23
210	239.37285352	-29.37
447	462.46104193	-15.46
412	427.97797238	-15.98
164	166.97779586	-2.98
247	267.84736426	-20.85
213	238.74332521	-25.74
444	461.77759023	-17.78
212	239.53486414	-27.53
478	480.02666693	-2.03
457	468.31555430	-11.32
240	245.47852897	-5.48
214	236.06720919	-22.07
168	167.49409406	0.51
246	202.00277722	44.0
417	417.35763731	-0.36
241	242.67860903	-1.68
326	326.01737204	-0.02
274	292.92138676	-18.92
262	290.79190133	-28.79
252	288.51767375	-36.52
307	330.41790218	-23.42
349	374.31748663	-25.32
270	265.93282636	4.07
308	320.24390782	-12.24

Mean Square Error = 395.441703

Desired Output	Predict	Error
239	261.49566106	-22.5
489	478.82023115	10.18
280	258.88120374	21.12
250	259.73648066	-9.74
484	477.92617293	6.07
303	319.21341488	-16.21
490	479.50763796	10.49
211	239.73242278	-28.73
465	467.89869543	-2.9
234	242.94692632	-8.95
209	236.12861979	-27.13
291	312.73718509	-21.74
427	443.96468216	-16.96
308	332.23198284	-24.23
216	228.91693079	-12.92
300	315.51277469	-15.51
475	476.78124905	-1.78

469	472.88699635	-3.89
260	265.57191583	-5.57
211	239.63591046	-28.64
450	464.79045116	-14.79
333	353.71041932	-20.71
468	472.43503310	-4.44
445	447.41325984	-2.41
303	308.86483497	-5.86
335	359.18455284	-24.18
317	344.26048344	-27.26
470	473.10082827	-3.1
322	351.06357117	-29.06
420	429.58978046	-9.59
294	307.15900405	-13.16

Mean Square Error = 289.979877

Desired Output	Predict	Error
303	327.78519254	-24.79
393	425.17928121	-32.18
356	385.16420404	-29.16
490	479.85923683	10.14
315	334.50261557	-19.5
298	326.06084012	-28.06
362	361.17345132	0.83
462	470.58250002	-8.58
437	456.60762507	-19.61
401	431.03612582	-30.04
153	169.35874527	-16.36
475	480.01542294	-5.02
486	479.58722867	6.41
313	339.63980683	-26.64
317	339.92974303	-22.93
467	472.21781365	-5.22
328	359.53304585	-31.53
154	169.86368780	-15.86
380	349.70605630	30.29
490	479.90768131	10.09
468	478.87241897	-10.87
464	475.73582737	-11.74
238	261.10745312	-23.11
234	249.18897046	-15.19
240	244.76534482	-4.77
377	398.89073140	-21.89
192	175.09237451	16.91
361	388.20674754	-27.21
156	170.09624023	-14.1
245	254.30275966	-9.3
300	266.34499276	33.66

Mean Square Error = 418.099145

Desired Output	Predict	Error
459	469.45893979	-10.46
357	383.72520713	-26.73
433	451.13834713	-18.14
470	474.05368765	-4.05
430	447.34702823	-17.35
385	412.54918977	-27.55

465	475.38184332	-10.38
333	359.42534720	-26.43
238	239.58281742	-1.58
244	247.76477518	-3.76
396	421.65504428	-25.66
234	243.21229731	-9.21
237	185.76404482	51.24
451	470.05102783	-19.05
214	235.02906805	-21.03
486	480.25310398	5.75
214	232.82190358	-18.82
328	271.87161624	56.13
485	481.01002542	3.99
236	251.27835497	-15.28
235	240.08297854	-5.08
322	349.13201854	-27.13
350	290.00197524	60.0
236	242.56609297	-6.57
271	289.73582891	-18.74
153	168.80324658	-15.8
156	169.51395440	-13.51
232	239.91245726	-7.91
155	169.46626467	-14.47
280	293.40168533	-13.4
370	391.44608967	-21.45

Mean Square Error = 552.047526

Desired Output	Predict	Error
230	223.81406729	6.19
294	290.66985747	3.33
302	292.37796884	9.62
153	165.05299115	-12.05
291	290.00018249	1.0
288	277.01630612	10.98
314	251.14021619	62.86
224	178.09432740	45.91
329	312.16835683	16.83
178	167.24422507	10.76
305	294.19054581	10.81
490	472.72764961	17.27
276	271.79296595	4.21
365	344.74650674	20.25
450	419.42223187	30.58
340	315.81511802	24.18
390	346.41637190	43.58
293	292.13508479	0.86
397	387.53033409	9.47
252	269.62735562	-17.63
470	472.24726637	-2.25
470	458.49487598	11.51
466	452.36523233	13.63
249	257.73575494	-8.74
481	469.37827596	11.62
306	293.49312640	12.51
215	213.15178027	1.85
420	369.86656390	50.13
268	270.08847420	-2.09
208	217.41451756	-9.41
215	215.97693668	-0.98

Mean Square Error = 478.437171

Desired Output	Predict	Error
431	421.35673285	9.64
230	217.41539178	12.58
209	220.92978238	-11.93
315	301.51112625	13.49
483	477.29911816	5.7
255	246.66546176	8.33
374	352.18509608	21.81
188	167.50325782	20.5
405	355.68909785	49.31
265	265.31874012	-0.32
435	429.50500634	5.49
460	465.68026780	-5.68
490	477.97764319	12.02
207	172.21880381	34.78
305	299.09923190	5.9
245	236.15590201	8.84
490	477.64283433	12.36
339	322.54189038	16.46
360	285.01916414	74.98
288	244.14852924	43.85
311	299.15978483	11.84
489	477.26332278	11.74
344	328.57095326	15.43
247	247.68273334	-0.68
322	303.74786266	18.25
471	463.02423026	7.98
470	470.60961236	-0.61
328	324.76361872	3.24
368	352.57893417	15.42
232	225.58163530	6.42
210	223.79282004	-13.79

Mean Square Error = 480.523081

Desired Output	Predict	Error
153	166.49663700	-13.5
233	222.34925373	10.65
428	381.39137778	46.61
319	306.41121755	12.59
248	245.14772772	2.85
472	477.12424897	-5.12
315	300.14038172	14.86
337	327.07567047	9.92
225	212.85127031	12.15
288	284.75645245	3.24
242	223.19181554	18.81
290	287.14946683	2.85
470	462.25093676	7.75
457	435.80468748	21.2
256	264.60787638	-8.61
319	312.78795084	6.21
398	345.33268923	52.67
320	314.72755845	5.27
290	284.66795453	5.33
221	209.61658817	11.38

460	442.86284302	17.14
253	264.29724413	-11.3
340	265.51343651	74.49
305	293.10913461	11.89
209	221.17703731	-12.18
488	475.81197851	12.19
478	477.65056841	0.35
153	166.59865348	-13.6
410	390.35573696	19.64
471	462.74558899	8.25
240	236.44302787	3.56

Mean Square Error = 456.206665

Desired Output	Predict	Error
251	287.30195442	-36.3
382	405.24772464	-23.25
327	335.93427183	-8.93
323	344.48108063	-21.48
345	370.90693446	-25.91
422	436.18199457	-14.18
315	342.86436247	-27.86
235	244.89502912	-9.9
490	482.82387744	7.18
465	470.11366351	-5.11
153	169.97567834	-16.98
160	170.39263570	-10.39
488	482.40172646	5.6
331	357.53114984	-26.53
296	326.59098139	-30.59
405	411.42441426	-6.42
381	403.60668117	-22.61
156	170.36899474	-14.37
296	312.13631811	-16.14
469	471.59326765	-2.59
325	356.14955631	-31.15
471	474.15453697	-3.15
410	397.56149521	12.44
307	327.68642311	-20.69
294	323.94514005	-29.95
416	431.34918858	-15.35
341	368.32350242	-27.32
288	309.79384333	-21.79
246	264.00704215	-18.01
290	287.28062512	2.72
308	329.62103068	-21.62

Mean Square Error = 388.163423

Desired Output	Predict	Error
208	236.03841751	-28.04
333	351.65155172	-18.65
328	357.77183588	-29.77
246	257.41042312	-11.41
351	373.64740160	-22.65
209	239.13530420	-30.14
250	285.35696997	-35.36
286	295.69762226	-9.7
232	247.19454061	-15.19

247	260.19301040	-13.19
455	462.46224168	-7.46
440	453.11916268	-13.12
490	483.37433493	6.63
165	170.91153489	-5.91
213	239.41656707	-26.42
353	377.96629580	-24.97
436	449.17870283	-13.18
215	235.64619564	-20.65
259	287.10883813	-28.11
438	425.02239417	12.98
215	234.91297007	-19.91
156	169.90138948	-13.9
217	232.16446256	-15.16
327	347.97584537	-20.98
259	243.40638759	15.59
231	244.22267129	-13.22
447	460.01374458	-13.01
230	244.90094114	-14.9
294	320.97345843	-26.97
270	261.52821427	8.47
300	330.02204504	-30.02

Mean Square Error = 396.034439

***** Mean Square Error Average : 446.695 *****
289.979877

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.26

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
340	260.41377813	79.59
234	228.31228625	5.69
319	311.78806862	7.21
370	301.80804637	68.19
365	342.77031927	22.23
307	296.15176794	10.85
305	300.55701795	4.44
360	280.56270791	79.44
448	443.85037969	4.15
410	348.95057281	61.05
466	454.45211312	11.55
382	359.43885418	22.56
462	454.85386863	7.15
290	286.58037809	3.42
237	187.37530621	49.62
230	216.72431693	13.28
468	468.25997605	-0.26
153	164.89441895	-11.89
288	286.28877284	1.71
490	475.67833672	14.32
478	471.34135242	6.66
335	316.38580322	18.61

297	279.75355549	17.25
447	458.81199263	-11.81
244	228.94022506	15.06
470	461.98343322	8.02
385	365.69392167	19.31
333	321.24509816	11.75
404	379.08307687	24.92
153	165.08382204	-12.08
397	380.54132570	16.46

Mean Square Error = 906.974494

Desired Output	Predict	Error
377	397.16863890	-20.17
311	335.31209912	-24.31
188	172.15257399	15.85
328	273.56949634	54.43
398	369.22802939	28.77
246	262.28658291	-16.29
454	454.06348149	-0.06
431	454.23826778	-23.24
401	428.80125760	-27.8
213	238.90462338	-25.9
341	367.29265918	-26.29
486	479.56058027	6.44
471	473.52903527	-2.53
247	268.91662844	-21.92
412	395.77338107	16.23
428	413.73376964	14.27
451	470.55769812	-19.56
331	349.94113358	-18.94
156	168.62562998	-12.63
215	232.38300897	-17.38
247	268.38531394	-21.39
333	343.28221829	-10.28
470	477.28815770	-7.29
465	471.49358082	-6.49
438	433.39780275	4.6
315	332.62145294	-17.62
250	290.96739129	-40.97
456	473.95800250	-17.96
302	315.38997826	-13.39
290	311.36807179	-21.37
212	239.49641614	-27.5

Mean Square Error = 469.721629

Desired Output	Predict	Error
209	236.65220652	-27.65
307	328.52191714	-21.52
233	242.47077275	-9.47
319	339.54355522	-20.54
291	314.35247771	-23.35
427	441.39293657	-14.39
216	227.55321250	-11.55
457	457.71177815	-0.71
172	171.07457499	0.93
405	413.73523885	-8.74
235	244.56017754	-9.56

362	354.37566430	7.62
225	227.36254478	-2.36
329	351.52960940	-22.53
303	308.02150198	-5.02
288	308.64040426	-20.64
433	450.66871870	-17.67
156	170.74079034	-14.74
422	441.84007699	-19.84
317	337.60101270	-20.6
208	236.81145940	-28.81
361	383.67001830	-22.67
252	289.83403894	-37.83
153	170.49324737	-17.49
380	343.37800947	36.62
208	234.08505338	-26.09
155	170.74503021	-15.75
209	236.73364893	-27.73
445	439.31293129	5.69
405	381.91475396	23.09
259	216.30335193	42.7

Mean Square Error = 441.047606

Desired Output	Predict	Error
208	234.88190440	-26.88
460	475.86050691	-15.86
271	295.27831619	-24.28
209	237.49058801	-28.49
234	244.63556954	-10.64
308	330.32165532	-22.32
308	321.73828293	-13.74
455	466.00466816	-11.0
469	472.56665928	-3.57
292	306.31278894	-14.31
427	445.03161828	-18.03
330	340.34701914	-10.35
469	473.89439093	-4.89
260	268.05255737	-8.05
481	479.98482356	1.02
296	327.03347381	-31.03
412	430.55081893	-18.55
207	173.84731476	33.15
268	294.55263061	-26.55
322	350.73460216	-28.73
262	294.00747612	-32.01
311	334.20107782	-23.2
327	348.43930698	-21.44
276	297.15987752	-21.16
322	330.44544005	-8.45
470	473.51504094	-3.52
468	473.33084790	-5.33
250	263.07216966	-13.07
433	425.39003742	7.61
256	291.65929282	-35.66
320	346.78297688	-26.78

Mean Square Error = 412.005642

Desired Output	Predict	Error

314	267.36342574	46.64
444	458.45260233	-14.45
390	413.33492351	-23.33
470	482.64505823	-12.65
253	286.83241985	-33.83
485	482.75476064	2.25
215	230.64488844	-15.64
470	474.05210963	-4.05
328	354.84285559	-26.84
240	243.05179104	-3.05
270	237.78746979	32.21
460	463.39705686	-3.4
300	328.11047505	-28.11
210	237.90520552	-27.91
322	349.71255052	-27.71
440	455.85224814	-15.85
430	443.48546748	-13.49
490	482.58405642	7.42
356	380.88958699	-24.89
350	288.77827868	61.22
390	368.69859895	21.3
214	234.59498219	-20.59
280	295.12958999	-15.13
245	257.33624708	-12.34
215	229.57228043	-14.57
274	292.18471064	-18.18
340	342.45758737	-2.46
303	328.14828278	-25.15
255	262.46154626	-7.46
303	318.82193782	-15.82
232	239.72443475	-7.72

Mean Square Error = 525.033787

Desired Output	Predict	Error
156	170.64700800	-14.65
245	253.08587979	-8.09
296	311.27688399	-15.28
153	169.74148589	-16.74
410	430.76859888	-20.77
291	312.60865048	-21.61
368	395.39934814	-27.4
488	480.88050654	7.12
305	321.76006679	-16.76
450	448.31136625	1.69
164	171.17542200	-7.18
153	170.11052868	-17.11
490	481.36797364	8.63
328	354.56604137	-26.57
465	476.09259079	-11.09
475	478.42155977	-3.42
221	225.40775497	-4.41
467	472.24906355	-5.25
213	237.86919688	-24.87
230	243.29398132	-13.29
284	297.26271620	-13.26
270	265.23029713	4.77
470	474.02773912	-4.03
393	420.26997006	-27.27
246	265.17302936	-19.17

243	246.15319159	-3.15
245	254.01669361	-9.02
209	236.46181614	-27.46
490	481.40272594	8.6
209	237.87295058	-28.87
211	240.60999608	-29.61

Mean Square Error = 284.981897

Desired Output	Predict	Error
165	168.17596969	-3.18
471	462.43308787	8.57
313	308.60300760	4.4
153	166.66297661	-13.66
315	309.52485467	5.48
280	242.92315834	37.08
178	168.97876458	9.02
360	343.39912813	16.6
300	287.27560530	12.72
490	476.41238115	13.59
450	444.14681877	5.85
238	239.26543952	-1.27
325	322.77783549	2.22
236	232.24816304	3.75
251	268.57812101	-17.58
339	321.67822085	17.32
374	350.28611815	23.71
214	218.44182400	-4.44
489	476.09282263	12.91
315	302.16091339	12.84
475	476.45059290	-1.45
209	219.99475240	-10.99
314	302.22261543	11.78
232	222.23298002	9.77
288	243.08534795	44.91
396	377.73734985	18.26
436	427.13241687	8.87
337	326.23097056	10.77
471	463.50579380	7.49
214	220.40087063	-6.4
465	450.12243186	14.88

Mean Square Error = 232.120548

Desired Output	Predict	Error
238	242.00897301	-4.01
298	327.18871539	-29.19
236	244.46592709	-8.47
293	318.22925679	-25.23
168	169.37342001	-1.37
357	383.16594016	-26.17
192	172.37921376	19.62
239	261.00659122	-22.01
351	374.66210801	-23.66
317	343.83144662	-26.83
218	226.42012428	-8.42
486	481.25113590	4.75
265	288.67265264	-23.67
241	240.32507507	0.67

467	470.58769845	-3.59
154	168.32161970	-14.32
353	378.90263783	-25.9
248	265.38587176	-17.39
247	267.75180563	-20.75
381	405.68395510	-24.68
420	406.75510428	13.24
344	368.84241221	-24.84
153	167.80256344	-14.8
390	413.24503221	-23.25
231	243.74819878	-12.75
441	456.43248879	-15.43
315	335.37337085	-20.37
240	254.64900288	-14.65
326	326.25846343	-0.26
309	334.75938346	-25.76
424	432.67580837	-8.68

Mean Square Error = 342.527068

Desired Output	Predict	Error
333	324.27420078	8.73
437	423.48238176	13.52
231	218.53577204	12.46
210	218.19483739	-8.19
294	280.04992826	13.95
306	293.58536692	12.41
464	467.64992228	-3.65
420	380.25993886	39.74
246	186.40867804	59.59
160	168.61376511	-8.61
156	168.47292431	-12.47
444	433.80892309	10.19
259	268.20423952	-9.2
232	222.04849816	9.95
242	219.40590410	22.59
300	245.54802308	54.45
327	308.67430015	18.33
211	219.69359899	-8.69
370	345.26684093	24.73
294	296.63280142	-2.63
459	452.22650413	6.77
472	476.54233831	-4.54
290	272.93918293	17.06
416	394.37853045	21.62
308	302.51316383	5.49
235	220.77429639	14.23
481	476.85868468	4.14
217	206.83029107	10.17
471	463.23067571	7.77
468	473.06358768	-5.06
413	360.35621657	52.64

Mean Square Error = 484.863771

Desired Output	Predict	Error
484	473.70517893	10.29
490	477.32593259	12.67
478	477.01908675	0.98

286	272.51053865	13.49
234	225.04944227	8.95
345	332.17280338	12.83
153	164.94450228	-11.94
483	476.86516718	6.13
328	322.00587765	5.99
252	265.65178225	-13.65
490	477.32495871	12.68
488	475.19721776	12.8
240	224.83296516	15.17
305	294.47919304	10.52
153	164.95046830	-11.95
288	274.33034881	13.67
310	299.52822292	10.47
435	428.23604474	6.76
447	438.58074216	8.42
457	449.08920347	7.91
224	175.09740787	48.9
490	477.19332539	12.81
376	359.42801696	16.57
325	318.50929582	6.49
215	214.35689374	0.64
390	352.69759482	37.3
489	475.85549126	13.14
253	264.28987857	-11.29
230	222.59034552	7.41
349	335.08036990	13.92
249	250.26365280	-1.26

Mean Square Error = 232.076148

***** Mean Square Error Average : 433.1353 *****
232.076148

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.27

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
337	325.97424889	11.03
441	430.57969713	10.42
410	354.41847420	55.58
317	308.80315101	8.2
255	246.47494004	8.53
153	164.16817603	-11.17
472	476.77747395	-4.78
460	442.77060743	17.23
376	357.94903742	18.05
274	267.29209580	6.71
308	301.98902192	6.01
208	218.35915049	-10.36
397	386.73708425	10.26
156	165.21372798	-9.21
333	323.02967633	9.97
224	178.11289556	45.89

488	476.46525322	11.53
245	232.21723348	12.78
327	308.37640221	18.62
405	354.43158441	50.57
431	419.78709938	11.21
231	224.85358770	6.15
450	418.85737538	31.14
485	477.47938860	7.52
209	220.27454023	-11.27
238	240.24661834	-2.25
292	275.42257063	16.58
370	306.89005895	63.11
165	165.73105816	-0.73
298	298.91264840	-0.91
300	300.11969488	-0.12

Mean Square Error = 503.057429

Desired Output	Predict	Error
234	214.80435642	19.2
351	314.75580864	36.24
319	307.43323089	11.57
155	163.21371435	-8.21
339	312.94089736	26.06
447	319.20192497	127.8
250	256.36199932	-6.36
294	290.90587112	3.09
288	227.63729062	60.36
245	225.10478148	19.9
436	319.10905259	116.89
433	317.25375799	115.75
456	319.86442766	136.14
490	320.52399025	169.48
468	320.18944706	147.81
465	319.66524342	145.33
156	163.15868614	-7.16
382	317.26591961	64.73
390	317.57295299	72.43
230	213.65920322	16.34
153	163.10413433	-10.1
290	288.16849674	1.83
234	209.69268810	24.31
288	287.70112914	0.3
280	234.88073525	45.12
168	163.45192237	4.55
345	312.79988088	32.2
153	163.05416329	-10.05
325	309.47210465	15.53
475	320.10621102	154.89
303	281.68066482	21.32

Mean Square Error = 5761.413416

Desired Output	Predict	Error
356	394.80712261	-38.81
328	361.52824271	-33.53
294	325.38085032	-31.38
235	248.55745815	-13.56
305	326.39473665	-21.39

209	237.85594776	-28.86
393	434.34616430	-41.35
471	474.41562462	-3.42
322	355.02677055	-33.03
353	391.41793019	-38.42
464	475.85771810	-11.86
236	247.30920444	-11.31
252	296.15334489	-44.15
350	294.24750261	55.75
444	466.47011147	-22.47
240	257.69874738	-17.7
315	328.23189277	-13.23
413	424.65383348	-11.65
404	438.97674030	-34.98
246	203.18279677	42.82
293	323.26139874	-30.26
240	245.93344579	-5.93
247	276.70801517	-29.71
153	167.52463616	-14.52
209	239.15076180	-30.15
460	475.26310986	-15.26
291	317.67864661	-26.68
433	458.69295048	-25.69
232	244.60559359	-12.61
370	404.81113200	-34.81
286	304.79817667	-18.8

Mean Square Error = 812.008597

Desired Output	Predict	Error
341	369.51935743	-28.52
471	473.50492948	-2.5
153	165.51074299	-12.51
420	429.12202686	-9.12
471	474.03888803	-3.04
234	247.90735932	-13.91
390	418.65021181	-28.65
290	311.09647640	-21.1
262	290.08397470	-28.08
215	232.53570365	-17.54
270	266.04548759	3.95
245	254.87007731	-9.87
214	239.17580667	-25.18
486	480.39446888	5.61
396	423.52040913	-27.52
470	473.64963965	-3.65
385	414.56664172	-29.57
470	477.51145179	-7.51
325	353.58657997	-28.59
243	248.30221028	-5.3
268	290.55995689	-22.56
303	327.69435995	-24.69
284	296.30146842	-12.3
467	472.18622274	-5.19
377	397.85792995	-20.86
481	478.89842330	2.1
218	228.55920953	-10.56
208	236.00347164	-28.0
380	351.73197290	28.27
490	480.81374668	9.19

328		358.95922427		-30.96
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Mean Square Error = 368.505955

Desired Output	Predict	Error
401	425.36723320	-24.37
422	441.75725645	-19.76
340	340.34691614	-0.35
319	348.04565097	-29.05
310	330.60332840	-20.6
209	239.95675882	-30.96
470	473.21831022	-3.22
466	469.10941604	-3.11
188	169.12910254	18.87
478	481.89357180	-3.89
172	168.49760921	3.5
230	239.49169391	-9.49
322	329.69057937	-7.69
217	230.43378180	-13.43
236	256.58258204	-20.58
276	295.49305137	-19.49
211	243.85039000	-32.85
330	339.83245224	-9.83
315	342.97066064	-27.97
233	245.89421531	-12.89
232	246.69764329	-14.7
239	266.97598750	-27.98
469	473.94038190	-4.94
390	363.46030046	26.54
416	436.94770064	-20.95
246	267.45941393	-21.46
307	327.11164744	-20.11
374	395.31730738	-21.32
320	345.43077208	-25.43
250	265.37132514	-15.37
427	446.64932309	-19.65

Mean Square Error = 375.068423

Desired Output	Predict	Error
232	243.62153803	-11.62
331	354.79842645	-23.8
221	224.69987632	-3.7
211	240.92060636	-29.92
448	464.85665663	-16.86
340	283.00383782	57.0
247	266.33621564	-19.34
462	470.22006206	-8.22
253	286.55665101	-33.56
247	266.89101144	-19.89
417	418.32796550	-1.33
288	298.48293536	-10.48
437	453.54387373	-16.54
322	349.73854629	-27.74
470	480.16009698	-10.16
323	342.90641029	-19.91
490	482.01032805	7.99
471	474.17440560	-3.17
360	303.06554175	56.93

490	481.99665108	8.0
271	289.09519724	-18.1
398	374.56181962	23.44
192	173.79883035	18.2
457	467.53732137	-10.54
490	481.60615033	8.39
251	287.50985385	-36.51
465	471.26443610	-6.26
208	237.52825484	-29.53
212	239.83924660	-27.84
447	461.82145867	-14.82
309	333.97506684	-24.98

Mean Square Error = 561.06421

Desired Output	Predict	Error
259	210.71288810	48.29
470	473.69590936	-3.7
246	264.77450406	-18.77
490	479.39565766	10.6
333	354.42763371	-21.43
288	311.18486221	-23.18
252	292.65586535	-40.66
300	316.75358713	-16.75
327	349.38763467	-22.39
361	389.04616188	-28.05
438	437.81767704	0.18
294	324.02733970	-30.03
368	400.10443805	-32.1
225	226.58777120	-1.59
333	349.28069184	-16.28
214	234.25453914	-20.25
308	329.51234247	-21.51
450	466.07045081	-16.07
459	469.85698234	-10.86
216	227.47294295	-11.47
230	243.15896313	-13.16
435	455.06934174	-20.07
489	478.97933515	10.02
154	168.78249614	-14.78
427	446.11900427	-19.12
478	477.59786481	0.4
260	266.70837080	-6.71
242	244.17066852	-2.17
412	434.17544794	-22.18
410	436.39225566	-26.39
444	462.34206346	-18.34

Mean Square Error = 433.680697

Desired Output	Predict	Error
490	481.02082668	8.98
362	361.52100693	0.48
249	274.73567104	-25.74
240	241.45080939	-1.45
328	270.46627125	57.53
430	446.92771537	-16.93
308	319.27537384	-11.28
305	322.49682276	-17.5

307	329.70364427	-22.7
424	435.08715620	-11.09
314	266.25159100	47.75
248	265.60245286	-17.6
468	473.03050407	-5.03
265	289.22577985	-24.23
296	324.80066457	-28.8
164	170.92195427	-6.92
357	384.16034034	-27.16
178	172.22423911	5.78
231	238.43761602	-7.44
290	282.29073595	7.71
270	233.53588886	36.46
468	478.40024282	-10.4
291	314.82003148	-23.82
311	337.25378448	-26.25
335	357.89995706	-22.9
300	262.91872053	37.08
156	170.38924082	-14.39
213	234.74699348	-21.75
238	237.53538113	0.46
470	473.57131840	-3.57
153	169.38839861	-16.39

Mean Square Error = 514.001087

Desired Output	Predict	Error
365	390.33998883	-25.34
315	334.59926897	-19.6
241	242.46357217	-1.46
489	480.97893701	8.02
305	328.12427371	-23.12
317	343.59546451	-26.6
210	240.88799264	-30.89
349	375.32041347	-26.32
215	234.69332295	-19.69
237	186.16290235	50.84
440	458.17041471	-18.17
445	440.83819524	4.16
412	397.86784750	14.13
215	235.62224093	-20.62
306	323.45442760	-17.45
280	294.13857475	-14.14
405	414.56916226	-9.57
313	339.55292886	-26.55
328	354.33476228	-26.33
160	165.46634872	-5.47
428	414.46391034	13.54
390	380.59852234	9.4
315	335.64256812	-20.64
454	453.09647284	0.9
244	250.92940790	-6.93
451	469.92343230	-18.92
214	237.93659468	-23.94
294	305.70772462	-11.71
213	239.77033570	-26.77
303	318.36724371	-15.37
381	407.48628736	-26.49

Mean Square Error = 432.900432

Desired Output	Predict	Error
326	307.01731697	18.98
153	164.40949175	-11.41
235	225.01000328	9.99
483	475.49477545	7.51
215	215.31924093	-0.32
344	327.54449930	16.46
297	291.66670736	5.33
329	314.45513299	14.54
209	220.08260280	-11.08
209	220.18374325	-11.18
455	445.42712176	9.57
314	301.49008437	12.51
259	268.24187013	-9.24
256	266.87939586	-10.88
475	469.74325251	5.26
207	177.24189735	29.76
311	300.28265539	10.72
481	475.54392737	5.46
153	164.49778377	-11.5
467	454.36937686	12.63
420	367.87385521	52.13
253	266.63781501	-13.64
210	222.90007786	-12.9
488	474.85562296	13.14
490	475.56774972	14.43
156	165.49959937	-9.5
296	283.90271516	12.1
360	343.53803537	16.46
486	473.36461363	12.64
153	164.40949175	-11.41
469	456.85190626	12.15

Mean Square Error = 245.256577

***** Mean Square Error Average : 1000.6957 *****
245.256577

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.28

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
445	416.78083039	28.22
361	341.17004063	19.83
305	294.77162728	10.23
360	286.60855303	73.39
319	305.25694626	13.74
317	309.58141846	7.42
225	213.10924482	11.89
401	385.60835731	15.39
469	461.13681457	7.86
459	451.64359049	7.36

490	475.69940216	14.3
341	327.80680514	13.19
153	166.46618955	-13.47
322	314.19903205	7.8
345	329.75675665	15.24
470	461.37520488	8.62
209	219.53871591	-10.54
362	337.39472435	24.61
333	319.38880445	13.61
481	471.52014550	9.48
404	381.99837494	22.0
294	294.36236203	-0.36
382	362.84621835	19.15
410	353.11988161	56.88
444	434.29412352	9.71
470	461.48107901	8.52
486	475.26828822	10.73
246	240.15726518	5.84
468	467.47957481	0.52
320	314.22378874	5.78
405	373.26787539	31.73

Mean Square Error = 476.783423

Desired Output	Predict	Error
288	285.05550511	2.94
156	166.80034100	-10.8
450	442.22291850	7.78
153	166.22805626	-13.23
467	458.73733369	8.26
153	166.01893956	-13.02
211	222.01845488	-11.02
288	274.06812226	13.93
290	284.86140105	5.14
291	289.21492119	1.79
381	363.31016460	17.69
457	449.14244824	7.86
255	246.87869527	8.12
412	366.52450225	45.48
490	478.35027716	11.65
448	441.99385757	6.01
440	429.72041653	10.28
215	215.63184517	-0.63
413	364.15205549	48.85
164	167.15604020	-3.16
484	474.80396360	9.2
250	242.26439618	7.74
215	212.88858625	2.11
192	170.57414138	21.43
470	470.74602762	-0.75
315	308.92618202	6.07
288	243.86843836	44.13
333	324.38361786	8.62
468	460.68007114	7.32
405	357.30036907	47.7
209	218.58525506	-9.59

Mean Square Error = 361.782652

Desired Output	Predict	Error
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466	453.63597213	12.36
396	376.95035697	19.05
481	475.61886483	5.38
475	470.03660143	4.96
238	239.59556063	-1.6
240	233.65407245	6.35
259	204.50853538	54.49
365	345.31778313	19.68
209	218.55407820	-9.55
294	291.22780050	2.77
234	221.43452781	12.57
246	243.94021510	2.06
457	436.30005624	20.7
465	449.31237471	15.69
488	473.86823698	14.13
296	284.17431029	11.83
230	222.39147822	7.61
209	219.70864123	-10.71
420	384.11893879	35.88
293	292.83035080	0.17
153	166.29344125	-13.29
327	309.52215751	17.48
230	215.67549116	14.32
350	272.39567883	77.6
397	385.71581873	11.28
232	224.54514753	7.45
420	370.89814323	49.1
315	300.75504106	14.24
380	323.71426783	56.29
218	209.98184062	8.02
303	296.38962570	6.61

Mean Square Error = 628.576787

Desired Output	Predict	Error
471	462.61999313	8.38
451	453.49095169	-2.49
306	289.23659250	16.76
471	463.06877531	7.93
156	160.55517317	-4.56
294	275.41242904	18.59
319	309.38098961	9.62
357	342.96929985	14.03
390	374.42545407	15.57
232	228.61529118	3.38
441	429.90571237	11.09
368	352.62743668	15.37
374	351.17691213	22.82
310	296.38874378	13.61
153	159.82616910	-6.83
360	345.55148413	14.45
390	336.83653824	53.16
153	160.01851724	-7.02
430	412.08380647	17.92
470	477.98477463	-7.98
213	218.85668736	-5.86
243	226.77615478	16.22
472	479.11280686	-7.11
349	334.06078308	14.94

376	359.75642625	16.24
265	263.47861702	1.52
435	427.80109431	7.2
153	159.89829076	-6.9
286	269.48696206	16.51
490	478.77375279	11.23
303	295.04742739	7.95

Mean Square Error = 235.778523

Desired Output	Predict	Error
253	265.58955946	-12.59
214	215.91342192	-1.91
300	286.13578720	13.86
260	247.48629611	12.51
314	250.48940747	63.51
308	300.66056032	7.34
291	285.72516901	5.27
210	221.15677938	-11.16
478	476.62307598	1.38
328	320.50014354	7.5
214	216.80111417	-2.8
327	305.76498715	21.24
233	221.80666551	11.19
280	270.79734680	9.2
331	322.24726722	8.75
234	226.15701197	7.84
416	398.11275207	17.89
303	288.78739181	14.21
156	167.62868625	-11.63
212	220.49715517	-8.5
398	342.07619979	55.92
340	317.06920694	22.93
300	298.90468310	1.1
490	476.62166247	13.38
292	276.40866223	15.59
328	321.98630599	6.01
165	167.84741517	-2.85
308	296.44209548	11.56
247	246.71145433	0.29
370	305.41263439	64.59
490	476.61630608	13.38

Mean Square Error = 482.256

Desired Output	Predict	Error
235	223.63538313	11.36
489	474.92848650	14.07
469	459.72667652	9.27
486	473.82289594	12.18
478	471.42779753	6.57
298	300.02697995	-2.03
290	289.32030983	0.68
467	457.67026569	9.33
307	301.17262010	5.83
297	291.53480894	5.47
444	436.18061996	7.82
422	403.36113254	18.64
245	237.42335503	7.58

178	166.76924913	11.23
417	372.64174125	44.36
460	464.91165079	-4.91
311	299.94397416	11.06
231	221.67842939	9.32
215	215.13770790	-0.14
274	269.83619274	4.16
249	256.57684075	-7.58
207	173.57457945	33.43
211	222.75748951	-11.76
464	466.89675117	-2.9
490	476.16380766	13.84
447	439.26192905	7.74
427	411.23034714	15.77
232	221.96668814	10.03
230	222.35139964	7.65
296	298.59068997	-2.59
390	368.84535506	21.15

Mean Square Error = 193.73019

Desired Output	Predict	Error
240	221.92477651	18.08
315	304.85591866	10.14
427	402.05755605	24.94
268	265.45397804	2.55
259	264.81709261	-5.82
288	281.70519955	6.29
208	209.46669478	-1.47
328	252.98502592	75.01
307	296.10742117	10.89
172	166.75130480	5.25
377	351.46451468	25.54
276	267.69087420	8.31
460	440.64177749	19.36
323	308.38076538	14.62
224	172.83360899	51.17
489	477.15184520	11.85
447	453.89119440	-6.89
490	477.02481753	12.98
326	305.44464884	20.56
251	262.41244634	-11.41
470	461.33276644	8.67
239	243.05669375	-4.06
241	217.85274444	23.15
462	452.78572896	9.21
234	224.10309885	9.9
216	207.01786459	8.98
431	417.10716975	13.89
412	396.38048160	15.62
335	319.86531475	15.13
231	221.77685728	9.22
160	166.47460202	-6.47

Mean Square Error = 433.153668

Desired Output	Predict	Error
314	319.26845082	-5.27
309	334.23087517	-25.23

238	239.90144254	-1.9
308	320.07220510	-12.07
240	243.36538512	-3.37
325	353.38478514	-28.38
330	339.67024596	-9.67
485	481.55252365	3.45
436	454.00528177	-18.01
305	328.64418124	-23.64
325	353.59735493	-28.6
153	170.03743351	-17.04
244	248.85890166	-4.86
328	355.86947347	-27.87
428	416.01382567	11.99
471	474.61517632	-3.62
438	434.22769114	3.77
468	478.95301865	-10.95
248	267.68686913	-19.69
213	237.09545277	-24.1
317	340.82245270	-23.82
270	236.76293746	33.24
221	222.99188923	-1.99
302	317.08313253	-15.08
370	389.53418083	-19.53
247	268.86619170	-21.87
253	288.40773986	-35.41
483	481.63896527	1.36
209	234.94499818	-25.94
337	363.17593576	-26.18
329	351.08771409	-22.09

Mean Square Error = 375.887848

Desired Output	Predict	Error
311	306.64649951	4.35
424	393.99392115	30.01
252	265.98486912	-13.98
280	245.10870293	34.89
385	369.46029628	15.54
252	266.01850311	-14.02
245	231.75793759	13.24
475	478.83778188	-3.84
356	339.35304780	16.65
465	470.49292530	-5.49
270	243.06197921	26.94
339	323.61817676	15.38
236	231.45429598	4.55
454	429.52683484	24.47
300	244.40356158	55.6
322	318.34648814	3.65
217	209.48304889	7.52
465	457.31128722	7.69
168	168.45905651	-0.46
284	271.58929262	12.41
208	217.86017484	-9.86
155	167.80176226	-12.8
340	263.35649127	76.64
322	303.74806892	18.25
455	446.90545533	8.09
390	354.65212985	35.35
450	420.79504471	29.2

433		417.59347351		15.41
214		218.02488742		-4.02
410		389.56835119		20.43
456		462.44459596		-6.44

Mean Square Error = 566.842655

Desired Output		Predict		Error
237		184.68468851		52.32
313		339.65808508		-26.66
215		230.25781244		-15.26
245		255.31887906		-10.32
154		166.76336453		-12.76
153		166.31743970		-13.32
250		291.45539272		-41.46
246		193.59394852		52.41
344		370.07529309		-26.08
247		269.17342016		-22.17
262		291.66803967		-29.67
256		290.04037865		-34.04
471		473.30221498		-2.3
208		235.92436788		-27.92
188		169.44784326		18.55
294		323.19142401		-29.19
437		456.01057868		-19.01
156		166.98720632		-10.99
210		238.34036617		-28.34
470		473.40178193		-3.4
236		244.20907491		-8.21
333		360.85930587		-27.86
490		479.84942976		10.15
488		479.49487750		8.51
315		335.28395831		-20.28
393		423.73327836		-30.73
242		243.12139545		-1.12
353		380.82320430		-27.82
271		292.57346923		-21.57
305		321.45262642		-16.45
351		376.49787512		-25.5

Mean Square Error = 632.838906

***** Mean Square Error Average : 438.7631 *****
193.73019

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.29

Momentum rate : 0.07

Activiaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
155		164.82891022		-9.83
303		289.52719696		13.47
420		371.74303678		48.26
361		344.54809041		16.45

296	281.52572469	14.47
490	478.62929172	11.37
376	360.19945987	15.8
465	447.60462834	17.4
233	224.01217182	8.99
293	288.84790600	4.15
416	397.57748961	18.42
349	335.74760059	13.25
405	375.16626678	29.83
208	216.64646422	-8.65
490	478.57434300	11.43
472	478.32808579	-6.33
470	477.64214807	-7.64
294	292.38073074	1.62
247	239.80334326	7.2
337	326.93412078	10.07
398	342.42156168	55.58
303	287.81898593	15.18
475	471.52212135	3.48
362	332.78777590	29.21
450	417.60159809	32.4
471	462.29565485	8.7
370	305.38468866	64.62
288	280.80254337	7.2
215	216.46006875	-1.46
327	311.55026723	15.45
438	399.20741664	38.79

Mean Square Error = 548.861265

Desired Output	Predict	Error
341	370.82512388	-29.83
448	465.86239020	-17.86
441	459.18930269	-18.19
390	381.20208230	8.8
471	473.52764527	-2.53
468	472.60090067	-4.6
325	356.16702241	-31.17
154	169.86465492	-15.86
248	270.21033014	-22.21
242	240.76137142	1.24
333	347.21984731	-14.22
259	213.14820086	45.85
280	252.20483572	27.8
309	335.74658483	-26.75
328	355.38898965	-27.39
230	239.46486721	-9.46
244	248.27448982	-4.27
330	339.75893177	-9.76
322	349.37213180	-27.37
246	264.51389283	-18.51
340	283.20691064	56.79
215	229.74021867	-14.74
350	289.69779599	60.3
326	323.10843158	2.89
308	333.22220374	-25.22
490	479.87123357	10.13
245	247.88811601	-2.89
232	241.61100395	-9.61
433	452.88305219	-19.88

250		256.43678678		-6.44
483		479.79819586		3.2

Mean Square Error = 566.886826

Desired Output		Predict		Error
464		473.34898944		-9.35
430		419.18284321		10.82
153		165.43201360		-12.43
417		382.03343187		34.97
153		165.72307277		-12.72
237		189.67568240		47.32
466		455.78852241		10.21
486		481.64842171		4.35
208		214.96168915		-6.96
475		483.25849273		-8.26
238		223.76180506		14.24
339		326.79461870		12.21
311		308.00030262		3.0
486		480.56659446		5.43
331		331.99583565		-1.0
290		284.18021835		5.82
270		239.99824870		30.0
481		482.62260153		-1.62
485		481.94504965		3.05
268		261.36653694		6.63
298		298.98995875		-0.99
164		166.48379326		-2.48
245		228.77260568		16.23
209		219.92797288		-10.93
457		438.54791098		18.45
322		319.26934030		2.73
234		221.01749944		12.98
380		329.32498965		50.68
153		165.49773571		-12.5
270		241.20595879		28.79
210		221.46788156		-11.47

Mean Square Error = 328.880697

Desired Output		Predict		Error
345		330.66277750		14.34
365		346.43241549		18.57
294		293.17319304		0.83
210		219.04431623		-9.04
328		320.71790726		7.28
374		349.41677329		24.58
427		411.04191921		15.96
250		266.02675413		-16.03
160		166.80085440		-6.8
314		249.75090245		64.25
302		291.96903727		10.03
325		322.12679302		2.87
468		472.51594344		-4.52
445		413.36209372		31.64
490		476.32790651		13.67
357		341.80207075		15.2
308		296.50892566		11.49
172		167.58023890		4.42

344	327.23744414	16.76
470	461.19305873	8.81
209	216.89019110	-7.89
216	210.40819245	5.59
153	165.84205934	-12.84
478	471.31372519	6.69
291	288.86205327	2.14
467	456.78529129	10.21
470	461.48130014	8.52
288	285.01965836	2.98
490	475.64631370	14.35
168	167.54563761	0.45
465	467.75988021	-2.76

Mean Square Error = 281.985377

Desired Output	Predict	Error
232	318.40213141	-86.4
333	323.23510247	9.76
470	332.42824252	137.57
300	321.84817782	-21.85
260	319.65659502	-59.66
209	318.40300955	-109.4
467	333.02171283	133.98
300	322.02916656	-22.03
333	322.36430233	10.64
249	320.61260931	-71.61
460	335.43439917	124.57
246	262.33834369	-16.34
153	159.82490791	-6.82
188	160.74879062	27.25
315	321.72539318	-6.73
214	318.47551274	-104.48
252	320.82768256	-68.83
397	325.64839956	71.35
290	319.18146281	-29.18
470	333.61202644	136.39
213	318.56697723	-105.57
307	322.17770234	-15.18
215	318.01777709	-103.02
271	321.00731033	-50.01
465	332.71679157	132.28
489	341.39766523	147.6
243	319.57810378	-76.58
178	160.45863796	17.54
297	320.02488955	-23.02
420	326.45704321	93.54
454	327.23936004	126.76

Mean Square Error = 7041.239742

Desired Output	Predict	Error
405	350.96519852	54.03
156	165.21324181	-9.21
307	294.94452754	12.06
239	240.87013155	-1.87
156	164.96946232	-8.97
489	474.27343177	14.73
437	420.29825087	16.7

328	320.14326413	7.86
211	220.74687158	-9.75
240	225.29038621	14.71
360	285.14739996	74.85
488	472.52436895	15.48
340	313.88772983	26.11
276	269.43337713	6.57
478	475.59066570	2.41
255	245.21288962	9.79
230	216.86091815	13.14
240	238.09836689	1.9
377	347.09056879	29.91
156	165.06762360	-9.07
353	334.07005950	18.93
236	232.64710792	3.35
410	385.81191374	24.19
311	297.98036974	13.02
368	348.01840752	19.98
412	395.81397836	16.19
262	266.95598264	-4.96
327	302.18169537	24.82
288	243.54017283	44.46
469	458.23066566	10.77
427	400.07819607	26.92

Mean Square Error = 553.805339

Desired Output	Predict	Error
460	463.90525422	-3.91
470	479.19465218	-9.19
256	291.13344862	-35.13
240	249.37593264	-9.38
305	323.71429308	-18.71
435	455.77369842	-20.77
396	419.91545098	-23.92
447	471.24249965	-24.24
211	242.40439513	-31.4
315	342.65587111	-27.66
393	419.73608220	-26.74
234	252.38193915	-18.38
303	329.79835699	-26.8
241	245.85889573	-4.86
370	391.57646882	-21.58
221	227.26002160	-6.26
488	482.41078032	5.59
428	415.59339677	12.41
252	291.13652361	-39.14
274	295.59175279	-21.59
251	290.30736636	-39.31
401	425.38023735	-24.38
444	461.21940557	-17.22
310	330.90152754	-20.9
433	424.83179432	8.17
209	238.11392167	-29.11
335	359.19894422	-24.2
247	270.27833765	-23.28
235	247.30473796	-12.3
245	261.06033892	-16.06
382	408.39751546	-26.4

Mean Square Error = 503.803661

Desired Output	Predict	Error
328	253.58987978	74.41
214	216.21542331	-2.22
456	461.21209864	-5.21
246	239.05870281	6.94
292	275.87136130	16.13
455	446.93921667	8.06
209	217.88991377	-8.89
440	431.03308228	8.97
300	245.70507679	54.29
323	307.31872699	15.68
469	459.68632736	9.31
192	168.66874834	23.33
290	283.96071255	6.04
360	343.62740333	16.37
444	434.68676763	9.31
236	224.91752849	11.08
305	298.44937877	6.55
356	337.85602906	18.14
404	383.12622436	20.87
412	365.96030801	46.04
490	476.38672094	13.61
313	306.59932752	6.4
208	214.99863223	-7.0
315	304.11191119	10.89
238	241.18597268	-3.19
381	363.44175004	17.56
484	473.18978642	10.81
294	289.01424910	4.99
471	463.33464201	7.67
165	165.55099002	-0.55
322	302.11271637	19.89

Mean Square Error = 473.414981

Desired Output	Predict	Error
153	168.69179995	-15.69
280	294.16845695	-14.17
390	415.83237295	-25.83
231	244.06468653	-13.06
259	288.96170171	-29.96
291	311.95214477	-20.95
286	297.41054246	-11.41
413	409.30104631	3.7
481	480.10317117	0.9
153	168.48604955	-15.49
215	233.59019363	-18.59
247	268.09953165	-21.1
422	440.27206199	-18.27
351	376.00382454	-25.0
317	344.55878980	-27.56
218	228.95812147	-10.96
459	468.89090832	-9.89
213	238.98196273	-25.98
447	461.68620420	-14.69
329	353.08953578	-24.09
288	299.70383981	-11.7

153	168.58363969	-15.58
234	246.98908284	-12.99
153	168.41073688	-15.41
314	317.95871212	-3.96
308	319.80560269	-11.81
212	240.51918498	-28.52
424	433.36429188	-9.36
296	325.39382503	-29.39
462	470.33500711	-8.34
156	169.34516999	-13.35

Mean Square Error = 327.663071

Desired Output	Predict	Error
436	456.69100576	-20.69
451	471.39098123	-20.39
468	477.94210066	-9.94
230	244.42665749	-14.43
224	178.39514222	45.6
490	481.64174515	8.36
319	346.89563247	-27.9
284	297.54213271	-13.54
235	244.13824709	-9.14
294	306.89061587	-12.89
253	288.79056671	-35.79
385	413.61702467	-28.62
214	236.87667605	-22.88
390	364.44646066	25.55
315	335.89081365	-20.89
410	401.93746242	8.06
319	341.08104622	-22.08
390	416.42345324	-26.42
306	324.06276731	-18.06
450	465.53737932	-15.54
207	174.12929571	32.87
225	229.42295531	-4.42
217	228.29093992	-11.29
232	244.29232253	-12.29
305	323.43318806	-18.43
231	246.17968566	-15.18
457	468.85262501	-11.85
253	289.09973765	-36.1
490	481.55985345	8.44
209	237.21656154	-28.22
431	453.10762469	-22.11

Mean Square Error = 477.131745

***** Mean Square Error Average : 1110.3673 *****
281.985377

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.3

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
450	446.46830305	3.53
319	306.60976384	12.39
471	465.18053496	5.82
240	224.35354767	15.65
160	165.89524747	-5.9
259	226.21388359	32.79
290	278.67435654	11.33
465	450.98850291	14.01
401	388.45986959	12.54
475	476.13025485	-1.13
153	165.38037766	-12.38
270	239.93128840	30.07
313	307.93860970	5.06
393	385.52034741	7.48
315	309.30832576	5.69
412	372.87158819	39.13
245	230.79761896	14.2
490	482.30703638	7.69
213	217.10842285	-4.11
405	377.31957145	27.68
471	466.16102542	4.84
294	285.16642829	8.83
460	444.84680771	15.15
351	338.14301721	12.86
248	232.61345208	15.39
490	482.24668023	7.75
214	215.52366491	-1.52
488	480.64354108	7.36
417	380.55473537	36.45
241	220.91650249	20.08
244	225.29216830	18.71

Mean Square Error = 281.158406

Desired Output	Predict	Error
397	376.45895975	20.54
390	324.18151518	65.82
290	271.74400073	18.26
211	218.18840123	-7.19
441	419.79652502	21.2
221	208.63796251	12.36
481	470.62250721	10.38
252	263.82776370	-11.83
294	294.09053957	-0.09
362	321.87062586	40.13
433	366.77078674	66.23
469	451.66783312	17.33
360	344.34594872	15.65
294	292.44087213	1.56
349	332.41590600	16.58
470	464.43404837	5.57
209	215.53228928	-6.53
490	472.99735593	17.0
215	211.42697232	3.57
404	377.87193819	26.13
209	215.69976177	-6.7
253	263.01073243	-10.01
356	339.24305193	16.76

155	165.04816788	-10.05
210	217.35886940	-7.36
470	447.75065434	22.25
291	285.75395958	5.25
240	232.93009571	7.07
478	470.27339928	7.73
209	215.65985115	-6.66
490	473.80740055	16.19

Mean Square Error = 496.348123

Desired Output	Predict	Error
235	252.87509781	-17.88
337	396.79694139	-59.8
340	336.45449520	3.55
215	244.85425030	-29.85
353	411.41524799	-58.42
156	161.54111646	-5.54
370	322.23104448	47.77
238	254.81250975	-16.81
317	361.59841389	-44.6
288	324.03709467	-36.04
398	379.36031267	18.64
431	457.35024143	-26.35
230	263.14043931	-33.14
427	455.35201123	-28.35
361	416.71862749	-55.72
213	253.00604079	-40.01
265	311.57363742	-46.57
448	463.72283856	-15.72
333	364.19826621	-31.2
320	365.61319364	-45.61
322	368.67944478	-46.68
153	159.43264065	-6.43
280	237.44948891	42.55
410	430.46592601	-20.47
490	469.49871217	20.5
208	257.50273619	-49.5
192	170.26186638	21.74
293	339.25733080	-46.26
308	359.12705868	-51.13
470	468.90036782	1.1
274	314.29495176	-40.29

Mean Square Error = 1335.038161

Desired Output	Predict	Error
288	280.20890138	7.79
390	381.72141392	8.28
303	299.77691668	3.22
215	214.20765959	0.79
246	194.28741130	51.71
447	445.73452657	1.27
292	270.84091309	21.16
365	353.19623407	11.8
209	217.30261852	-8.3
490	481.55667432	8.44
156	164.23853141	-8.24
237	180.55655873	56.44

485	480.23914677	4.76
436	433.25942928	2.74
178	165.02410891	12.98
234	224.83256749	9.17
247	236.94515789	10.05
259	261.13880808	-2.14
214	216.71871587	-2.72
290	284.73076667	5.27
224	173.44312364	50.56
242	220.50952739	21.49
468	474.50318400	-6.5
153	163.92019613	-10.92
156	164.21313228	-8.21
212	219.53532057	-7.54
168	164.76614543	3.23
333	330.88008889	2.12
422	412.53164046	9.47
331	332.53000786	-1.53
306	291.08760417	14.91

Mean Square Error = 350.09301

Desired Output	Predict	Error
232	317.17567290	-85.18
327	320.05414537	6.95
470	329.62941143	140.37
303	319.26349741	-16.26
412	322.36024181	89.64
325	320.14415899	4.86
483	350.46705719	132.53
435	325.42748412	109.57
329	320.09805046	8.9
468	348.34524449	119.65
231	317.76916423	-86.77
427	321.80013314	105.2
305	319.86220254	-14.86
233	317.75581397	-84.76
457	325.71686161	131.28
255	318.22585240	-63.23
252	319.21988996	-67.22
382	320.77664016	61.22
153	164.81945931	-11.82
215	317.02530626	-102.03
260	318.31284851	-58.31
230	316.83749402	-86.84
445	322.41160813	122.59
428	321.31027759	106.69
232	317.78288440	-85.78
236	318.24531012	-82.25
470	329.94282856	140.06
396	321.02050668	74.98
490	348.40387021	141.6
374	320.56413089	53.44
245	317.76473188	-72.76

Mean Square Error = 8072.928723

Desired Output	Predict	Error
245	257.06621076	-12.07

357	386.16648343	-29.17
249	276.26561677	-27.27
250	290.83617359	-40.84
457	458.91140351	-1.91
153	170.66227229	-17.66
319	349.33543256	-30.34
350	294.73805377	55.26
232	247.28362939	-15.28
466	469.41779634	-3.42
322	331.40354649	-9.4
243	249.70503642	-6.71
385	412.98394111	-27.98
300	331.17933916	-31.18
344	373.20927077	-29.21
465	471.37546905	-6.38
253	290.95817791	-37.96
309	337.26934050	-28.27
330	340.95416722	-10.95
208	234.64513357	-26.65
462	470.31694698	-8.32
368	398.30303475	-30.3
153	170.61398402	-17.61
303	322.14528125	-19.15
341	370.87327393	-29.87
488	481.74378699	6.26
271	295.54972749	-24.55
447	470.29031854	-23.29
327	335.52985933	-8.53
314	319.72246769	-5.72
218	228.41957395	-10.42

Mean Square Error = 572.593958

Desired Output	Predict	Error
311	335.19363888	-24.19
251	294.29874499	-43.3
216	229.54246435	-13.54
486	479.34641739	6.65
250	262.02472823	-12.02
256	293.61210474	-37.61
247	272.85182336	-25.85
381	410.62645800	-29.63
164	169.75152585	-5.75
302	319.79318173	-17.79
467	470.56773878	-3.57
307	328.44739455	-21.45
390	418.95131761	-28.95
305	324.52560501	-19.53
454	454.21913494	-0.22
468	473.08813247	-5.09
262	295.13756357	-33.14
246	263.89978080	-17.9
246	267.94497054	-21.94
209	238.29332159	-29.29
211	240.90027821	-29.9
420	406.71932073	13.28
225	228.94929561	-3.95
317	346.21249625	-29.21
231	241.77580219	-10.78
308	322.53827221	-14.54

471	474.02470398	-3.02
322	352.75988888	-30.76
315	327.39010795	-12.39
333	362.97509315	-29.98
325	353.57806778	-28.58

Mean Square Error = 506.76791

Desired Output	Predict	Error
296	309.35550336	-13.36
424	424.16937792	-0.17
288	260.47983656	27.52
437	445.73532128	-8.74
420	416.34326152	3.66
165	172.22181632	-7.22
472	484.26169399	-12.26
455	461.28313007	-6.28
451	469.18521845	-18.19
210	239.99779062	-30.0
370	385.57430806	-15.57
236	246.36764286	-10.37
467	469.98822483	-2.99
300	262.86066066	37.14
238	260.70308758	-22.7
328	358.07451692	-30.07
484	481.79686143	2.2
235	244.14308539	-9.14
294	304.14915716	-10.15
328	358.23708131	-30.24
450	436.78757732	13.21
314	266.52084962	47.48
475	484.34763943	-9.35
153	170.03454500	-17.03
413	399.79403821	13.21
156	171.16315742	-15.16
440	451.37453534	-11.37
471	472.52263954	-1.52
307	330.41514682	-23.42
489	483.42991861	5.57
380	349.48337853	30.52

Mean Square Error = 374.685332

Desired Output	Predict	Error
291	283.66646292	7.33
234	223.29140704	10.71
240	224.72053875	15.28
335	323.42294658	11.58
247	240.00274873	7.0
444	441.24118617	2.76
280	265.31423526	14.69
486	479.57005313	6.43
430	414.43737684	15.56
328	319.63211098	8.37
172	165.47099536	6.53
460	468.26248583	-8.26
339	327.32724944	11.67
444	435.63106322	8.37
268	261.53869586	6.46

305	290.86909297	14.13
239	241.39768454	-2.4
323	311.16359143	11.84
209	218.42961293	-9.43
360	274.36744299	85.63
298	295.25383019	2.75
288	278.72753301	9.27
286	268.03505950	17.96
490	480.36711944	9.63
300	283.92803340	16.07
308	296.70083172	11.3
345	334.95542722	10.04
459	453.65364266	5.35
234	226.65216378	7.35
217	213.36703158	3.63
208	214.59658542	-6.6

Mean Square Error = 336.216755

Desired Output	Predict	Error
276	268.49174431	7.51
230	220.87525869	9.12
328	249.42376492	78.58
297	281.77660852	15.22
433	416.90282334	16.1
188	169.96387788	18.04
481	472.87680360	8.12
270	219.58077867	50.42
465	470.70002693	-5.7
438	401.45798079	36.54
340	261.25472139	78.75
377	352.41136473	24.59
416	396.39268639	19.61
376	358.61529433	17.38
489	475.92667370	13.07
478	471.87095372	6.13
456	460.86416062	-4.86
310	299.67782412	10.32
315	304.94983307	10.05
326	302.42586317	23.57
207	172.05688705	34.94
153	169.13016835	-16.13
470	461.08684108	8.91
154	169.26070566	-15.26
214	214.26629261	-0.27
153	169.06822070	-16.07
311	305.57970863	5.42
464	466.75087944	-2.75
296	296.35188370	-0.35
410	389.24157250	20.76
390	353.17897085	36.82

Mean Square Error = 757.086677

***** Mean Square Error Average : 1308.2917 *****

281.158406

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.31

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
470	476.99925852	-7.0
490	481.04404670	8.96
231	249.18590578	-18.19
290	314.05724224	-24.06
213	241.09007163	-28.09
333	363.28228765	-30.28
471	471.85853050	-0.86
247	270.92162389	-23.92
457	464.95237127	-7.95
239	270.39070227	-31.39
294	325.94325151	-31.94
231	250.85408509	-19.85
188	171.93988737	16.06
234	247.74279358	-13.74
250	290.89466396	-40.89
330	341.60976340	-11.61
471	472.21038843	-1.21
349	376.47121226	-27.47
436	451.49608054	-15.5
252	291.90853629	-39.91
385	410.24819435	-25.25
412	396.98935087	15.01
357	384.91222555	-27.91
450	442.76908513	7.23
490	481.13088274	8.87
280	300.12931885	-20.13
293	322.00050896	-29.0
420	404.97671222	15.02
465	473.97000476	-8.97
153	169.63018743	-16.63
368	396.35487592	-28.35

Mean Square Error = 484.791971

Desired Output	Predict	Error
251	266.25390738	-15.25
390	332.72856882	57.27
333	319.82713896	13.17
311	306.47614528	4.52
460	439.11211706	20.89
232	222.89310058	9.11
294	294.15810743	-0.16
291	287.12558804	3.87
296	283.15801421	12.84
288	285.67329041	2.33
291	289.60377316	1.4
401	380.84274381	20.16
156	167.22073600	-11.22
365	345.92316476	19.08
404	381.77576682	22.22
350	271.35819046	78.64
280	246.73801662	33.26

328	321.70336153	6.3
475	471.58285463	3.42
424	393.06901944	30.93
455	445.86930302	9.13
305	293.39684567	11.6
153	166.12742010	-13.13
468	471.70280807	-3.7
428	373.92079785	54.08
486	476.66489290	9.34
337	325.94585177	11.05
351	332.58374926	18.42
234	223.14094560	10.86
469	457.32093056	11.68
211	220.39430763	-9.39

Mean Square Error = 591.012

Desired Output	Predict	Error
288	284.33176360	3.67
345	325.65276568	19.35
490	472.19013158	17.81
320	310.38365200	9.62
313	303.92653984	9.07
309	300.55494205	8.45
294	289.76571966	4.23
218	204.54569246	13.45
300	247.48418445	52.52
290	274.75347724	15.25
462	452.08562782	9.91
217	205.69802615	11.3
240	234.37587567	5.62
322	314.08393391	7.92
253	267.84844581	-14.85
490	471.85737727	18.14
431	418.40512243	12.59
154	165.19715226	-11.2
325	317.76924341	7.23
376	353.26808662	22.73
410	387.38873599	22.61
322	310.37177241	11.63
315	304.77620734	10.22
466	451.22766064	14.77
481	471.65871616	9.34
250	241.96980188	8.03
450	441.27165446	8.73
224	172.43181484	51.57
440	429.70270862	10.3
245	232.20159120	12.8
153	165.04387711	-12.04

Mean Square Error = 326.93641

Desired Output	Predict	Error
209	322.85407386	-113.85
208	322.92423882	-114.92
303	355.56295411	-52.56
310	360.54864957	-50.55
246	327.72551476	-81.73
172	178.09805527	-6.1

478	454.77394110	23.23
237	283.47763219	-46.48
465	438.03105445	26.97
427	415.48508833	11.51
339	371.70733391	-32.71
156	177.29561139	-21.3
252	339.26744241	-87.27
341	377.77999954	-36.78
245	326.82925810	-81.83
208	323.46529115	-115.47
216	322.25287679	-106.25
153	176.93264103	-23.93
242	323.96579393	-81.97
469	445.80948938	23.19
307	363.65883394	-56.66
270	321.32219987	-51.32
243	324.52617720	-81.53
422	411.60503007	10.39
489	458.42698768	30.57
410	384.25715735	25.74
221	322.01871817	-101.02
490	459.70033978	30.3
470	445.63402620	24.37
467	444.06405763	22.94
165	177.73249796	-12.73

Mean Square Error = 3806.620939

Desired Output	Predict	Error
288	262.78983524	25.21
427	443.44192564	-16.44
314	315.12838998	-1.13
405	387.06245246	17.94
420	428.25746638	-8.26
314	268.29998547	45.7
490	480.18290739	9.82
215	232.82969251	-17.83
377	395.77406877	-18.77
397	425.84279519	-28.84
481	478.76479186	2.24
236	252.14597647	-16.15
405	415.35139090	-10.35
370	324.11635799	45.88
209	235.92047950	-26.92
413	411.06302422	1.94
270	263.67891591	6.32
488	479.96978923	8.03
323	340.65648985	-17.66
472	479.57590476	-7.58
459	469.60960574	-10.61
390	380.94148219	9.06
328	353.28781251	-25.29
381	407.94970830	-26.95
215	230.71875178	-15.72
305	319.93930185	-14.94
361	384.25100297	-23.25
288	298.17851732	-10.18
155	168.69883271	-13.7
471	473.58405938	-2.58
393	422.04692421	-29.05

Mean Square Error = 399.274387

Desired Output	Predict	Error
297	305.33437024	-8.33
247	271.13225581	-24.13
335	357.52710891	-22.53
478	479.71992144	-1.72
319	345.76888846	-26.77
344	369.61900421	-25.62
430	448.79732888	-18.8
457	460.48615324	-3.49
153	168.50427373	-15.5
390	417.47134896	-27.47
230	242.71678985	-12.72
259	291.91783842	-32.92
488	479.55850132	8.44
240	245.19075440	-5.19
465	471.59655526	-6.6
214	234.49488801	-20.49
230	233.71588675	-3.72
433	452.46589318	-19.47
471	474.08590919	-3.09
470	473.90596752	-3.91
235	243.72931997	-8.73
417	421.43604573	-4.44
210	238.70851943	-28.71
238	241.56889556	-3.57
235	242.03642904	-7.04
328	355.24071436	-27.24
362	361.61837208	0.38
490	480.28536888	9.71
326	325.52221504	0.48
253	289.76939479	-36.77
153	168.17991034	-15.18

Mean Square Error = 307.167174

Desired Output	Predict	Error
438	433.16960632	4.83
240	247.41911844	-7.42
445	440.90535942	4.09
153	168.45470542	-15.45
284	300.83680655	-16.84
484	480.02764493	3.97
489	481.54749514	7.45
265	294.06039244	-29.06
490	481.77066103	8.23
208	233.09331468	-25.09
296	327.23162259	-31.23
444	459.53784963	-15.54
468	477.26143958	-9.26
234	251.43564150	-17.44
303	312.61023650	-9.61
290	315.00481413	-25.0
225	233.06850170	-8.07
248	264.44372559	-16.44
215	234.26339017	-19.26
232	247.31897463	-15.32

447	468.35464768	-21.35
292	306.61933313	-14.62
486	480.50950433	5.49
168	170.35848784	-2.36
353	380.50977416	-27.51
308	331.50175770	-23.5
444	458.14883555	-14.15
153	168.24489777	-15.24
156	169.26617164	-13.27
214	237.93147425	-23.93
412	428.59938301	-16.6

Mean Square Error = 289.245174

Desired Output	Predict	Error
214	218.02037038	-4.02
467	455.93310280	11.07
262	269.89234612	-7.89
245	232.23270701	12.77
303	299.88147148	3.12
209	218.58019316	-9.58
300	288.12724931	11.87
483	474.21769004	8.78
255	246.31381204	8.69
317	308.88941103	8.11
398	340.52768102	57.47
230	222.82233666	7.18
213	220.32233804	-7.32
260	246.89137470	13.11
238	241.97454114	-3.97
178	167.77377899	10.23
298	299.22882108	-1.23
456	460.76578821	-4.77
329	312.60912562	16.39
164	166.58121689	-2.58
311	299.70925450	11.29
468	459.48973816	8.51
340	317.72469246	22.28
256	268.20759166	-12.21
333	320.58787404	12.41
340	267.34314952	72.66
247	243.53869535	3.46
441	430.23880949	10.76
209	218.48765379	-9.49
236	224.98242186	11.02
437	424.31214546	12.69

Mean Square Error = 374.313765

Desired Output	Predict	Error
317	351.08066910	-34.08
460	475.97711116	-15.98
390	417.29178506	-27.29
327	356.37027863	-29.37
328	275.57607192	52.42
259	210.91652563	48.08
416	436.64828008	-20.65
211	243.58291223	-32.58
327	338.49399397	-11.49

325	361.15943788	-36.16
232	243.01592689	-11.02
209	240.11482110	-31.11
207	174.33170153	32.67
210	242.94270094	-32.94
307	332.76826636	-25.77
435	446.15435349	-11.15
374	397.42843859	-23.43
276	299.89721077	-23.9
274	298.71422271	-24.71
433	418.80700852	14.19
360	393.57158155	-33.57
300	334.98531998	-34.99
246	269.99977343	-24.0
294	314.37289449	-20.37
396	421.73642124	-25.74
454	449.27576670	4.72
331	356.85191032	-25.85
380	345.56407393	34.44
360	304.78816124	55.21
268	296.97600083	-28.98
464	477.05007664	-13.05

Mean Square Error = 868.15941

Desired Output	Predict	Error
156	165.54940532	-9.55
470	475.59723893	-5.6
215	210.77473569	4.23
305	300.45979022	4.54
382	363.02772362	18.97
370	347.99372956	22.01
470	461.88558783	8.11
241	218.28870637	22.71
322	305.21797757	16.78
209	218.13815125	-9.14
306	294.01858802	11.98
249	252.60794407	-3.61
160	165.79081623	-5.79
286	273.58543917	12.41
233	219.57002273	13.43
356	337.26829672	18.73
319	306.23077924	12.77
315	305.19946939	9.8
153	164.87853841	-11.88
271	268.54844035	2.45
451	451.58567557	-0.59
244	226.78532886	17.21
246	191.74772457	54.25
192	169.77583493	22.22
308	302.49816903	5.5
315	301.70532750	13.29
308	296.50463695	11.5
212	219.39370249	-7.39
448	441.21650338	6.78
485	476.14347809	8.86
470	461.57800353	8.42

Mean Square Error = 243.739619

***** Mean Square Error Average : 769.1261 *****

243.739619

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.32

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
436	458.14857893	-22.15
245	253.69646281	-8.7
296	311.39381228	-15.39
356	385.03439903	-29.03
331	356.22219735	-25.22
424	439.74680848	-15.75
472	478.66221637	-6.66
490	478.77555209	11.22
249	281.09272493	-32.09
337	366.29578344	-29.3
308	332.81156715	-24.81
469	471.79686517	-2.8
302	317.60176793	-15.6
252	292.93156960	-40.93
210	239.66729545	-29.67
405	420.87789362	-15.88
284	298.16317359	-14.16
450	465.79715086	-15.8
471	473.08862873	-2.09
317	340.15100952	-23.15
390	422.27697066	-32.28
447	464.17782509	-17.18
468	475.93542480	-7.94
244	250.99482329	-6.99
488	478.33089573	9.67
427	450.83004057	-23.83
294	321.33215569	-27.33
308	327.98844446	-19.99
210	240.46364487	-30.46
252	292.93822953	-40.94
370	396.00241390	-26.0

Mean Square Error = 509.364371

Desired Output	Predict	Error
413	408.83770674	4.16
315	339.25008563	-24.25
242	247.69245879	-5.69
246	201.90139659	44.1
420	408.65484780	11.35
339	365.04144842	-26.04
309	337.49734539	-28.5
329	355.46871324	-26.47
422	437.39048538	-15.39
470	471.94513824	-1.95
268	294.13571841	-26.14

370	333.03937210	36.96
483	481.22440653	1.78
460	474.28844727	-14.29
467	468.57270130	-1.57
209	237.99529172	-29.0
305	325.66865934	-20.67
235	246.12005536	-11.12
393	417.84333432	-24.84
490	481.36050379	8.64
467	470.22641571	-3.23
153	169.00454466	-16.0
293	321.32544605	-28.33
460	460.19162754	-0.19
236	256.24479485	-20.24
256	290.66407678	-34.66
404	422.53668050	-18.54
248	266.06323469	-18.06
298	330.07097013	-32.07
317	346.82002677	-29.82
288	265.99238235	22.01

Mean Square Error = 491.544019

Desired Output	Predict	Error
416	291.05309801	124.95
468	336.67332322	131.33
240	175.27638216	64.72
410	288.06194934	121.94
296	219.85359833	76.15
232	176.97049943	55.03
481	349.61084036	131.39
232	177.14668977	54.85
466	327.34273409	138.66
313	230.55572599	82.44
333	237.80288567	95.2
471	333.24675623	137.75
341	249.80353709	91.2
156	165.26602551	-9.27
385	276.01499946	108.99
390	271.43675913	118.56
156	165.25105972	-9.25
455	319.13314209	135.87
297	218.00194806	79.0
239	185.95930009	53.04
454	311.83822996	142.16
292	207.16114284	84.84
280	182.92717359	97.07
212	173.40935997	38.59
153	165.14164327	-12.14
245	179.43400674	65.57
209	173.13306110	35.87
153	165.20429040	-12.2
489	350.94502988	138.05
215	172.56075759	42.44
305	221.68411881	83.32

Mean Square Error = 8678.058542

Desired Output	Predict	Error
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465	454.55138249	10.45
259	267.03805842	-8.04
291	287.25374866	3.75
231	220.50019175	10.5
214	214.24586101	-0.25
490	476.46684556	13.53
306	294.60114123	11.4
300	300.85927504	-0.86
315	300.10165446	14.9
231	222.65907731	8.34
485	475.87692205	9.12
178	170.00586917	7.99
215	212.12484169	2.88
160	169.72484659	-9.72
214	215.04591339	-1.05
246	238.84740010	7.15
490	476.29326801	13.71
470	460.19447254	9.81
155	169.65135912	-14.65
234	223.71968267	10.28
427	401.17275902	25.83
398	342.86090106	55.14
470	460.69590190	9.3
430	408.80452145	21.2
340	263.75024791	76.25
333	323.52678941	9.47
450	417.38330654	32.62
265	267.10317464	-2.1
253	265.19427496	-12.19
470	468.65274920	1.35
288	284.50309583	3.5

Mean Square Error = 425.434952

Desired Output	Predict	Error
315	342.16238048	-27.16
238	259.22682037	-21.23
360	304.79026231	55.21
274	293.60704577	-19.61
456	474.61331552	-18.61
481	480.02007904	0.98
490	481.77782323	8.22
271	292.73776404	-21.74
153	168.97135317	-15.97
444	460.04181349	-16.04
417	417.46184915	-0.46
465	474.67225542	-9.67
294	315.85222172	-21.85
213	238.26013732	-25.26
156	169.80504773	-13.81
308	321.12630661	-13.13
311	338.15750876	-27.16
165	170.95087858	-5.95
431	451.34567415	-20.35
237	195.17414926	41.83
262	291.73561952	-29.74
471	475.02764930	-4.03
225	227.90329121	-2.9
215	231.01404004	-16.01
490	481.95902370	8.04

208	235.78113066	-27.78
153	168.69707590	-15.7
305	330.04923057	-25.05
328	356.07682191	-28.08
290	313.61978734	-23.62
390	413.52612862	-23.53

Mean Square Error = 493.741987

Desired Output	Predict	Error
488	475.01413847	12.99
396	372.91760594	23.08
444	432.55103086	11.45
235	217.98161953	17.02
325	316.26503491	8.73
208	209.69828129	-1.7
211	216.76644698	-5.77
357	339.33266430	17.67
255	246.13851597	8.86
327	306.25661008	20.74
397	381.82787230	15.17
484	472.32606227	11.67
314	300.61287806	13.39
168	170.67965542	-2.68
238	218.22069466	19.78
478	475.77900119	2.22
451	449.53116713	1.47
253	265.61246085	-12.61
471	461.17874533	9.82
153	170.52690977	-17.53
475	469.47538098	5.52
311	299.58890684	11.41
374	346.80206015	27.2
294	294.83119440	-0.83
447	455.42914171	-8.43
270	244.01708308	25.98
420	378.70264905	41.3
234	216.27118784	17.73
361	339.47399614	21.53
490	476.03187154	13.97
240	220.85982694	19.14

Mean Square Error = 266.504958

Desired Output	Predict	Error
215	236.32099920	-21.32
250	267.00539946	-17.01
490	477.86615581	12.13
153	178.34060646	-25.34
303	344.33786192	-41.34
288	329.13975293	-41.14
349	399.85411605	-50.85
236	256.93852854	-20.94
353	403.59266006	-50.59
327	376.02906287	-49.03
234	265.45524772	-31.46
401	436.92801580	-35.93
314	280.82084036	33.18
192	178.98727444	13.01

164	178.68627335	-14.69
344	397.88085734	-53.88
468	471.32555006	-3.33
464	474.31406284	-10.31
300	339.61826185	-39.62
325	371.65629526	-46.66
433	431.48420523	1.52
209	243.45255367	-34.45
360	413.95525111	-53.96
390	373.13579576	16.86
291	336.12789007	-45.13
445	445.03059250	-0.03
230	237.77737012	-7.78
286	319.85557156	-33.86
351	403.06243372	-52.06
240	267.20618963	-27.21
319	368.10380051	-49.1

Mean Square Error = 1191.818303

Desired Output	Predict	Error
328	320.31784631	7.68
381	320.62632673	60.37
433	321.28208017	111.72
410	320.34647986	89.65
322	320.30962891	1.69
465	322.87058333	142.13
247	319.25235999	-72.25
233	318.45429358	-85.45
294	319.80703805	-25.81
440	321.60953892	118.39
230	318.44988873	-88.45
380	320.39722280	59.6
243	318.66045091	-75.66
259	308.33060362	-49.33
310	320.09246567	-10.09
246	319.15871709	-73.16
209	318.21178104	-109.21
315	320.16356063	-5.16
323	320.12963075	2.87
462	322.95278121	139.05
232	318.10908487	-86.11
247	319.32924309	-72.33
153	161.77089282	-8.77
412	322.40440859	89.6
362	320.88003358	41.12
486	327.90337096	158.1
470	323.87036860	146.13
307	320.18583594	-13.19
208	318.43217088	-110.43
441	321.58777590	119.41
319	320.25443413	-1.25

Mean Square Error = 7204.363968

Desired Output	Predict	Error
290	288.33964282	1.66
448	462.62269720	-14.62
300	267.38538275	32.61

330	342.69919439	-12.7
276	296.21542906	-20.22
209	239.49902351	-30.5
382	407.87758752	-25.88
154	168.95287562	-14.95
245	259.62810959	-14.63
153	167.96160784	-14.96
209	239.97152399	-30.97
412	398.45928610	13.54
326	327.13211910	-1.13
213	240.10645573	-27.11
307	330.27972323	-23.28
247	267.75224396	-20.75
320	349.22982589	-29.23
260	266.61473204	-6.61
475	480.78788995	-5.79
221	233.02120153	-12.02
333	350.55106690	-17.55
437	449.51260892	-12.51
457	453.11058560	3.89
459	465.51387798	-6.51
156	169.18940010	-13.19
214	239.88885480	-25.89
469	470.66196586	-1.66
303	310.19890734	-7.2
280	298.03092121	-18.03
335	363.03203080	-28.03
328	358.91990490	-30.92

Mean Square Error = 371.819826

Desired Output	Predict	Error
303	300.02040026	2.98
224	169.75453104	54.25
172	166.34308969	5.66
216	205.81482609	10.19
376	356.68662695	19.31
368	349.89266664	18.11
340	317.91887209	22.08
241	216.52673597	24.47
457	447.96772563	9.03
188	166.59979515	21.4
290	285.43376456	4.57
230	218.98502654	11.01
350	271.21178766	78.79
489	476.16207889	12.84
486	476.02530049	9.97
322	314.85824886	7.14
365	346.21800004	18.78
377	349.95442619	27.05
211	217.63132466	-6.63
218	203.33808881	14.66
251	266.73274895	-15.73
438	399.40312308	38.6
435	430.55790339	4.44
207	168.26269692	38.74
250	267.20896074	-17.21
470	476.07702669	-6.08
478	471.31816587	6.68
322	317.28540217	4.71

345		330.58689104		14.41
428		378.28552415		49.71
288		275.21293414		12.79

Mean Square Error = 642.681194

***** Mean Square Error Average : 2027.5332 *****
266.504958

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.33

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
450		321.25192630		128.75
413		320.47384151		92.53
490		321.49130784		168.51
390		319.82734171		70.17
234		243.31350570		-9.31
468		321.45086727		146.55
471		321.43810711		149.56
486		321.49022843		164.51
454		321.30166091		132.7
208		223.22099436		-15.22
412		320.61735218		91.38
233		237.40773159		-4.41
213		227.74209103		-14.74
483		321.49387269		161.51
485		321.49199381		163.51
457		321.33898624		135.66
239		268.14209633		-29.14
308		313.83985969		-5.84
290		296.47222167		-6.47
231		238.22493332		-7.22
488		321.47943101		166.52
356		319.58825273		36.41
467		321.42293064		145.58
240		236.00875754		3.99
290		307.64311876		-17.64
327		314.66767417		12.33
280		268.38595794		11.61
156		169.50676102		-13.51
307		313.55397688		-6.55
490		321.49283104		168.51
490		321.48652288		168.51

Mean Square Error = 10837.472965

Desired Output		Predict		Error
416		320.35665122		95.64
325		315.25371586		9.75
470		321.28533000		148.71
459		321.16335157		137.84
340		315.13846711		24.86

374	318.56749676	55.43
340	280.42063288	59.58
270	227.77976318	42.22
172	174.22843678	-2.23
390	319.71387687	70.29
376	319.19308121	56.81
350	289.29624693	60.7
225	214.89003551	10.11
470	321.33588125	148.66
333	315.71867057	17.28
192	179.17573716	12.82
333	313.61668388	19.38
245	241.07755058	3.92
235	225.20699831	9.79
300	251.36108472	48.64
241	226.48721159	14.51
153	171.21636286	-18.22
252	279.88251798	-27.88
360	302.33001768	57.67
303	308.72755844	-5.73
209	217.95858835	-8.96
153	170.03148132	-17.03
377	318.61098020	58.39
329	314.47819638	14.52
328	263.47465436	64.53
305	308.52377221	-3.52

Mean Square Error = 3535.485103

Desired Output	Predict	Error
265	292.34534878	-27.35
300	315.91273339	-15.91
215	231.50380681	-16.5
470	474.40115320	-4.4
319	346.55081912	-27.55
156	168.96620571	-12.97
217	229.12423793	-12.12
330	337.85795277	-7.86
360	389.22686222	-29.23
465	472.04583646	-7.05
280	296.94947156	-16.95
468	473.61417736	-5.61
390	374.89194427	15.11
260	267.75646170	-7.76
405	381.50875350	23.49
211	240.97784093	-29.98
438	427.87883787	10.12
326	322.71917942	3.28
247	271.08217657	-24.08
215	234.39700274	-19.4
236	255.54633840	-19.55
430	446.64700010	-16.65
370	390.90718200	-20.91
250	289.57089159	-39.57
259	291.92343991	-32.92
154	168.98168899	-14.98
462	471.00121260	-9.0
349	374.59649141	-25.6
381	406.66527497	-25.67
445	436.27722688	8.72

398		368.37412627		29.63
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Mean Square Error = 412.253755

Desired Output	Predict	Error
396	422.36109430	-26.36
361	385.18367787	-24.18
428	417.29219575	10.71
256	291.53807224	-35.54
323	343.33131237	-20.33
427	448.66647032	-21.67
314	271.98148602	42.02
345	370.92288264	-25.92
246	202.73316938	43.27
450	465.84745894	-15.85
209	235.46572919	-26.47
317	340.86013656	-23.86
460	476.28155854	-16.28
469	474.34189524	-5.34
288	311.28736856	-23.29
300	329.42141804	-29.42
466	470.00500721	-4.01
393	422.63078779	-29.63
268	293.79874603	-25.8
317	343.69223748	-26.69
232	244.40859933	-12.41
397	429.17357733	-32.17
417	420.54430672	-3.54
308	332.68906425	-24.69
262	293.46973277	-31.47
471	474.90717225	-3.91
322	349.50662332	-27.51
276	296.04709686	-20.05
240	244.50528181	-4.51
208	233.78348707	-25.78
253	291.37774679	-38.38

Mean Square Error = 628.329516

Desired Output	Predict	Error
471	474.36835422	-3.37
382	419.83564337	-37.84
209	241.87027380	-32.87
237	177.66345698	59.34
331	354.47218299	-23.47
385	421.56465182	-36.56
490	479.82969444	10.17
471	473.75682085	-2.76
327	353.28568791	-26.29
291	316.44133474	-25.44
465	467.75020070	-2.75
315	338.01157435	-23.01
420	436.45203683	-16.45
353	386.97461327	-33.97
213	241.95054331	-28.95
297	308.90542361	-11.91
178	173.07144105	4.93
481	478.43896407	2.56
274	299.58270235	-25.58

271	298.85841475	-27.86
335	365.24934528	-30.25
440	462.74844479	-22.75
250	271.53353695	-21.53
216	228.60911686	-12.61
153	172.94408462	-19.94
207	173.87418176	33.13
209	240.36714108	-31.37
313	343.14015849	-30.14
436	460.18086578	-24.18
404	435.45981082	-31.46
153	172.93990400	-19.94

Mean Square Error = 683.857013

Desired Output	Predict	Error
248	274.20071915	-26.2
296	329.89399483	-33.89
286	303.35422436	-17.35
153	172.35498794	-19.35
253	292.79318557	-39.79
405	414.04195476	-9.04
490	480.58959476	9.41
218	226.85238070	-8.85
370	328.66672264	41.33
488	480.22451066	7.78
288	305.73742985	-17.74
236	247.54309211	-11.54
470	472.75075623	-2.75
215	232.81806523	-17.82
315	340.46582993	-25.47
322	354.24765862	-32.25
270	267.88354088	2.12
232	241.55233923	-9.55
188	173.08115358	14.92
293	323.33832442	-30.34
490	480.71613871	9.28
467	471.27112735	-4.27
168	172.75833991	-4.76
298	331.71536282	-33.72
294	327.49175877	-33.49
243	249.81524941	-6.82
357	385.69936286	-28.7
291	320.36351775	-29.36
245	254.05732034	-9.06
484	479.10051429	4.9
290	316.68819627	-26.69

Mean Square Error = 475.736652

Desired Output	Predict	Error
325	353.68444920	-28.68
311	336.67464195	-25.67
303	318.78632428	-15.79
153	168.75880887	-15.76
247	268.78862171	-21.79
490	480.60408970	9.4
288	311.13953024	-23.14
221	225.11675204	-4.12

315	325.60861543	-10.61
319	339.40754349	-20.41
460	465.23938401	-5.24
328	357.79891401	-29.8
303	312.65243700	-9.65
211	240.39139892	-29.39
214	234.87116310	-20.87
441	459.65664520	-18.66
230	242.88046081	-12.88
490	480.61458814	9.39
447	463.95169019	-16.95
465	475.99457399	-10.99
478	478.50193265	-0.5
232	242.38261189	-10.38
410	402.32422387	7.68
240	257.39735250	-17.4
444	461.66871106	-17.67
456	474.24738468	-18.25
457	468.89882183	-11.9
215	232.42737081	-17.43
390	417.19118829	-27.19
410	433.58370708	-23.58
230	242.63215182	-12.63

Mean Square Error = 321.2096

Desired Output	Predict	Error
475	484.66794556	-9.67
242	222.12264740	19.88
365	355.33830469	9.66
470	483.66975699	-13.67
448	454.37150884	-6.37
259	233.49407404	25.51
255	242.63351510	12.37
475	478.69081408	-3.69
447	462.77278393	-15.77
153	164.64798800	-11.65
433	425.05998656	7.94
322	300.60131275	21.4
153	164.21427220	-11.21
302	286.62697784	15.37
337	332.36844779	4.63
249	237.10108805	11.9
468	481.15363434	-13.15
433	395.20868024	37.79
246	232.36847633	13.63
245	227.08739888	17.91
294	288.94290234	5.06
284	266.94463380	17.06
310	298.95995865	11.04
333	325.16381261	7.84
165	165.50645347	-0.51
455	453.53157370	1.47
339	329.28899965	9.71
489	483.22991441	5.77
296	279.50878974	16.49
251	255.03481596	-4.03
380	329.63837862	50.36

Mean Square Error = 278.034816

Desired Output	Predict	Error
315	309.00577870	5.99
351	330.65078432	20.35
246	242.66007440	3.34
464	467.61074725	-3.61
427	401.92174913	25.08
328	325.40288216	2.6
401	381.62439934	19.38
209	217.21892153	-8.22
252	267.88060009	-15.88
294	280.12491931	13.88
470	462.19071556	7.81
224	177.72741585	46.27
311	300.27504305	10.72
368	348.23864698	19.76
288	243.47908327	44.52
292	277.11204874	14.89
444	435.97384596	8.03
472	476.42166988	-4.42
435	429.11260554	5.89
437	423.10593334	13.89
156	166.61768969	-10.62
210	219.48141685	-9.48
214	217.71828567	-3.72
209	217.04191788	-8.04
478	477.36788955	0.63
307	301.40193168	5.6
160	166.65566491	-6.66
244	226.77465614	17.23
305	294.34465796	10.66
451	452.92608605	-1.93
247	245.69664495	1.3

Mean Square Error = 257.863806

Desired Output	Predict	Error
320	346.89040161	-26.89
422	432.48737358	-10.49
344	368.58329904	-24.58
305	324.76061092	-19.76
481	482.06198683	-1.06
431	442.78695848	-11.79
469	464.67886622	4.32
153	170.99162707	-17.99
214	238.71248108	-24.71
412	414.45879009	-2.46
489	482.53076865	6.47
341	367.75249832	-26.75
155	171.79301196	-16.79
309	335.92960503	-26.93
210	242.19196896	-32.19
156	171.70838942	-15.71
308	319.95579411	-11.96
235	247.26088230	-12.26
238	246.64758636	-8.65
234	247.01284731	-13.01
238	265.67064345	-27.67
230	245.07542434	-15.08

314	319.88741602	-5.89
362	361.44129437	0.56
234	251.03560975	-17.04
306	324.84978728	-18.85
208	234.40950216	-26.41
420	397.05829125	22.94
164	172.32091079	-8.32
212	241.03052760	-29.03
294	314.63288496	-20.63

Mean Square Error = 346.671403

***** Mean Square Error Average : 1777.6915 *****
257.863806

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.34

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
456	471.90199658	-15.9
333	329.80416384	3.2
412	408.80221100	3.2
250	240.36990471	9.63
290	280.17406750	9.83
238	222.29993649	15.7
484	482.11089391	1.89
444	443.53710990	0.46
478	480.55317334	-2.55
210	218.87581926	-8.88
240	239.33963763	0.66
246	236.34852403	9.65
246	205.29234628	40.71
209	216.39736475	-7.4
156	166.02325193	-10.02
337	333.45111892	3.55
224	179.59620579	44.4
294	290.95922589	3.04
156	165.87326726	-9.87
405	379.84896193	25.15
236	227.37143467	8.63
470	469.70925490	0.29
253	257.56303931	-4.56
209	216.18775681	-7.19
255	243.24218153	11.76
333	324.96483822	8.04
153	165.20018937	-12.2
326	306.97157122	19.03
457	440.75423621	16.25
401	391.82840086	9.17
309	305.07934946	3.92

Mean Square Error = 214.578745

----- Variable -----

Desired Output | Predict | Error

308	293.79224582	14.21
377	349.12520279	27.87
376	356.80947853	19.19
465	454.50689829	10.49
294	293.33212933	0.67
490	477.10130794	12.9
284	271.02747260	12.97
288	282.43840462	5.56
323	307.62065863	15.38
345	330.24735368	14.75
310	298.60675425	11.39
427	408.68053644	18.32
208	208.59852867	-0.6
468	472.65665202	-4.66
215	209.05731745	5.94
168	168.64841578	-0.65
300	298.85825583	1.14
381	361.60200820	19.4
153	168.35753383	-15.36
242	218.01658562	23.98
288	273.86742678	14.13
207	170.71966843	36.28
488	476.01342964	11.99
214	212.34863343	1.65
417	372.65499207	44.35
471	461.20726889	9.79
260	244.55987285	15.44
253	263.37652193	-10.38
340	318.07674865	21.92
215	207.30759143	7.69
420	368.81893790	51.18

Mean Square Error = 361.907119

Desired Output	Predict	Error
153	154.94174544	-1.94
330	318.02446257	11.98
165	157.60617392	7.39
315	317.72586312	-2.73
209	296.24269153	-87.24
454	320.42637943	133.57
433	320.05230439	112.95
153	156.12883908	-3.13
212	297.23438525	-85.23
232	301.76822496	-69.77
233	306.42585220	-73.43
490	320.94406445	169.06
471	320.75623265	150.24
291	317.54749677	-26.55
478	320.85780442	157.14
451	320.73685321	130.26
427	320.48313487	106.52
328	318.67887030	9.32
213	296.56533011	-83.57
393	320.26998634	72.73
448	320.68611985	127.31
315	318.74070702	-3.74
468	320.76413680	147.24
155	156.49813194	-1.5

444		320.65359741		123.35
188		161.82738083		26.17
232		306.56566434		-74.57
274		316.63516418		-42.64
490		320.93350546		169.07
210		297.12551514		-87.13
216		295.34856572		-79.35

Mean Square Error = 8930.122729

Desired Output		Predict		Error
154		166.94719676		-12.95
430		446.75867103		-16.76
481		482.55231511		-1.55
218		226.99864035		-9.0
292		304.66925406		-12.67
464		478.34806501		-14.35
344		369.11134012		-25.11
249		280.04050067		-31.04
259		292.83708992		-33.84
243		245.37482384		-2.37
247		268.01708057		-21.02
160		167.95523576		-7.96
280		296.92871884		-16.93
230		242.35903307		-12.36
424		434.39759821		-10.4
245		258.64492703		-13.64
441		458.47098135		-17.47
447		467.67081202		-20.67
490		483.02466149		6.98
374		392.98717749		-18.99
413		408.84011825		4.16
390		360.42764885		29.57
252		292.14281491		-40.14
225		228.63921121		-3.64
405		383.75491808		21.25
404		425.11894104		-21.12
231		241.04686045		-10.05
450		465.50158153		-15.5
172		169.74176845		2.26
489		482.46457633		6.54
302		318.40530115		-16.41

Mean Square Error = 325.677516

Desired Output		Predict		Error
311		299.59005279		11.41
475		471.05401537		3.95
208		207.78213861		0.22
410		388.25046801		21.75
294		289.24529473		4.75
328		321.34327219		6.66
450		418.76819945		31.23
307		299.13818245		7.86
490		478.16770630		11.83
455		444.63916972		10.36
327		310.57096790		16.43
296		296.19014965		-0.19
398		345.63685890		52.36

320	314.34195921	5.66
460	464.39042519	-4.39
192	168.99211098	23.01
319	306.15765174	12.84
213	213.33980526	-0.34
300	286.42420107	13.58
293	290.61527340	2.38
259	206.84055288	52.16
490	477.21938517	12.78
349	334.19842091	14.8
396	376.36034887	19.64
368	351.01420868	16.99
211	215.65452618	-4.65
239	243.83458385	-4.83
410	355.33429041	54.67
303	299.06842433	3.93
178	168.24465404	9.76
153	167.83884227	-14.84

Mean Square Error = 421.2801

Desired Output	Predict	Error
286	265.85935839	20.14
306	290.07030422	15.93
305	290.07827352	14.92
459	460.70063232	-1.7
270	240.79265619	29.21
471	467.66742807	3.33
221	210.78461185	10.22
211	218.35889064	-7.36
280	252.54281955	27.46
153	166.24644924	-13.25
437	434.48796387	2.51
335	323.25843332	11.74
457	458.15301296	-1.15
361	351.62525692	9.37
462	463.22172915	-1.22
294	273.05890540	20.94
471	469.82345166	1.18
447	447.93094821	-0.93
370	357.96969185	12.03
238	239.39022814	-1.39
241	221.81363539	19.19
288	277.57888746	10.42
340	260.09195838	79.91
328	247.61027663	80.39
470	477.97460859	-7.97
431	430.03381546	0.97
232	224.89276241	7.11
247	238.80926426	8.19
245	230.75135784	14.25
247	237.53032993	9.47
360	352.56478757	7.44

Mean Square Error = 564.991455

Desired Output	Predict	Error
296	318.30134059	-22.3
248	302.64231711	-54.64

472	321.41358298	150.59
153	186.57025673	-33.57
328	319.86211710	8.14
214	256.87130370	-42.87
397	321.15050975	75.85
357	320.79736382	36.2
341	320.57672519	20.42
466	321.34808477	144.65
319	320.07215586	-1.07
250	312.01695030	-62.02
290	317.55762706	-27.56
317	319.98038496	-2.98
251	312.25567662	-61.26
483	321.42420398	161.58
382	321.05432892	60.95
208	259.53723098	-51.54
333	319.59842779	13.4
470	321.37798200	148.62
486	321.42059935	164.58
153	186.49854232	-33.5
470	321.40970907	148.59
230	258.65526817	-28.66
488	321.42247760	166.58
298	318.98016162	-20.98
428	320.96228456	107.04
329	320.39697902	8.6
351	320.77731384	30.22
436	321.28871186	114.71
435	321.19869503	113.8

Mean Square Error = 7695.581074

Desired Output	Predict	Error
305	295.38526034	9.61
230	224.21305538	5.79
156	164.99914519	-9.0
314	295.04744325	18.95
356	344.93823090	11.06
234	225.57555110	8.42
390	355.87061156	34.13
317	309.49674957	7.5
481	479.05566001	1.94
164	165.33350806	-1.33
288	239.23078363	48.77
236	224.53365141	11.47
470	467.24402535	2.76
360	283.73332261	76.27
467	458.58461615	8.42
311	303.74567921	7.25
331	325.22814270	5.77
305	290.90435694	14.1
234	220.57903692	13.42
234	225.09686862	8.9
252	256.17194318	-4.17
214	214.21729020	-0.22
339	326.55966425	12.44
433	425.81238458	7.19
156	165.02804360	-9.03
420	393.05834205	26.94
315	301.63792996	13.36

385	377.36322977	7.64
209	215.00243494	-6.0
231	225.00906310	5.99
416	406.02210834	9.98

Mean Square Error = 399.194897

Desired Output	Predict	Error
240	222.88390441	17.12
468	468.46208374	-0.46
209	217.81716029	-8.82
246	237.74191762	8.26
268	267.38225817	0.62
244	226.88121572	17.12
290	265.58116665	24.42
209	216.90523329	-7.91
390	372.32772786	17.67
240	223.15318421	16.85
440	429.52969679	10.47
303	291.76072738	11.24
353	338.43625199	14.56
469	459.08408971	9.92
217	209.57173145	7.43
271	267.79631270	3.2
307	297.71805352	9.28
314	245.82257944	68.18
469	461.12260856	7.88
486	476.21688027	9.78
422	402.16621475	19.83
308	298.89764494	9.1
153	166.54745916	-13.55
327	308.84409058	18.16
490	476.94679183	13.05
322	318.33401638	3.67
370	305.76482403	64.24
465	449.53430623	15.47
308	303.75919366	4.24
270	241.23564215	28.76
322	316.30646867	5.69

Mean Square Error = 448.671803

Desired Output	Predict	Error
215	232.43183845	-17.43
325	351.70877207	-26.71
445	439.29870359	5.7
438	430.96529928	7.03
315	343.30251132	-28.3
235	243.69265867	-8.69
300	268.56650300	31.43
325	356.23542353	-31.24
460	461.78533094	-1.79
322	328.91694790	-6.92
390	417.26942535	-27.27
475	480.78013213	-5.78
237	185.53425429	51.47
245	256.53612140	-11.54
467	472.51514490	-5.52
262	292.93195041	-30.93

470	472.71391215	-2.71
489	481.31290674	7.69
303	321.45613898	-18.46
215	230.13976014	-15.14
412	394.90799729	17.09
380	345.10099288	34.9
465	474.02120774	-9.02
291	316.63110221	-25.63
365	390.85606168	-25.86
235	246.11024542	-11.11
265	293.12461061	-28.12
490	481.61365704	8.39
350	292.85992526	57.14
485	481.08928150	3.91
362	355.93296167	6.07

Mean Square Error = 528.779539

***** Mean Square Error Average : 1989.0785 *****
214.578745

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.35000000000000003

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
368	353.07451286	14.93
351	334.58645874	16.41
294	292.70780749	1.29
320	313.74485875	6.26
294	277.71938704	16.28
362	335.65224793	26.35
464	466.75729959	-2.76
377	352.19575253	24.8
265	265.41715711	-0.42
323	307.67457495	15.33
433	417.16999849	15.83
470	469.72960073	0.27
256	263.07054571	-7.07
244	227.54669172	16.45
370	308.03960021	61.96
472	477.36086530	-5.36
303	297.99405597	5.01
156	165.78659177	-9.79
250	241.28810344	8.71
214	215.23069915	-1.23
469	458.14427819	10.86
327	304.79194603	22.21
353	339.49714697	13.5
309	301.90816578	7.09
232	222.66163901	9.34
412	402.64302326	9.36
361	343.79045461	17.21
280	269.25469201	10.75
433	390.68391032	42.32

236		230.65582062		5.34
310		298.79100627		11.21

Mean Square Error = 334.29309

Desired Output		Predict		Error
490		393.91554909		96.08
231		226.52771264		4.47
280		193.33127817		86.67
467		378.35647632		88.64
344		342.02722172		1.97
245		223.65684298		21.34
340		325.39099829		14.61
376		350.21129622		25.79
490		393.80167275		96.2
349		342.59735319		6.4
405		342.63629884		62.36
327		335.86859319		-8.87
467		376.09709172		90.9
450		361.70658533		88.29
237		161.26758409		75.73
382		351.77377677		30.23
234		244.17035214		-10.17
315		331.94446055		-16.94
490		393.52564906		96.47
481		392.81665622		88.18
470		379.96496058		90.04
340		284.04082371		55.96
230		195.00106288		35.0
475		387.07511248		87.92
308		329.46538082		-21.47
475		392.84783711		82.15
420		348.28194213		71.72
385		352.06975367		32.93
156		161.24373660		-5.24
470		380.14955855		89.85
294		319.69615853		-25.7

Mean Square Error = 3928.790874

Desired Output		Predict		Error
303		321.23492564		-18.23
417		321.28593680		95.71
153		162.99007794		-9.99
444		321.33298941		122.67
405		321.29477610		83.71
221		320.66927620		-99.67
236		320.96714320		-84.97
213		320.84558123		-107.85
300		321.26615398		-21.27
489		321.41992094		167.58
209		320.81168646		-111.81
224		195.60296151		28.4
471		321.38289999		149.62
243		321.01386309		-78.01
214		320.80197039		-106.8
456		321.36898181		134.63
240		320.96813004		-80.97
365		321.28481164		43.72

485	321.42533341	163.57
328	321.12473564	6.88
308	321.24832704	-13.25
325	321.27241128	3.73
459	321.35739397	137.64
245	321.06071097	-76.06
290	321.04672898	-31.05
300	321.23807158	-21.24
307	321.25382525	-14.25
486	321.42232681	164.58
247	321.12448954	-74.12
235	320.99794161	-86.0
390	321.34367436	68.66

Mean Square Error = 8605.755658

Desired Output	Predict	Error
288	300.35242385	-12.35
288	308.49398785	-20.49
404	414.19277246	-10.19
325	354.79507309	-29.8
422	430.66774443	-8.67
315	336.80362289	-21.8
450	456.57752600	-6.58
438	419.17095307	18.83
255	266.34439724	-11.34
250	283.89621076	-33.9
268	290.20388762	-22.2
488	482.02557744	5.97
260	265.50261287	-5.5
214	237.63465926	-23.63
469	469.18316290	-0.18
478	479.65150127	-1.65
311	338.84674166	-27.85
381	399.12464696	-18.12
252	285.61705004	-33.62
288	262.96188335	25.04
305	324.53880028	-19.54
447	458.01928979	-11.02
291	312.20634090	-21.21
259	288.67618561	-29.68
322	351.18168697	-29.18
490	482.98592054	7.01
172	172.77624015	-0.78
380	351.19675099	28.8
490	482.95732435	7.04
247	259.06651354	-12.07
313	341.48226348	-28.48

Mean Square Error = 398.144529

Desired Output	Predict	Error
401	321.16232080	79.84
337	320.65074341	16.35
307	319.96925579	-12.97
448	321.51264300	126.49
259	162.02598655	96.97
341	320.69428423	20.31
239	303.50343418	-64.5

294	319.56281967	-25.56
246	156.57880204	89.42
315	320.27537359	-5.28
457	321.52825886	135.47
178	158.37550482	19.62
308	319.38712368	-11.39
208	273.81153806	-65.81
225	253.47111372	-28.47
240	299.58045603	-59.58
292	318.76220569	-26.76
322	320.26292960	1.74
215	265.70676825	-50.71
490	321.78850465	168.21
468	321.67373538	146.33
248	313.11145648	-65.11
460	321.46569598	138.53
293	319.46124769	-26.46
192	157.97596061	34.02
420	321.20074122	98.8
314	307.58563595	6.41
436	321.40938795	114.59
490	321.79067277	168.21
231	290.21244701	-59.21
390	320.29723088	69.7

Mean Square Error = 6803.154742

Desired Output	Predict	Error
465	408.13759308	56.86
235	210.72152470	24.28
211	204.14647035	6.85
486	466.57595946	19.42
155	171.39964779	-16.4
165	171.47014625	-6.47
465	417.55249852	47.45
153	171.31685226	-18.32
153	171.33113705	-18.33
291	281.03263822	9.97
317	305.91609635	11.08
328	311.47319913	16.53
319	311.38754744	7.61
431	418.73352853	12.27
270	231.84720062	38.15
424	400.81151258	23.19
319	313.13651928	5.86
242	212.46361399	29.54
328	309.89447551	18.11
455	435.30592891	19.69
322	290.15157476	31.85
296	281.41691802	14.58
153	171.31176375	-18.31
350	266.76314573	83.24
156	171.41416294	-15.41
208	197.96113995	10.04
329	325.29410090	3.71
270	231.10512530	38.89
410	397.49271081	12.51
333	305.76548366	27.23
413	381.34126346	31.66

Mean Square Error = 776.006771

Desired Output	Predict	Error
330	316.69250777	13.31
212	230.76837979	-18.77
345	318.89022300	26.11
153	167.30142857	-14.3
468	321.39352449	146.61
215	223.57749507	-8.58
290	308.84957793	-18.85
286	302.69237401	-16.69
306	312.78056723	-6.78
253	294.13247323	-41.13
213	229.38965938	-16.39
374	319.85880777	54.14
215	225.85735993	-10.86
471	321.41045573	149.59
331	318.15437770	12.85
489	321.45894476	167.54
288	308.92198620	-20.92
490	321.46646118	168.53
188	174.31435668	13.69
397	320.85497780	76.15
276	299.96569850	-23.97
396	320.60227587	75.4
215	224.32624109	-9.33
303	311.31642666	-8.32
156	169.36030134	-13.36
208	225.53653034	-17.54
471	321.41030704	149.59
210	230.77676034	-20.78
251	294.22673783	-43.23
470	321.40065145	148.6
454	321.26961100	132.73

Mean Square Error = 5980.334794

Desired Output	Predict	Error
339	362.22782894	-23.23
241	250.49762757	-9.5
238	268.21985659	-30.22
444	453.45065088	-9.45
457	449.05970474	7.94
209	240.12428746	-31.12
246	263.57280389	-17.57
232	253.69824253	-21.7
357	380.65212829	-23.65
290	312.23351897	-22.23
246	260.56676440	-14.57
447	456.69342335	-9.69
232	252.62779082	-20.63
481	481.95051548	-0.95
211	242.24255992	-31.24
333	349.00831778	-16.01
440	452.37407014	-12.37
296	325.64612001	-29.65
274	293.44589618	-19.45
247	267.10999167	-20.11
470	483.91777827	-13.92

305	323.48521176	-18.49
370	386.83881999	-16.84
302	316.73259534	-14.73
216	236.39477461	-20.39
234	252.53118019	-18.53
462	468.22701262	-6.23
217	235.70741914	-18.71
252	285.09180374	-33.09
488	483.54203200	4.46
153	168.35649651	-15.36

Mean Square Error = 381.025113

Desired Output	Predict	Error
410	394.42658554	15.57
284	295.37413416	-11.37
207	184.68440943	22.32
209	240.44780371	-31.45
471	471.83363423	-0.83
160	170.19701327	-10.2
390	407.72020858	-17.72
305	329.66012260	-24.66
153	169.21606338	-16.22
466	461.42279338	4.58
398	370.10760209	27.89
210	243.24562319	-33.25
335	358.92069349	-23.92
333	361.47121114	-28.47
360	305.45150028	54.55
470	468.70579699	1.29
390	410.57825342	-20.58
209	240.35872121	-31.36
430	439.19666193	-9.2
230	249.52850123	-19.53
416	429.38057368	-13.38
168	171.29810489	-3.3
311	333.63683655	-22.64
435	440.76136699	-5.76
460	475.61622886	-15.62
478	483.60545652	-5.61
164	170.47152665	-6.47
154	169.94895127	-15.95
153	168.94341608	-15.94
249	268.97100430	-19.97
218	234.86652299	-16.87

Mean Square Error = 436.493313

Desired Output	Predict	Error
298	335.52564960	-37.53
360	339.57997636	20.42
238	327.62607315	-89.63
209	327.21266291	-118.21
240	327.71859362	-87.72
428	338.58536975	89.41
233	328.75986222	-95.76
393	340.87328673	52.13
484	349.59515931	134.4
317	336.88528337	-19.89

245	330.18747618	-85.19
314	331.59787685	-17.6
230	328.58750722	-98.59
271	333.24089679	-62.24
437	343.52399604	93.48
253	332.66478661	-79.66
465	345.93859644	119.06
153	175.80362830	-22.8
209	327.21266291	-118.21
427	342.44764494	84.55
315	334.68127223	-19.68
445	340.29470337	104.71
326	332.52996510	-6.53
468	346.63503812	121.36
328	337.63449537	-9.63
412	337.32896535	74.67
297	328.89012956	-31.89
483	349.62428697	133.38
356	339.26148872	16.74
262	332.96153878	-70.96
451	346.65341293	104.35

Mean Square Error = 6733.322594

***** Mean Square Error Average : 3437.7321 *****
334.29309

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.36

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
335	316.61310448	18.39
365	342.34376052	22.66
486	473.91325377	12.09
405	368.44031970	36.56
469	458.35772129	10.64
241	218.13995565	22.86
218	201.45032342	16.55
467	454.87032536	12.13
478	468.91032815	9.09
156	169.94480855	-13.94
286	277.38236880	8.62
325	315.73157914	9.27
472	474.96316296	-2.96
240	221.63568600	18.36
210	213.60156471	-3.6
207	171.07095148	35.93
238	240.29843712	-2.3
322	301.99233052	20.01
412	363.27823350	48.72
475	467.86117512	7.14
468	457.19905656	10.8
314	299.45377488	14.55
488	472.21563882	15.78

280	275.16974686	4.83
303	299.82488564	3.18
322	316.42339579	5.58
290	270.78189919	19.22
221	200.39002653	20.61
441	425.86521934	15.13
293	293.09890160	-0.1
437	419.63148661	17.37

Mean Square Error = 331.462068

Desired Output	Predict	Error
333	349.27631695	-16.28
244	253.77205793	-9.77
340	342.50915229	-2.51
168	169.21865213	-1.22
303	320.61203602	-17.61
427	442.84184639	-15.84
271	292.04753795	-21.05
470	478.55999610	-8.56
300	316.62611177	-16.63
280	272.33491300	7.67
329	355.19215142	-26.19
390	413.57457925	-23.57
315	337.14721595	-22.15
288	310.38012673	-22.38
319	343.15169125	-24.15
457	465.31513734	-8.32
377	395.24456884	-18.24
236	256.39111607	-20.39
209	240.39306532	-31.39
376	401.02178977	-25.02
248	265.27633478	-17.28
224	180.55733615	43.44
440	455.47996776	-15.48
468	477.76747404	-9.77
490	482.91780429	7.08
208	238.42001275	-30.42
172	169.28151177	2.72
153	168.11566575	-15.12
431	447.77463028	-16.77
381	405.11132596	-24.11
313	342.14979343	-29.15

Mean Square Error = 402.281058

Desired Output	Predict	Error
450	461.87182227	-11.87
215	236.96710529	-21.97
156	168.69438887	-12.69
305	324.92709108	-19.93
156	168.64853366	-12.65
322	353.32032993	-31.32
412	411.45000771	0.55
310	332.27296392	-22.27
481	482.46655554	-1.47
153	168.29824578	-15.3
471	474.39001830	-3.39
165	169.05533451	-4.06

390	410.01467692	-20.01
243	253.47457209	-10.47
300	269.55876342	30.44
288	266.78828663	21.21
467	472.36300612	-5.36
260	268.56770316	-8.57
232	253.93404873	-21.93
398	365.02711966	32.97
156	168.65806545	-12.66
216	236.00089690	-20.0
259	292.27364116	-33.27
153	168.41283516	-15.41
192	172.07345174	19.93
302	316.93023979	-14.93
232	253.44663677	-21.45
428	403.24185689	24.76
410	425.75980578	-15.76
234	254.13650290	-20.14
481	484.52107314	-3.52

Mean Square Error = 351.747058

Desired Output	Predict	Error
331	354.12839316	-23.13
251	304.49774637	-53.5
237	182.50403637	54.5
230	257.16146944	-27.16
382	424.91677257	-42.92
456	475.51350057	-19.51
490	481.18152985	8.82
390	352.06689566	37.93
208	237.04480864	-29.04
234	254.71908440	-20.72
319	362.20350624	-43.2
209	242.72313965	-33.72
268	309.41537661	-41.42
390	360.96964884	29.03
294	325.40413729	-31.4
210	247.01203246	-37.01
250	304.31561871	-54.32
209	242.32736284	-33.33
447	465.53763793	-18.54
164	176.99519791	-13.0
436	460.90687058	-24.91
307	340.85009405	-33.85
433	416.56287943	16.44
290	325.19225428	-35.19
300	340.57410947	-40.57
465	466.26891837	-1.27
317	351.15504439	-34.16
247	280.84247027	-33.84
490	481.35734936	8.64
349	390.32153225	-41.32
245	269.88890049	-24.89

Mean Square Error = 1104.66769

Desired Output	Predict	Error
317	346.60131430	-29.6

328	360.39841294	-32.4
294	323.99713167	-30.0
320	347.19055344	-27.19
465	460.26630628	4.73
490	483.94817424	6.05
247	266.01003662	-19.01
451	470.67179538	-19.67
307	332.31501254	-25.32
353	378.32025560	-25.32
214	238.16910980	-24.17
253	285.94955227	-32.95
470	470.61810784	-0.62
305	325.53727595	-20.54
333	362.26705082	-29.27
341	368.92112168	-27.92
445	430.99214556	14.01
460	476.53328595	-16.53
231	252.97408026	-21.97
209	239.10603795	-30.11
393	414.22075640	-21.22
330	342.64753115	-12.65
214	238.16043649	-24.16
214	238.94121878	-24.94
153	168.04699395	-15.05
308	331.08432671	-23.08
351	374.31194780	-23.31
475	483.71426841	-8.71
288	301.87980671	-13.88
262	290.56535823	-28.57
368	390.97433470	-22.97

Mean Square Error = 515.254045

Desired Output	Predict	Error
296	286.81944690	9.18
468	471.75287590	-3.75
309	304.96991997	4.03
230	222.05774182	7.94
328	324.72611459	3.27
420	369.28801753	50.71
255	241.25980375	13.74
315	300.70318593	14.3
188	168.65854993	19.34
361	339.70280041	21.3
294	295.59449731	-1.59
360	340.28704876	19.71
265	269.48379629	-4.48
155	165.78881153	-10.79
233	221.53841171	11.46
256	267.31338739	-11.31
230	214.79219137	15.21
209	216.99425021	-7.99
232	222.00954179	9.99
211	218.83048350	-7.83
362	333.09718737	28.9
242	223.10952035	18.89
326	304.47932691	21.52
430	405.03666235	24.96
290	289.39647755	0.6
270	241.34490597	28.66

447	452.73038905	-5.73
339	321.21536003	17.78
470	459.38369299	10.62
247	247.00306359	-0.0
245	235.79047629	9.21

Mean Square Error = 286.140216

Desired Output	Predict	Error
160	165.27406737	-5.27
250	237.71436453	12.29
397	379.21661893	17.78
356	334.18664520	21.81
306	294.55930290	11.44
444	430.68421322	13.32
337	324.33793151	12.66
296	299.59668711	-3.6
327	310.06173555	16.94
333	323.62309637	9.38
327	309.81374660	17.19
483	474.91274529	8.09
484	472.37792276	11.62
213	219.96587478	-6.97
209	218.97502490	-9.98
396	371.69897081	24.3
240	229.55280860	10.45
470	459.29485938	10.71
315	302.85636186	12.14
457	430.61231593	26.39
246	237.37732259	8.62
470	471.79455606	-1.79
292	277.07409181	14.93
462	452.17189806	9.83
211	221.69183499	-10.69
253	266.79038287	-13.79
455	443.76492520	11.24
433	413.50833205	19.49
325	321.43451398	3.57
305	301.46772892	3.53
470	459.58785132	10.41

Mean Square Error = 176.474626

Desired Output	Predict	Error
405	385.16081532	19.84
208	232.86624650	-24.87
298	326.86903175	-28.87
259	216.06065729	42.94
350	289.15050379	60.85
215	229.83292145	-14.83
323	343.18806463	-20.19
489	481.02554308	7.97
450	447.40609164	2.59
469	471.87410156	-2.87
270	230.54603324	39.45
308	319.64822815	-11.65
328	353.10731987	-25.11
490	481.33798678	8.66
465	471.68492669	-6.68

178	171.93446836	6.07
340	282.65569580	57.34
422	442.05534175	-20.06
478	481.01748716	-3.02
454	453.45969201	0.54
276	294.79025876	-18.79
314	266.26182481	47.74
370	390.29504810	-20.3
238	237.39563228	0.6
246	263.72027314	-17.72
438	432.69990322	5.3
420	426.59868968	-6.6
370	324.52631092	45.47
448	466.27890854	-18.28
153	167.64774671	-14.65
239	257.09407009	-18.09

Mean Square Error = 666.152503

Desired Output	Predict	Error
471	458.28755015	12.71
459	446.49215662	12.51
245	228.17781103	16.82
303	291.51502704	11.48
213	216.07201768	-3.07
490	475.62422647	14.38
413	357.99771197	55.0
249	254.32215599	-5.32
490	476.05574452	13.94
357	337.65434462	19.35
297	284.48853864	12.51
215	208.77997042	6.22
345	328.30947857	16.69
235	220.48921181	14.51
153	165.54738944	-12.55
466	446.58938331	19.41
311	301.10429123	9.9
410	349.15537481	60.84
236	221.37872408	14.62
294	290.35129524	3.65
274	269.55426952	4.45
444	430.00025568	14.0
344	325.88061278	18.12
380	318.27696521	61.72
246	188.11525666	57.88
471	458.70552373	12.29
404	375.10519685	28.89
252	267.27252085	-15.27
240	220.84901338	19.15
460	433.87786250	26.12
374	344.98227768	29.02

Mean Square Error = 665.474152

Desired Output	Predict	Error
215	251.23094968	-36.23
288	315.89802854	-27.9
360	312.00108923	48.0
212	256.57031970	-44.57

235	263.78108283	-28.78
153	155.90774405	-2.91
385	320.69824399	64.3
154	155.99339405	-1.99
153	155.73295491	-2.73
291	316.70266486	-25.7
231	279.40242324	-48.4
401	320.85570411	80.14
486	321.32651277	164.67
417	320.82540802	96.17
427	320.98382586	106.02
471	321.22771908	149.77
464	321.27917376	142.72
291	316.39756911	-25.4
234	286.89424333	-52.89
424	320.93708793	103.06
308	318.37993813	-10.38
328	299.00779836	28.99
284	315.07567813	-31.08
252	310.70754993	-58.71
489	321.33518298	167.66
416	320.95545381	95.04
490	321.34544921	168.65
488	321.33341628	166.67
435	320.71137729	114.29
217	246.42579199	-29.43
485	321.32930208	163.67

Mean Square Error = 8538.711729

***** Mean Square Error Average : 1303.8365 *****
176.474626

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.37

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
470	463.51641600	6.48
247	232.30781010	14.69
422	407.57447861	14.43
490	479.11024804	10.89
213	215.62845516	-2.63
430	414.86042784	15.14
470	477.65101477	-7.65
450	444.49706161	5.5
153	164.28608774	-11.29
215	211.78060474	3.22
390	341.06638058	48.93
314	297.61670274	16.38
471	462.97713458	8.02
335	320.88506583	14.11
294	275.22982550	18.77
231	223.43808886	7.56
410	393.61362894	16.39

448	448.69305879	-0.69
303	293.21369703	9.79
296	292.53396719	3.47
315	303.76357043	11.24
317	309.20178728	7.8
232	223.75124966	8.25
209	214.98013063	-5.98
248	230.70184052	17.3
234	225.24590761	8.75
490	479.77669672	10.22
290	282.29749151	7.7
280	256.94446760	23.06
322	314.69297797	7.31
325	318.59800030	6.4

Mean Square Error = 200.5296

Desired Output	Predict	Error
214	238.83124607	-24.83
245	264.47229390	-19.47
165	175.47178928	-10.47
262	297.24414456	-35.24
218	223.60370179	-5.6
234	248.91945018	-14.92
300	331.66842331	-31.67
393	424.01042005	-31.01
483	481.69491583	1.31
230	233.27393263	-3.27
441	460.10091697	-19.1
225	225.98926762	-0.99
308	323.33364203	-15.33
308	331.59694314	-23.6
212	241.78055900	-29.78
404	428.93341524	-24.93
440	460.63533371	-20.64
156	175.42114002	-19.42
250	266.20453194	-16.2
291	317.19743012	-26.2
472	481.55268887	-9.55
297	305.59780728	-8.6
427	449.44167689	-22.44
313	342.53871628	-29.54
305	326.63722966	-21.64
464	477.61275129	-13.61
154	175.38295928	-21.38
413	413.38147165	-0.38
465	468.75547042	-3.76
215	229.07688288	-14.08
235	244.65305889	-9.65

Mean Square Error = 385.606958

Desired Output	Predict	Error
333	345.32446059	-12.32
466	460.01161897	5.99
232	259.06084370	-27.06
396	421.23580305	-25.24
468	478.40071891	-10.4
478	482.39232447	-4.39

164	171.15315110	-7.15
307	337.03982218	-30.04
460	450.05845826	9.94
247	277.02149459	-30.02
310	339.73439395	-29.73
397	416.61627711	-19.62
490	483.39365700	6.61
412	379.67422228	32.33
253	296.10082454	-43.1
323	358.41855270	-35.42
224	184.60154362	39.4
250	293.25024189	-43.25
481	481.27236493	-0.27
315	351.78218728	-36.78
447	459.20337502	-12.2
325	352.82964603	-27.83
280	308.50088771	-28.5
329	366.96342104	-37.96
153	170.74166628	-17.74
296	324.73539412	-28.74
236	263.07956034	-27.08
156	171.00393689	-15.0
437	450.94827477	-13.95
374	398.52886539	-24.53
153	170.70564285	-17.71

Mean Square Error = 653.843935

Desired Output	Predict	Error
207	176.15887650	30.84
489	474.95660159	14.04
467	457.77303285	9.23
306	294.23136957	11.77
216	210.33293800	5.67
209	216.33242358	-7.33
465	455.83746813	9.16
349	331.65890739	17.34
245	230.35934514	14.64
345	329.13286904	15.87
260	244.92931465	15.07
341	326.99540390	14.0
362	332.61894998	29.38
465	467.68269485	-2.68
255	245.04248789	9.96
339	320.34943990	18.65
270	243.61656113	26.38
153	163.11697883	-10.12
456	460.81322456	-4.81
405	351.75252044	53.25
249	253.69276788	-4.69
327	307.36709870	19.63
307	300.69857741	6.3
238	220.81394024	17.19
416	394.66724241	21.33
294	291.22180372	2.78
242	220.22846871	21.77
431	418.06521445	12.93
333	321.33539969	11.66
303	300.38191147	2.62
486	474.82566439	11.17

Mean Square Error = 316.775316

Desired Output	Predict	Error
322	316.48824893	5.51
276	271.24227575	4.76
357	329.60127212	27.4
235	224.14521918	10.85
320	313.44152015	6.56
210	221.25300091	-11.25
327	312.25031789	14.75
238	229.81153160	8.19
385	345.95121106	39.05
252	267.60685845	-15.61
213	221.08023711	-8.08
360	329.12717945	30.87
377	335.59136081	41.41
469	448.04648547	20.95
365	331.39121665	33.61
457	411.23530412	45.76
454	401.74272188	52.26
271	269.10749503	1.89
286	277.53377160	8.47
208	221.78409328	-13.78
153	162.65679949	-9.66
300	294.32177193	5.68
444	406.97743572	37.02
340	251.27536220	88.72
380	313.65626907	66.34
333	321.90124844	11.1
172	166.95317454	5.05
455	425.01225672	29.99
293	298.25907553	-5.26
490	473.11291434	16.89
294	301.48168180	-7.48

Mean Square Error = 894.240555

Desired Output	Predict	Error
353	334.37921431	18.62
217	208.96229269	8.04
370	343.13427120	26.87
376	351.24734014	24.75
288	239.72761833	48.27
156	167.55405668	-11.55
485	474.20357381	10.8
243	222.26953857	20.73
328	320.92804894	7.07
398	336.08221807	61.92
390	366.09827132	23.9
469	453.32422988	15.68
153	166.33228884	-13.33
259	201.45912744	57.54
240	221.80459463	18.2
239	234.80242711	4.2
470	457.20715768	12.79
390	345.66622974	44.33
311	306.36735710	4.63
311	301.16004133	9.84

444	428.65589705	15.34
405	363.05466735	41.95
211	218.93914101	-7.94
308	303.01736313	4.98
168	168.77669270	-0.78
470	466.89505878	3.1
246	237.75467358	8.25
288	287.05477048	0.95
331	321.80586014	9.19
153	166.26782683	-13.27
211	219.02943409	-8.03

Mean Square Error = 581.561574

Desired Output	Predict	Error
251	293.51367110	-42.51
471	472.10431712	-1.1
459	466.91135728	-7.91
253	295.37613108	-42.38
317	352.65241847	-35.65
232	254.29851567	-22.3
326	318.60776392	7.39
215	240.37029474	-25.37
467	463.93063318	3.07
381	407.70143081	-26.7
309	343.41933585	-34.42
488	482.52401394	5.48
302	321.03090925	-19.03
475	479.82581925	-4.83
214	242.05141188	-28.05
410	405.15548954	4.84
420	389.56105431	30.44
231	257.86210845	-26.86
234	255.15115535	-21.15
245	261.05073346	-16.05
246	211.73882796	34.26
256	296.41006176	-40.41
435	421.97276791	13.03
490	483.53388059	6.47
382	410.77715159	-28.78
294	327.44562665	-33.45
462	468.47114793	-6.47
305	336.57329675	-31.57
445	422.66957184	22.33
457	465.46393994	-8.46
356	389.73581554	-33.74

Mean Square Error = 623.607232

Desired Output	Predict	Error
412	453.18521740	-41.19
322	351.79920332	-29.8
236	249.28551832	-13.29
305	341.71447180	-36.71
160	169.71598174	-9.72
291	338.11436206	-47.11
209	241.20442878	-32.2
328	285.13877148	42.86
420	435.35234872	-15.35

361	398.10559140	-37.11
214	240.19416805	-26.19
460	480.64648564	-20.65
233	247.35217047	-14.35
221	234.61541398	-13.62
303	340.89059140	-37.89
210	242.53164638	-32.53
490	484.40879061	5.59
427	450.12689945	-23.13
208	242.76477163	-34.76
417	427.14196315	-10.14
274	316.52466548	-42.52
470	478.95503200	-8.96
288	332.72551895	-44.73
328	378.48439541	-50.48
155	167.77037923	-12.77
478	482.88862884	-4.89
484	483.43385517	0.57
237	219.47343196	17.53
436	463.21957209	-27.22
265	314.50120686	-49.5
156	168.17336596	-12.17

Mean Square Error = 872.754939

Desired Output	Predict	Error
351	390.85262668	-39.85
209	242.26466535	-33.26
471	473.35765677	-2.36
188	175.89745354	12.1
215	237.66375705	-22.66
470	473.99226773	-3.99
490	480.95532879	9.04
240	272.91566883	-32.92
153	175.49352093	-22.49
319	356.75930041	-37.76
230	256.46747305	-26.47
319	353.55391969	-34.55
368	409.64535701	-41.65
268	304.41869756	-36.42
450	445.77067248	4.23
298	334.54824180	-36.55
328	368.58767077	-40.59
471	474.23606827	-3.24
209	240.54382705	-31.54
244	263.51771116	-19.52
344	384.85853941	-40.86
475	480.06286061	-5.06
314	282.83072498	31.17
330	340.16926909	-10.17
209	241.27105746	-32.27
252	299.57796601	-47.58
208	235.05169683	-27.05
488	480.27383918	7.73
447	461.40609333	-14.41
370	325.43264870	44.57
300	278.98034915	21.02

Mean Square Error = 816.729535

Desired Output	Predict	Error
438	436.72455082	1.28
240	242.63926354	-2.64
259	291.72660982	-32.73
350	290.14543500	59.85
401	425.63853295	-24.64
153	167.01142194	-14.01
340	337.26422150	2.74
230	242.17799435	-12.18
315	323.38926581	-8.39
337	363.79245458	-26.79
192	176.29472311	15.71
433	427.54720794	5.45
390	417.17380989	-27.17
315	334.74757162	-19.75
428	418.03883175	9.96
360	303.26776502	56.73
424	437.54678498	-13.55
468	473.28381554	-5.28
292	303.75638476	-11.76
489	479.68288145	9.32
288	301.65788201	-13.66
178	171.19437142	6.81
433	452.91103710	-19.91
486	479.19274766	6.81
246	266.11500005	-20.12
284	298.04611336	-14.05
290	310.47067136	-20.47
290	282.01659039	7.98
468	478.56433629	-10.56
241	241.12001310	-0.12
481	480.07790700	0.92

Mean Square Error = 433.587458

***** Mean Square Error Average : 577.9237 *****
200.5296

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.38

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output

Desired Output	Predict	Error
214	240.07858196	-26.08
188	171.00650605	16.99
260	267.16786837	-7.17
246	261.56390073	-15.56
214	239.36450535	-25.36
420	416.46399614	3.54
405	381.98599303	23.01
215	238.22052531	-23.22
455	461.41709358	-6.42
344	367.51611930	-23.52
441	449.43534035	-8.44

251	284.48434216	-33.48
410	391.19091475	18.81
311	333.54679354	-22.55
430	436.77585698	-6.78
290	290.15048225	-0.15
153	167.00234759	-14.0
192	174.13002801	17.87
457	463.60126244	-6.6
436	447.12773238	-11.13
165	168.90751630	-3.91
322	349.81847213	-27.82
307	331.26105873	-24.26
465	458.61371978	6.39
259	289.04814415	-30.05
280	275.40800625	4.59
468	478.28531180	-10.29
288	300.75869152	-12.76
290	309.96096192	-19.96
365	384.71145182	-19.71
390	405.12777126	-15.13

Mean Square Error = 322.305416

Desired Output	Predict	Error
370	303.60962682	66.39
311	303.82826413	7.17
322	299.98513312	22.01
262	266.86996911	-4.87
305	293.08203023	11.92
306	293.53878351	12.46
231	219.25543334	11.74
330	306.72241370	23.28
305	293.89396024	11.11
153	165.25704310	-12.26
448	435.96917606	12.03
385	361.05179641	23.95
438	379.24071260	58.76
319	309.96701113	9.03
454	409.52466313	44.48
467	445.26186816	21.74
208	207.59483805	0.41
328	315.91156567	12.09
451	446.41565431	4.58
339	321.49249865	17.51
490	473.82459765	16.18
357	336.84059243	20.16
481	468.75901272	12.24
490	473.01794414	16.98
390	323.28717301	66.71
490	473.77105393	16.23
235	217.06635176	17.93
209	210.76100440	-1.76
433	408.38526244	24.61
472	471.70534179	0.29
398	328.40477691	69.6

Mean Square Error = 806.133742

Desired Output	Predict	Error

460	472.67797746	-12.68
154	163.10502183	-9.11
274	264.43470435	9.57
218	206.07956042	11.92
224	173.43777052	50.56
314	244.62488006	69.38
362	336.82695751	25.17
314	292.24129366	21.76
437	430.32519079	6.67
231	222.72704088	8.27
470	484.07194120	-14.07
252	256.81821816	-4.82
296	281.03262006	14.97
361	350.46728399	10.53
307	296.05791888	10.94
237	183.12625242	53.87
470	468.62965829	1.37
246	235.75424774	10.25
296	294.43566184	1.56
245	226.99629941	18.0
450	448.68270366	1.32
241	221.17774816	19.82
469	467.39171540	1.61
308	290.13247746	17.87
302	286.82328105	15.18
270	246.50474715	23.5
292	273.26286291	18.74
265	262.19964493	2.8
333	328.52929670	4.47
393	386.23038392	6.77
234	223.93202951	10.07

Mean Square Error = 487.22249

Desired Output	Predict	Error
214	322.31311030	-108.31
230	322.39430841	-92.39
168	190.49874085	-22.5
435	322.33960805	112.66
238	322.48774799	-84.49
470	322.25317228	147.75
325	322.60423784	2.4
303	322.67364407	-19.67
490	322.17482281	167.83
315	322.66501220	-7.67
337	322.60205080	14.4
486	322.18377050	163.82
153	188.77766950	-35.78
153	188.28844934	-35.29
213	322.35782750	-109.36
288	322.71748559	-34.72
294	322.69847012	-28.7
328	322.73049462	5.27
300	322.71804891	-22.72
242	322.73817502	-80.74
340	322.58977077	17.41
390	322.50230640	67.5
215	322.29771971	-107.3
376	322.52853505	53.47
320	322.62729226	-2.63

322	322.63184296	-0.63
489	322.18363719	166.82
396	322.49333956	73.51
225	322.29199184	-97.29
211	322.37310604	-111.37
240	322.51976462	-82.52

Mean Square Error = 7187.870052

Desired Output	Predict	Error
331	357.34169470	-26.34
291	315.20436809	-24.2
467	469.16053075	-2.16
456	472.89058773	-16.89
156	169.39454267	-13.39
300	315.49992456	-15.5
345	372.23248407	-27.23
317	342.53967982	-25.54
208	238.01414473	-30.01
233	248.46250231	-15.46
247	267.27839930	-20.28
160	169.62379455	-9.62
232	250.21517955	-18.22
313	341.69508409	-28.7
253	285.58856330	-32.59
310	330.97444797	-20.97
207	180.17055226	26.83
209	241.53976647	-32.54
360	306.87884212	53.12
464	475.56080454	-11.56
351	375.47660704	-24.48
208	237.11731133	-29.12
333	355.15078446	-22.15
327	334.91944815	-7.92
153	168.81627448	-15.82
215	237.44547390	-22.45
209	242.31053988	-33.31
210	243.46197240	-33.46
468	469.91380406	-1.91
236	255.85997034	-19.86
164	169.84039482	-5.84

Mean Square Error = 575.285803

Desired Output	Predict	Error
288	308.84081943	-20.84
209	294.29428130	-85.29
360	320.29404747	39.71
232	305.20328414	-73.2
349	320.01825234	28.98
341	319.92158142	21.08
470	320.95775840	149.04
235	299.66857850	-64.67
294	318.34985500	-24.35
315	319.09089013	-4.09
216	291.86672878	-75.87
153	153.07640013	-0.08
412	320.17610313	91.82
335	319.89119942	15.11

221	290.38267070	-69.38
490	321.13711564	168.86
253	315.82981768	-62.83
294	318.15150104	-24.15
246	226.32629193	19.67
431	320.77989374	110.22
405	320.52639713	84.47
444	320.84082090	123.16
293	318.26432891	-25.26
488	321.11190858	166.89
470	320.98140898	149.02
471	320.98338930	150.02
440	320.83562600	119.16
390	319.43369286	70.57
457	320.76372052	136.24
153	153.10300150	-0.1
271	316.78883518	-45.79

Mean Square Error = 7841.481658

Desired Output	Predict	Error
284	289.67752322	-5.68
447	321.25981852	125.74
315	311.02551688	3.97
382	318.69583028	63.3
404	319.43702603	84.56
420	319.64201221	100.36
247	242.59269311	4.41
210	211.73736767	-1.74
315	307.29229359	7.71
470	321.16330502	148.84
475	321.27273461	153.73
327	311.93073921	15.07
234	218.00264717	16.0
153	174.21600893	-21.22
370	317.69032905	52.31
465	321.06610687	143.93
280	288.27456829	-8.27
471	321.19417051	149.81
215	206.79379097	8.21
240	237.99155073	2.01
466	321.12084196	144.88
250	237.69462891	12.31
252	278.66648828	-26.67
397	319.87480053	77.13
276	286.66585834	-10.67
490	321.36881291	168.63
211	212.12825865	-1.13
297	299.80298170	-2.8
374	317.72556115	56.27
444	320.60456802	123.4
328	314.75220674	13.25

Mean Square Error = 6608.231106

Desired Output	Predict	Error
250	298.03373348	-48.03
209	238.09426768	-29.09
256	297.25261318	-41.25

329	358.02533883	-29.03
259	214.60264531	44.4
468	476.89025948	-8.89
230	244.19953822	-14.2
483	480.53555831	2.46
240	247.63438859	-7.63
460	462.96071676	-2.96
445	440.75560516	4.24
428	413.10162644	14.9
245	263.77203638	-18.77
270	271.19906461	-1.2
286	306.58816908	-20.59
450	447.44724918	2.55
298	331.92333377	-33.92
245	255.15063520	-10.15
308	334.38499099	-26.38
319	346.03377428	-27.03
243	249.55435443	-6.55
381	411.08302460	-30.08
422	445.85403892	-23.85
288	316.30806229	-28.31
427	445.49329165	-18.49
290	318.43250393	-28.43
234	253.30433929	-19.3
416	441.14684426	-25.15
303	325.79458989	-22.79
209	237.88782124	-28.89
308	337.15166983	-29.15

Mean Square Error = 593.666568

Desired Output	Predict	Error
217	211.08806962	5.91
413	371.66974791	41.33
478	483.51658972	-5.52
484	481.26480638	2.74
236	224.70799806	11.29
465	473.28957032	-8.29
230	224.41761133	5.58
333	319.04486646	13.96
356	345.04053330	10.96
471	466.51169842	4.49
248	228.19261167	19.81
410	397.94416683	12.06
328	325.29258860	2.71
153	164.27961929	-11.28
213	214.36250514	-1.36
340	262.76623486	77.23
305	296.09100638	8.91
156	164.80215751	-8.8
401	385.51335599	15.49
412	366.80835343	45.19
433	391.92969359	41.07
238	240.47084405	-2.47
156	164.91266881	-8.91
239	245.28907781	-6.29
317	311.03339422	5.97
212	215.77913889	-3.78
427	420.30862449	6.69
447	446.00114834	1.0

481		483.14182973		-2.14
247		238.75128778		8.25
485		482.63658793		2.36

Mean Square Error = 432.482161

Desired Output		Predict		Error
249		269.30986716		-20.31
156		167.99369674		-11.99
255		271.22167705		-16.22
178		172.16513400		5.83
490		321.47700422		168.52
309		316.25869677		-7.26
471		321.43932395		149.56
294		313.67591228		-19.68
300		315.51461529		-15.51
155		168.30485400		-13.3
353		320.19523279		32.8
469		321.43701611		147.56
488		321.47406292		166.53
232		245.82493016		-13.82
244		249.31464839		-5.31
291		310.71555588		-19.72
489		321.46947860		167.53
172		171.03072079		0.97
326		316.69755342		9.3
325		318.79098589		6.21
459		321.39984944		137.6
368		320.68100273		47.32
377		320.50731030		56.49
323		317.96856531		5.03
490		321.47682635		168.52
462		321.40881367		140.59
417		320.99520251		96.0
424		321.14479136		102.86
486		321.46609138		164.53
478		321.45788710		156.54
380		320.30039150		59.7

Mean Square Error = 9011.272223

***** Mean Square Error Average : 3386.5951 *****
322.305416

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.39

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
305		322.19451829		-17.19
288		300.60540569		-12.61
280		263.62402744		16.38
317		345.21244030		-28.21
365		386.81908932		-21.82

216	233.72214427	-17.72
470	468.82449135	1.18
153	172.38837742	-19.39
208	236.72545726	-28.73
238	263.33011908	-25.33
362	361.71570525	0.28
217	232.71337161	-15.71
470	470.98030200	-0.98
294	323.06683202	-29.07
156	172.82890038	-16.83
164	173.11564918	-9.12
298	327.84582316	-29.85
253	286.66112429	-33.66
340	281.86755693	58.13
337	364.95962584	-27.96
333	348.88714134	-15.89
486	479.43625640	6.56
209	239.55973931	-30.56
315	325.42355060	-10.42
259	289.28860716	-30.29
486	479.52495036	6.48
370	325.67792882	44.32
154	172.75475893	-18.75
300	315.94629794	-15.95
397	417.22299620	-20.22
405	408.61509988	-3.62

Mean Square Error = 551.193287

Desired Output	Predict	Error
153	170.16685496	-17.17
454	424.40487490	29.6
252	263.68271855	-11.68
385	366.80058273	18.2
447	437.19180253	9.81
412	361.02796213	50.97
309	302.12655882	6.87
444	432.38095450	11.62
410	387.28233856	22.72
319	305.35429454	13.65
381	361.57881180	19.42
153	170.13356597	-17.13
208	206.09698438	1.9
417	372.33930323	44.66
247	243.67291089	3.33
390	368.27906151	21.72
251	262.84166855	-11.84
303	293.71369461	9.29
308	292.90602645	15.09
441	428.13222806	12.87
483	477.24866169	5.75
440	429.62477057	10.38
431	417.50395156	13.5
344	326.93073570	17.07
230	212.28524206	17.71
306	292.22977738	13.77
232	221.63358403	10.37
209	210.36480301	-1.36
427	409.47805812	17.52
330	310.27467302	19.73

243		220.89122635		22.11
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Mean Square Error = 367.777165

Desired Output	Predict	Error
240	232.64280296	7.36
328	325.22583787	2.77
213	216.26820294	-3.27
413	358.60287587	54.4
456	459.95348268	-3.95
433	384.21683810	48.78
303	292.84901951	10.15
294	296.81025652	-2.81
284	273.81985577	10.18
286	275.06143422	10.94
489	476.37289348	12.63
232	220.15813649	11.84
460	440.04292173	19.96
322	307.18813070	14.81
172	165.11210248	6.89
153	162.85582169	-9.86
377	347.89519562	29.1
208	214.95533138	-6.96
322	318.50517714	3.49
290	290.84821372	-0.85
315	311.50046891	3.5
478	477.30165871	0.7
214	214.05836978	-0.06
249	250.90342174	-1.9
231	221.07480199	9.93
484	473.29417243	10.71
470	460.02428110	9.98
224	182.01189655	41.99
398	340.95923381	57.04
422	397.39766686	24.6
481	472.44059764	8.56

Mean Square Error = 443.739526

Desired Output	Predict	Error
215	312.75811893	-97.76
471	323.36205956	147.64
248	320.45736506	-72.46
401	322.04969380	78.95
331	321.57923179	9.42
490	324.78927033	165.21
234	318.61446690	-84.61
246	319.89005064	-73.89
460	323.56941151	136.43
240	317.37685115	-77.38
350	320.49367121	29.51
465	323.43129174	141.57
376	321.93253134	54.07
361	321.80983184	39.19
311	321.50632237	-10.51
156	172.33954357	-16.34
317	321.51841721	-4.52
490	324.73665802	165.26
450	322.30230684	127.7

374	321.86837383	52.13
471	323.28235114	147.72
207	173.26328938	33.74
270	286.53425120	-16.53
490	324.83256973	165.17
489	324.60650193	164.39
210	315.14135631	-105.14
260	318.99489619	-58.99
329	321.63811953	7.36
291	321.30767796	-30.31
211	315.44968484	-104.45
214	314.94349009	-100.94

Mean Square Error = 9473.881977

Desired Output	Predict	Error
438	320.42622209	117.57
349	319.70816323	29.29
153	158.89080474	-5.89
221	259.60126158	-38.6
325	319.22398584	5.78
156	159.20692317	-3.21
218	261.22924793	-43.23
155	159.15175741	-4.15
293	317.40585521	-24.41
294	316.87792649	-22.88
305	317.89404183	-12.89
305	318.14083939	-13.14
357	319.86298931	37.14
433	320.74758047	112.25
262	314.14381185	-52.14
288	316.64767827	-28.65
303	318.088555896	-15.09
302	316.99734144	-15.0
445	320.54224547	124.46
360	320.00773909	39.99
390	320.33711948	69.66
296	317.24603502	-21.25
335	319.44560306	15.55
209	273.53079861	-64.53
265	314.25325524	-49.25
214	273.49204355	-59.49
319	318.99490904	0.01
225	262.80814200	-37.81
436	320.80804773	115.19
471	321.06862223	149.93
192	159.53297601	32.47

Mean Square Error = 3501.951271

Desired Output	Predict	Error
488	489.96518618	-1.97
327	489.96509712	-162.97
244	489.96507596	-245.97
315	489.96508758	-174.97
382	489.96512773	-107.97
153	489.96539506	-336.97
314	489.96508409	-175.97
215	489.96515494	-274.97

274	489.96505816	-215.97
245	489.96513215	-244.97
326	489.96507601	-163.97
328	489.96507882	-161.97
297	489.96514371	-192.97
300	489.96508909	-189.97
475	489.96517760	-14.97
288	489.96509247	-201.97
315	489.96507840	-174.97
188	489.96542002	-301.97
437	489.96515048	-52.97
246	489.96506990	-243.97
232	489.96509520	-257.97
351	489.96511347	-138.97
462	489.96516375	-27.97
252	489.96506143	-237.97
353	489.96510881	-136.97
340	489.96507289	-149.97
313	489.96508493	-176.97
268	489.96505794	-221.97
153	489.96539673	-336.97
327	489.96507302	-162.97
250	489.96512427	-239.97

Mean Square Error = 40984.197029

Desired Output	Predict	Error
211	243.31657934	-32.32
490	482.11487716	7.89
457	446.80253710	10.2
468	477.00572755	-9.01
472	480.52648748	-8.53
475	478.54355564	-3.54
237	198.03912858	38.96
328	358.65015445	-30.65
231	250.39738762	-19.4
404	419.62864738	-15.63
485	480.41827897	4.58
390	359.01237979	30.99
239	269.76965610	-30.77
466	460.01046266	5.99
296	325.19503457	-29.2
471	470.79423972	0.21
464	476.11137646	-12.11
153	168.78845290	-15.79
235	248.76667865	-13.77
451	470.81877112	-19.82
412	413.26727312	-1.27
300	328.80452321	-28.8
416	430.90862457	-14.91
212	241.78674808	-29.79
467	469.38246627	-2.38
360	306.90850086	53.09
490	482.06953144	7.93
210	242.05123217	-32.05
450	459.71900614	-9.72
420	396.95843450	23.04
160	169.19049794	-9.19

Mean Square Error = 477.913687

Desired Output	Predict	Error
469	468.65211041	0.35
271	263.21416109	7.79
165	164.92581614	0.07
291	284.26660089	6.73
468	481.43315475	-13.43
156	164.48119904	-8.48
168	165.14459112	2.86
238	221.72884432	16.27
240	222.62820691	17.37
393	387.87809304	5.12
250	255.97915059	-5.98
270	239.15734079	30.84
470	478.40137796	-8.4
488	483.78674701	4.21
333	328.82990224	4.17
253	257.54123369	-4.54
427	412.61206417	14.39
380	329.16876970	50.83
428	386.43958393	41.56
325	324.49685030	0.5
259	228.24044571	30.76
470	469.29159492	0.71
435	437.70286900	-2.7
247	230.39329113	16.61
213	215.17590571	-2.18
256	258.62556751	-2.63
396	385.83332196	10.17
448	456.45712004	-8.46
233	222.47543828	10.52
467	461.28425460	5.72
465	452.62470346	12.38

Mean Square Error = 267.864048

Desired Output	Predict	Error
307	489.99916600	-183.0
447	489.99915491	-43.0
290	489.99915414	-200.0
459	489.99920255	-31.0
368	489.99919269	-122.0
235	489.99894079	-255.0
236	489.99903484	-254.0
153	489.90641519	-336.91
314	489.99906557	-176.0
322	489.99917693	-168.0
246	489.98811880	-243.99
245	489.99908801	-245.0
345	489.99918369	-145.0
215	489.99892314	-275.0
234	489.99906315	-256.0
444	489.99920403	-46.0
307	489.99916692	-183.0
341	489.99918233	-149.0
410	489.99919522	-80.0
311	489.99916998	-179.0
245	489.99909168	-245.0
242	489.99907270	-248.0

356	489.99919055	-134.0
280	489.99915186	-210.0
276	489.99914962	-214.0
333	489.99915297	-157.0
292	489.99916047	-198.0
209	489.99892290	-281.0
469	489.99919759	-21.0
405	489.99916013	-85.0
465	489.99920293	-25.0

Mean Square Error = 37158.305426

Desired Output	Predict	Error
468	321.29495311	146.71
455	321.26221841	133.74
308	319.96783739	-11.97
490	321.35488414	168.65
457	321.26839599	135.73
339	320.71945915	18.28
290	307.44923437	-17.45
294	319.03195711	-25.03
247	311.66859180	-64.67
470	321.30111024	148.7
323	320.43228908	2.57
255	305.95458416	-50.95
209	285.41925678	-76.42
234	300.57877260	-66.58
390	320.36451342	69.64
481	321.33578309	159.66
215	281.74528065	-66.75
420	321.10946448	98.89
424	321.13907671	102.86
328	311.52246905	16.48
370	320.90866763	49.09
478	321.33600196	156.66
310	319.95104684	-9.95
490	321.35577337	168.64
178	175.00458163	3.0
209	285.81393103	-76.81
236	306.51434460	-70.51
430	321.18256150	108.82
320	320.17074426	-0.17
288	318.88947822	-30.89
308	320.05132340	-12.05

Mean Square Error = 8438.494406

***** Mean Square Error Average : 10166.5318 *****

267.864048

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.4

Momentum rate : 0.07

Activatoin Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output | Predict | Error

153	172.78861513	-19.79
302	320.30204455	-18.3
153	172.90796873	-19.91
216	234.01306341	-18.01
250	291.41146341	-41.41
471	469.95193133	1.05
490	478.31255838	11.69
460	456.64181100	3.36
319	350.50854120	-31.51
435	447.74173149	-12.74
481	476.77250032	4.23
259	219.00795334	39.99
234	248.55120463	-14.55
401	419.57273270	-18.57
232	245.39398454	-13.39
209	240.54017609	-31.54
370	391.20384592	-21.2
246	266.26386823	-20.26
230	248.85632689	-18.86
290	314.73904253	-24.74
234	251.11059815	-17.11
486	477.67331198	8.33
240	248.41340404	-8.41
440	453.67293130	-13.67
270	268.17774029	1.82
376	401.25014527	-25.25
444	457.80792159	-13.81
424	430.22541136	-6.23
433	420.28215437	12.72
362	364.35585356	-2.36
490	478.67556542	11.32

Mean Square Error = 368.624435

Desired Output	Predict	Error
214	237.93826402	-23.94
393	410.50746503	-17.51
290	293.77910025	-3.78
217	235.42561688	-18.43
335	357.32934150	-22.33
245	258.06607352	-13.07
209	240.00807116	-31.01
221	234.55318990	-13.55
470	483.14804077	-13.15
252	285.78944199	-33.79
468	477.54789475	-9.55
153	169.79283390	-16.79
156	170.75699585	-14.76
160	170.93946069	-10.94
345	369.57343979	-24.57
471	470.51622667	0.48
156	170.68795622	-14.69
168	172.13967618	-4.14
305	329.90171466	-24.9
467	461.67669168	5.32
390	407.07928406	-17.08
237	208.65395806	28.35
209	239.36312458	-30.36
276	294.08898906	-18.09

353	376.56482807	-23.56
208	233.69178112	-25.69
315	326.65047931	-11.65
303	329.84164824	-26.84
210	241.76179145	-31.76
464	476.49774386	-12.5
490	483.68641417	6.31

Mean Square Error = 392.877397

Desired Output	Predict	Error
455	470.61119466	-15.61
328	470.93489876	-142.93
306	470.82899012	-164.83
211	470.95682224	-259.96
248	470.91278381	-222.91
490	470.53497236	19.47
225	470.95745223	-245.96
296	470.84661907	-174.85
457	470.72853661	-13.73
467	470.59919921	-3.6
192	470.93420917	-278.93
308	470.83849744	-162.84
230	470.94078832	-240.94
483	470.62136685	12.38
231	470.93927497	-239.94
253	470.89951505	-217.9
412	470.84286653	-58.84
420	470.66257655	-50.66
286	470.86555695	-184.87
470	470.54914297	-0.55
156	470.91626849	-314.92
339	470.75379224	-131.75
490	470.52696381	19.47
314	470.93723133	-156.94
153	470.90711975	-317.91
427	470.63496319	-43.63
294	470.87935957	-176.88
413	470.67997632	-57.68
300	470.93943654	-170.94
328	470.79472897	-142.79
445	470.77242312	-25.77

Mean Square Error = 28836.772968

Desired Output	Predict	Error
234	312.24192870	-78.24
319	315.56690530	3.43
154	162.09906861	-8.1
486	318.16083433	167.84
404	316.47515472	87.52
311	315.53973364	-4.54
469	317.44018622	151.56
437	316.95195963	120.05
450	316.73844246	133.26
470	317.49571382	152.5
431	316.90218950	114.1
296	315.32368635	-19.32
340	313.26192212	26.74

232	311.38350081	-79.38
218	308.48427497	-90.48
178	162.14723338	15.85
380	315.08132605	64.92
211	309.87840985	-98.88
390	315.89061819	74.11
247	313.28709477	-66.29
314	314.26908308	-0.27
246	313.16502501	-67.17
298	315.34973138	-17.35
233	311.55084114	-78.55
315	315.58666122	-0.59
471	317.56626022	153.43
153	162.10011385	-9.1
374	316.12894744	57.87
209	309.51167398	-100.51
244	312.40607624	-68.41
320	315.53215448	4.47

Mean Square Error = 7288.03561

Desired Output	Predict	Error
457	489.98646340	-32.99
405	489.98621208	-84.99
360	489.98633323	-129.99
481	489.98651460	-8.99
382	489.98636111	-107.99
450	489.98645395	-39.99
331	489.98617398	-158.99
422	489.98641257	-67.99
465	489.98647495	-24.99
230	489.98555101	-259.99
444	489.98644315	-45.99
370	489.98600813	-119.99
308	489.98610459	-181.99
470	489.98648051	-19.99
172	489.98399431	-317.98
241	489.98573331	-248.99
349	489.98629417	-140.99
490	489.98653878	0.01
303	489.98617330	-186.99
213	489.98560428	-276.99
327	489.98625728	-162.99
270	489.98522031	-219.99
390	489.98613297	-99.99
478	489.98651972	-11.99
236	489.98579412	-253.99
328	489.98618056	-161.99
315	489.98618546	-174.99
207	489.98425305	-282.98
288	489.98610120	-201.99
255	489.98572197	-234.99
280	489.98540602	-209.99

Mean Square Error = 29291.855603

Desired Output	Predict	Error
294	290.24104297	3.76
247	238.10448489	8.9

412	407.44859137	4.55
488	483.10173793	4.9
489	483.56060451	5.44
344	334.34729829	9.65
300	281.60416786	18.4
271	260.24500477	10.75
351	339.97044853	11.03
305	290.37793033	14.62
209	214.09771797	-5.1
231	224.25175156	6.75
288	277.56549476	10.43
245	231.51066499	13.49
243	221.79228473	21.21
260	240.08898308	19.91
490	483.71034350	6.29
428	389.91069966	38.09
307	294.06799268	12.93
323	309.83251278	13.17
337	332.05044749	4.95
333	328.10339386	4.9
156	164.73155851	-8.73
212	215.57599831	-3.58
361	351.81574050	9.18
288	236.93384881	51.07
333	328.24539936	4.75
238	220.53768556	17.46
490	484.02529798	5.97
417	385.76048861	31.24
188	166.80920632	21.19

Mean Square Error = 280.900887

Desired Output	Predict	Error
381	406.29589022	-25.3
253	293.89490671	-40.89
460	476.37383305	-16.37
472	480.65009190	-8.65
210	242.11975898	-32.12
368	397.63781553	-29.64
238	271.07486107	-33.07
441	454.57346954	-13.57
209	239.51645377	-30.52
333	346.48855982	-13.49
470	472.59419359	-2.59
430	443.91145275	-13.91
309	340.07364089	-31.07
438	420.20735083	17.79
310	334.76013828	-24.76
459	467.43751315	-8.44
308	335.55194680	-27.55
317	349.13433018	-32.13
468	473.55299823	-5.55
325	352.75486224	-27.75
377	397.36497369	-20.36
251	293.14697553	-42.15
466	462.40072296	3.6
305	329.17895147	-24.18
317	343.55224997	-26.55
246	188.64056228	57.36
454	442.37870305	11.62

420	394.96702839	25.03
284	304.19368403	-20.19
165	170.65579574	-5.66
288	308.30125991	-20.3

Mean Square Error = 648.773877

Desired Output	Predict	Error
465	453.82690656	11.17
396	405.21878677	-9.22
478	485.54905270	-7.55
155	172.14328230	-17.14
280	295.57233524	-15.57
303	311.75766131	-8.76
329	350.94444127	-21.94
153	170.61280608	-17.61
405	393.61454566	11.39
300	329.68825557	-29.69
268	290.39875308	-22.4
484	482.60916574	1.39
468	469.30434451	-1.3
232	251.19585423	-19.2
290	311.98895384	-21.99
327	335.68090615	-8.68
215	237.15108146	-22.15
239	270.89812340	-31.9
397	405.58012390	-8.58
215	237.13191868	-22.13
208	233.59697278	-25.6
488	483.77424432	4.23
322	350.49290893	-28.49
313	340.83065204	-27.83
325	354.14585984	-29.15
214	238.61997711	-24.62
256	285.85722327	-29.86
385	400.56952878	-15.57
456	473.75241821	-17.75
245	254.72355155	-9.72
447	461.96519603	-14.97

Mean Square Error = 376.449397

Desired Output	Predict	Error
416	392.34610477	23.65
470	460.71210436	9.29
307	301.87303053	5.13
214	214.68437466	-0.68
293	293.45162152	-0.45
259	266.22762743	-7.23
311	300.85359696	10.15
475	470.08070924	4.92
489	476.13275423	12.87
485	476.20456351	8.8
322	305.63305576	16.37
322	319.99070551	2.01
291	290.72323629	0.28
410	385.10900706	24.89
249	251.06822620	-2.07
315	303.33092351	11.67

153	162.97361136	-9.97
235	220.25989206	14.74
235	219.68364659	15.32
427	399.24139107	27.76
341	328.92840052	12.07
164	164.57389103	-0.57
224	181.61899458	42.38
475	477.01741697	-2.02
215	211.36237053	3.64
390	366.90690962	23.09
340	322.16367149	17.84
328	326.48457994	1.52
153	163.12534349	-10.13
350	271.22587190	78.77
250	236.72673570	13.27

Mean Square Error = 411.155094

Desired Output	Predict	Error
360	302.82993149	57.17
153	168.58431151	-15.58
208	209.50894832	-1.51
213	213.26815458	-0.27
330	310.85422598	19.15
447	321.00578745	125.99
471	321.31146465	149.69
236	222.50008966	13.5
252	273.98186188	-21.98
365	318.34881201	46.65
469	321.28122589	147.72
265	280.37985503	-15.38
357	317.77908724	39.22
294	302.64480781	-8.64
292	291.78066867	0.22
436	320.79361478	115.21
398	318.86155687	79.14
451	321.05916107	129.94
262	280.53983896	-18.54
247	236.27608302	10.72
297	304.59484635	-7.59
240	222.47568598	17.52
448	320.85729734	127.14
326	310.88985823	15.11
433	320.69270266	112.31
240	239.93328412	0.07
242	221.15937065	20.84
462	321.19131693	140.81
274	283.15757414	-9.16
215	210.89868574	4.1
410	318.87535895	91.12

Mean Square Error = 5277.061268

***** Mean Square Error Average : 7317.2507 *****
280.900887

----- Variable -----

Datafile : Flood data set
Nueral name : 8-10-6-1

Learning rate : 0.41000000000000003

Momentum rate : 0.07

Activation Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
435	450.14666738	-15.15
470	471.98329605	-1.98
234	246.39188644	-12.39
317	341.82264237	-24.82
405	396.81120609	8.19
290	289.12212919	0.88
153	166.72603957	-13.73
237	204.03949602	32.96
320	346.51826227	-26.52
471	472.47392726	-1.47
230	243.78650744	-13.79
353	376.83907344	-23.84
215	234.15703635	-19.16
470	471.69003277	-1.69
306	325.07813957	-19.08
313	341.76990798	-28.77
156	167.67659768	-11.68
247	265.12297243	-18.12
481	485.20732027	-4.21
470	472.33804572	-2.34
490	484.56596180	5.43
154	167.50714321	-13.51
322	330.01060510	-8.01
224	189.43247408	34.57
288	261.68785935	26.31
466	462.14155172	3.86
236	253.11889151	-17.12
360	305.54733648	54.45
153	166.60736866	-13.61
327	348.80998246	-21.81
293	318.06221669	-25.06

Mean Square Error = 405.953074

Desired Output	Predict	Error
448	320.76252052	127.24
251	266.55896530	-15.56
216	211.30412045	4.7
437	320.74525586	116.25
305	303.40924124	1.59
462	321.14605619	140.85
246	203.71610022	42.28
450	320.91488154	129.09
232	220.42911278	11.57
380	317.90955330	62.09
471	321.27707393	149.72
361	317.43689045	43.56
478	321.40023436	156.6
305	304.45853048	0.54
469	321.24410065	147.76
398	318.59742889	79.4
486	321.39694178	164.6
238	239.26992755	-1.27

296	294.23486523	1.77
328	313.87369454	14.13
465	321.16834376	143.83
390	319.41214898	70.59
488	321.36911194	166.63
307	304.39887483	2.6
209	213.86894246	-4.87
457	321.08387000	135.92
209	214.31098676	-5.31
236	220.99575922	15.0
350	284.36427298	65.64
447	321.31505733	125.68
153	163.93941250	-10.94

Mean Square Error = 8675.483439

Desired Output	Predict	Error
475	321.43591004	153.56
486	321.44298419	164.56
153	192.85456879	-39.85
390	321.24243188	68.76
221	233.87924467	-12.88
329	320.67994708	8.32
370	321.09102907	48.91
478	321.43763500	156.56
268	314.98145729	-46.98
265	314.74957292	-49.75
459	321.40280187	137.6
241	273.50533203	-32.51
374	321.10921182	52.89
156	192.30200321	-36.3
291	318.41653089	-27.42
292	317.84402643	-25.84
288	317.67949001	-29.68
294	318.98141501	-24.98
234	279.68099982	-45.68
470	321.41458069	148.59
323	320.46199696	2.54
315	318.81336955	-3.81
230	271.37962408	-41.38
315	320.17005904	-5.17
178	192.04752031	-14.05
412	321.16533403	90.83
294	318.83489887	-24.83
431	321.35596873	109.64
362	320.13832352	41.86
209	243.67573169	-34.68
319	320.38154464	-1.38

Mean Square Error = 5348.218823

Desired Output	Predict	Error
464	466.15985744	-2.16
225	207.62341353	17.38
208	210.17492565	-2.17
405	353.73755478	51.26
156	166.32050902	-10.32
168	167.31243388	0.69
335	318.12341682	16.88

436	421.29264069	14.71
457	432.27583198	24.72
286	272.71057065	13.29
238	218.27372240	19.73
460	463.92024755	-3.92
420	369.75053422	50.25
252	264.90273546	-12.9
381	360.32470515	20.68
288	285.03793763	2.96
416	392.93618691	23.06
484	473.34818824	10.65
294	279.30589212	14.69
156	166.41253213	-10.41
240	221.18882566	18.81
314	300.85303301	13.15
331	323.70884415	7.29
410	352.52179958	57.48
340	319.49541620	20.5
234	221.56273847	12.44
300	243.12590978	56.87
412	362.64577076	49.35
296	297.15306811	-1.15
410	385.56473340	24.44
253	264.01175614	-11.01

Mean Square Error = 635.007239

Desired Output	Predict	Error
249	232.20273194	16.8
209	211.17455235	-2.17
270	237.18828291	32.81
397	388.11636587	8.88
327	303.30104018	23.7
300	282.77032878	17.23
218	209.39349980	8.61
428	385.79137341	42.21
471	468.36790161	2.63
246	233.59098145	12.41
214	210.18108214	3.82
377	362.08383852	14.92
248	223.52399979	24.48
270	259.17891455	10.82
262	259.67626442	2.32
210	213.53778635	-3.54
485	483.59887788	1.4
483	483.84657268	-0.85
239	247.91808595	-8.92
212	212.61189291	-0.61
153	162.67854265	-9.68
339	329.77267413	9.23
247	224.58992432	22.41
330	310.13323233	19.87
307	297.44419590	9.56
447	447.61120334	-0.61
310	298.62850051	11.37
303	285.96373219	17.04
471	470.62479867	0.38
303	288.51211475	14.49
153	163.10173497	-10.1

Mean Square Error = 234.552229

Desired Output	Predict	Error
290	288.08822293	1.91
160	170.38896068	-10.39
276	279.52243477	-3.52
340	258.90390272	81.1
460	319.17890285	140.82
328	243.17563690	84.82
385	315.97247282	69.03
451	319.42230439	131.58
481	320.35162874	160.65
427	318.27646032	108.72
250	220.83381377	29.17
303	298.04974441	4.95
298	296.98167625	1.02
302	290.01523875	11.98
244	218.77734450	25.22
245	222.09024022	22.91
232	203.60997075	28.39
215	193.03725790	21.96
235	203.23046567	31.77
284	282.68113728	1.32
250	260.31909031	-10.32
210	196.42192674	13.58
308	299.85369551	8.15
356	313.91491306	42.09
155	170.34551092	-15.35
370	297.98266082	72.02
253	266.64865420	-13.65
208	191.83655839	16.16
490	320.60421605	169.4
280	281.06177280	-1.06
401	317.50450678	83.5

Mean Square Error = 4567.148235

Desired Output	Predict	Error
240	232.27991404	7.72
490	474.68668838	15.31
260	241.84498236	18.16
469	453.99343149	15.01
490	474.64956225	15.35
441	423.81054295	17.19
333	317.83156224	15.17
259	265.28980785	-6.29
153	165.68625378	-12.69
164	166.66924328	-2.67
309	303.25271483	5.75
417	368.87129597	48.13
345	329.31079782	15.69
300	299.84298336	0.16
153	165.55283454	-12.55
404	377.11331132	26.89
315	308.14086408	6.86
490	474.34199948	15.66
422	397.41965842	24.58
172	167.30543165	4.69
308	296.60145317	11.4

209	213.44564633	-4.45
314	245.46557204	68.53
233	216.17462369	16.83
215	209.02863176	5.97
211	216.70547248	-5.71
328	322.73606291	5.26
465	463.79231202	1.21
333	321.26932708	11.73
319	305.58333241	13.42
165	166.95332076	-1.95

Mean Square Error = 379.390355

Desired Output	Predict	Error
230	248.07904977	-18.08
245	261.84809660	-16.85
390	360.02733161	29.97
349	375.91999888	-26.92
326	324.29717703	1.7
438	425.86672461	12.13
192	171.21293361	20.79
322	350.07693425	-28.08
246	265.11183578	-19.11
315	336.86378420	-21.86
311	339.96783700	-28.97
215	235.70109056	-20.7
489	479.62996902	9.37
490	479.27606245	10.72
207	172.90508658	34.09
153	169.93934715	-16.94
240	247.51252602	-7.51
430	444.13371025	-14.13
468	476.05834239	-8.06
450	461.87324529	-11.87
468	473.68774624	-5.69
308	321.17210175	-13.17
328	360.38831529	-32.39
252	290.86609746	-38.87
259	217.21408100	41.79
297	301.98158929	-4.98
360	388.70630171	-28.71
280	267.44459478	12.56
365	388.45015559	-23.45
232	250.06568587	-18.07
188	170.61791675	17.38

Mean Square Error = 468.59641

Desired Output	Predict	Error
351	370.86331456	-19.86
325	355.30388573	-30.3
490	389.05933749	100.94
420	379.30495815	40.7
211	324.42486879	-113.42
468	385.83906069	82.16
445	372.25998762	72.74
242	329.36106667	-87.36
440	384.17062400	55.83
454	375.72822591	78.27

294	346.91972033	-52.92
489	387.89364979	101.11
337	365.17444297	-28.17
467	381.98988692	85.01
255	327.84499164	-72.84
209	324.02903302	-115.03
413	377.44319806	35.56
245	326.04958025	-81.05
231	327.60112811	-96.6
382	376.31256742	5.69
470	371.34668560	98.65
214	324.23069339	-110.23
311	358.64855616	-47.65
424	380.16189766	43.84
475	379.21003485	95.79
288	348.71469987	-60.71
470	388.42667355	81.57
427	381.01507140	45.98
467	385.74282245	81.26
396	378.08952966	17.91
456	387.28334820	68.72

Mean Square Error = 5518.323274

Desired Output	Predict	Error
488	482.14491076	5.86
247	238.56259032	8.44
444	441.89348307	2.11
444	447.93030255	-3.93
271	261.53381094	9.47
455	453.80467508	1.2
344	334.97116108	9.03
357	350.24533872	6.75
217	211.37115690	5.63
376	367.21399986	8.79
213	216.06040231	-3.06
243	223.78892855	19.21
465	451.07386921	13.93
341	335.50194753	5.5
231	224.91716134	6.08
214	214.12152122	-0.12
305	290.51130419	14.49
390	358.85750897	31.14
490	482.98874777	7.01
213	215.38460925	-2.38
290	277.41597239	12.58
235	221.30334950	13.7
393	388.55594277	4.44
333	327.98194206	5.02
368	360.07266980	7.93
274	262.34655553	11.65
256	256.83762063	-0.84
325	322.08266189	2.92
291	279.44100376	11.56
208	211.08612889	-3.09
433	395.67422361	37.33

Mean Square Error = 143.941726

***** Mean Square Error Average : 2637.6615 *****

143.941726

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.42

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
470	321.61845609	148.38
270	317.02042919	-47.02
450	321.12757636	128.87
240	319.76623158	-79.77
483	321.55204473	161.45
427	320.47178376	106.53
444	320.80662208	123.19
478	321.59465552	156.41
294	320.42055921	-26.42
478	321.38983349	156.61
302	320.86891136	-18.87
192	165.26116294	26.74
437	320.68777885	116.31
451	321.09666273	129.9
233	319.51397082	-86.51
268	320.42892084	-52.43
489	321.50626340	167.49
210	319.88291541	-109.88
362	321.29014209	40.71
322	321.02422117	0.98
308	320.48985024	-12.49
165	163.56625875	1.43
246	286.18070263	-40.18
412	321.12240374	90.88
331	321.15875972	9.84
345	320.54203329	24.46
209	319.79493131	-110.79
315	320.46828069	-5.47
153	163.24793531	-10.25
328	320.59645237	7.4
280	319.57488057	-39.57

Mean Square Error = 8313.711829

Desired Output	Predict	Error
172	174.33812264	-2.34
488	482.23219742	5.77
294	314.60114061	-20.6
270	264.99621009	5.0
153	171.65878230	-18.66
330	341.77461016	-11.77
344	367.79488401	-23.79
319	348.10464088	-29.1
428	404.98248325	23.02
322	351.63767487	-29.64
240	248.82089219	-8.82
436	445.85461062	-9.85

351	372.64330083	-21.64
271	292.09628109	-21.1
410	420.13015947	-10.13
290	309.83584371	-19.84
160	173.04105033	-13.04
153	172.58335882	-19.58
370	385.73438047	-15.73
209	240.19091202	-31.19
164	173.38513749	-9.39
368	388.88771507	-20.89
153	171.96444422	-18.96
305	323.27084902	-18.27
317	341.90562836	-24.91
154	172.89420969	-18.89
326	326.59134095	-0.59
156	173.06268949	-17.06
280	296.19711115	-16.2
221	235.01973117	-14.02
335	358.17655837	-23.18

Mean Square Error = 343.135113

Desired Output	Predict	Error
447	461.14844131	-14.15
218	209.06415003	8.94
488	484.88135126	3.12
215	210.05197626	4.95
412	406.10677657	5.89
296	293.26327722	2.74
214	210.33113792	3.67
251	251.77535510	-0.78
231	224.70376785	6.3
300	297.68778315	2.31
248	223.89073033	24.11
300	238.63524489	61.36
485	485.01108483	-0.01
486	484.88593322	1.11
381	375.22859694	5.77
470	480.61506093	-10.62
153	163.29218946	-10.29
416	408.83877164	7.16
216	209.81654420	6.18
153	163.15649099	-10.16
333	328.26570623	4.73
470	472.49416697	-2.49
448	462.78957436	-14.79
466	458.50724416	7.49
224	181.88479499	42.12
404	393.55203028	10.45
433	397.50691784	35.49
467	469.78081741	-2.78
356	346.84824043	9.15
297	286.07750886	10.92
382	373.80804018	8.19

Mean Square Error = 288.126858

Desired Output	Predict	Error
325	319.19853977	5.8

209	223.03100406	-14.03
486	321.42469563	164.58
231	244.42598934	-13.43
393	320.90101389	72.1
214	222.38004065	-8.38
242	247.19059627	-5.19
490	321.43666243	168.56
475	321.40763800	153.59
259	308.22001856	-49.22
465	321.30745171	143.69
288	314.73720355	-26.74
327	319.33187347	7.67
252	306.49371596	-54.49
420	320.96402005	99.04
307	317.55952047	-10.56
490	321.43812399	168.56
454	321.20274307	132.8
422	321.10167749	100.9
309	318.34467275	-9.34
360	320.48750056	39.51
433	321.17553931	111.82
471	321.37003520	149.63
471	321.36641407	149.63
293	316.38216255	-23.38
390	320.84543374	69.15
238	233.33062244	4.67
490	321.43845096	168.56
341	319.98764548	21.01
361	320.38167869	40.62
490	321.43408410	168.57

Mean Square Error = 9708.30629

Desired Output	Predict	Error
328	345.75603601	-17.76
465	402.29854363	62.7
319	382.97826148	-63.98
489	406.04454904	82.96
390	363.80353616	26.2
156	176.39465058	-20.39
468	402.11745715	65.88
424	398.62124125	25.38
311	380.53272006	-69.53
322	375.32156013	-53.32
232	341.80380135	-109.8
288	367.25370280	-79.25
445	387.34179892	57.66
307	375.64418056	-68.64
459	401.99638527	57.0
213	333.68242359	-120.68
244	346.32965299	-102.33
211	333.60568282	-122.61
470	401.93289883	68.07
468	385.15584769	82.84
329	386.94403972	-57.94
440	401.67910249	38.32
350	348.90860012	1.09
323	384.32131851	-61.32
303	373.85818212	-70.86
305	374.72743246	-69.73

303	376.90363571	-73.9
396	396.76260299	-0.76
469	402.00108686	67.0
328	371.96380993	-43.96
153	174.11986805	-21.12

Mean Square Error = 4547.484452

Desired Output	Predict	Error
484	319.82883688	164.17
286	301.22781873	-15.23
427	316.21686985	110.78
490	320.20563066	169.79
457	317.91889607	139.08
208	251.98056441	-43.98
234	268.87244472	-34.87
260	272.54141686	-12.54
294	306.35338615	-12.35
390	314.18627059	75.81
156	159.96658606	-3.97
209	243.35192485	-34.35
465	319.33942026	145.66
238	273.02052632	-35.02
475	320.35484669	154.65
300	305.70149739	-5.7
450	317.56190739	132.44
470	318.64149568	151.36
262	297.57443410	-35.57
315	309.42623769	5.57
444	317.54167780	126.46
232	258.89538532	-26.9
245	274.21541661	-29.22
208	244.52476960	-36.52
460	317.14610028	142.85
178	159.98973742	18.01
276	299.29075474	-23.29
467	318.08429811	148.92
215	234.96521261	-19.97
303	294.35164860	8.65
315	308.11093417	6.89

Mean Square Error = 8033.672326

Desired Output	Predict	Error
241	489.99899849	-249.0
245	489.99900024	-245.0
208	489.99899464	-282.0
230	489.99899770	-260.0
215	489.99899385	-275.0
320	489.99900711	-170.0
246	489.99900075	-244.0
168	489.99894794	-322.0
340	489.99900349	-150.0
252	489.99900348	-238.0
209	489.99899398	-281.0
256	489.99900397	-234.0
413	489.99901013	-77.0
239	489.99899900	-251.0
306	489.99900726	-184.0

481	489.99901130	-9.0
290	489.99900537	-200.0
305	489.99900684	-185.0
153	489.99894178	-337.0
215	489.99899368	-275.0
308	489.99900712	-182.0
188	489.99895086	-302.0
214	489.99899415	-276.0
401	489.99901000	-89.0
274	489.99900488	-216.0
255	489.99899711	-235.0
296	489.99900655	-194.0
211	489.99899426	-279.0
253	489.99900362	-237.0
217	489.99899343	-273.0
247	489.99900112	-243.0

Mean Square Error = 55857.16129

Desired Output	Predict	Error
376	366.54263012	9.46
259	223.29288952	35.71
353	345.99468896	7.01
209	216.58379008	-7.58
290	268.00624996	21.99
235	222.87317334	12.13
313	308.37118154	4.63
398	344.17064420	53.83
460	472.94947571	-12.95
457	437.77686766	19.22
234	222.48427762	11.52
327	303.31372472	23.69
291	280.27082495	10.73
155	164.43030683	-9.43
291	283.29441533	7.71
385	378.59707909	6.4
325	322.36787883	2.63
153	163.85159972	-10.85
314	244.11612004	69.88
245	231.78325992	13.22
360	279.15470808	80.85
298	295.46515059	2.53
249	241.38707290	7.61
405	356.94914596	48.05
265	260.79799613	4.2
349	341.50451052	7.5
462	461.88710732	0.11
213	216.92484939	-3.92
236	225.66748901	10.33
210	219.18015861	-9.18
390	356.07578059	33.92

Mean Square Error = 712.253894

Desired Output	Predict	Error
471	472.84351647	-1.84
435	423.49683714	11.5
490	483.92980980	6.07
310	337.10227454	-27.1

455	464.90271750	-9.9
370	318.67687243	51.32
243	261.13342099	-18.13
315	324.48941615	-9.49
470	469.63796894	0.36
247	274.04432776	-27.04
237	184.39703135	52.6
240	268.93619832	-28.94
230	245.65683363	-15.66
456	475.67566527	-19.68
230	257.54287318	-27.54
430	445.44975027	-15.45
247	269.58080288	-22.58
156	168.76283671	-12.76
232	251.09733313	-19.1
288	268.22178285	19.78
468	479.17675469	-11.18
339	375.95439755	-36.95
236	263.84626343	-27.85
225	240.40562589	-15.41
340	285.96723110	54.03
374	399.38289840	-25.38
311	345.17242369	-34.17
397	417.56816007	-20.57
469	467.69916910	1.3
337	372.12445418	-35.12
410	407.77846278	2.22

Mean Square Error = 656.416665

Desired Output	Predict	Error
246	304.94210427	-58.94
447	334.34662531	112.65
314	316.18987485	-2.19
333	323.12073664	9.88
481	345.48619295	135.51
405	326.55152713	78.45
294	320.68836974	-26.69
207	188.35740078	18.64
288	319.45075289	-31.45
377	325.54993646	51.45
380	320.26600622	59.73
250	316.25396027	-66.25
212	254.25695885	-42.26
438	327.08061828	110.92
328	321.91932808	6.08
441	332.98335070	108.02
308	320.02349088	-12.02
417	327.56408864	89.44
490	348.49721645	141.5
253	316.85722875	-63.86
234	278.92385554	-44.92
235	255.38210618	-20.38
490	348.67371132	141.33
472	347.15301109	124.85
357	324.45364652	32.55
471	339.58615779	131.41
284	318.88162632	-34.88
292	319.73387814	-27.73
420	324.49999145	95.5

333		321.35987505		11.64
250		281.61910269		-31.62

Mean Square Error = 5807.7198

***** Mean Square Error Average : 9426.7989 *****
288.126858

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.43

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
456		153.00000390		303.0
288		153.00000258		135.0
427		153.00000296		274.0
478		153.00000638		325.0
209		153.00000222		56.0
276		153.00000243		123.0
337		153.00000269		184.0
428		153.00000305		275.0
462		153.00000363		309.0
351		153.00000261		198.0
288		153.00000245		135.0
478		153.00000462		325.0
330		153.00000289		177.0
232		153.00000220		79.0
486		153.00000570		333.0
234		153.00000221		81.0
335		153.00000259		182.0
328		153.00000282		175.0
172		153.00000158		19.0
485		153.00000577		332.0
232		153.00000217		79.0
490		153.00000574		337.0
486		153.00000506		333.0
209		153.00000223		56.0
398		153.00000291		245.0
317		153.00000266		164.0
422		153.00000291		269.0
471		153.00000405		318.0
260		153.00000236		107.0
382		153.00000269		229.0
417		153.00000269		264.0

Mean Square Error = 52716.032258

Desired Output		Predict		Error
209		232.00251514		-23.0
154		177.33096707		-23.33
345		319.85541615		25.14
307		316.65944070		-9.66
306		316.02470845		-10.02
239		280.30035555		-41.3

305	316.07196379	-11.07
412	321.12923320	90.87
340	319.04357230	20.96
397	321.06448947	75.94
155	177.53871473	-22.54
450	321.22778967	128.77
211	235.67984000	-24.68
475	321.40516707	153.59
349	319.99689724	29.0
297	313.37891825	-16.38
192	185.12558408	6.87
447	321.37226827	125.63
313	318.01759141	-5.02
308	316.82432745	-8.82
216	226.20254828	-10.2
236	248.14649696	-12.15
294	315.12431893	-21.12
211	235.82844903	-24.83
156	177.60994146	-21.61
457	321.29292456	135.71
483	321.43504535	161.56
470	321.37246992	148.63
248	269.37060002	-21.37
490	321.43623991	168.56
333	318.86358403	14.14

Mean Square Error = 5612.322906

Desired Output	Predict	Error
214	321.48201955	-107.48
303	321.48779867	-18.49
333	321.48809333	11.51
256	321.48689855	-65.49
401	321.48830313	79.51
311	321.48787663	-10.49
340	321.48545534	18.51
470	321.48839674	148.51
470	321.48834090	148.51
328	321.48767904	6.51
212	321.48213980	-109.48
390	321.48829775	68.51
490	321.48841707	168.51
246	321.48565924	-75.49
331	321.48762499	9.51
317	321.48781995	-4.49
160	321.41899165	-161.42
215	321.48190495	-106.48
450	321.48838634	128.51
233	321.48438489	-88.48
290	321.48023330	-31.48
490	321.48841923	168.51
390	321.48734810	68.51
448	321.48839710	126.51
459	321.48839292	137.51
370	321.48823730	48.51
230	321.48169255	-91.48
156	321.41760190	-165.42
445	321.48823433	123.51
214	321.48196535	-107.48
440	321.48838400	118.51

Mean Square Error = 10574.059606

Desired Output	Predict	Error
424	395.45733157	28.54
238	243.12117082	-5.12
410	357.77956974	52.22
433	383.54881170	49.45
322	314.18512434	7.81
231	225.77824871	5.22
265	263.01018607	1.99
251	255.75871726	-4.76
262	262.78117044	-0.78
207	166.50793421	40.49
302	284.59535255	17.4
240	222.10731739	17.89
468	463.20400700	4.8
307	294.25630095	12.74
325	317.55976995	7.44
322	296.65703789	25.34
250	240.13802180	9.86
464	472.69072038	-8.69
314	285.97633255	28.02
247	231.37419774	15.63
235	221.99412066	13.01
405	349.00748020	55.99
253	257.79105222	-4.79
213	213.66246705	-0.66
481	483.25156503	-2.25
153	163.61890387	-10.62
488	482.11693881	5.88
280	268.02140401	11.98
153	163.59116176	-10.59
153	163.67218627	-10.67
300	284.31708620	15.68

Mean Square Error = 470.031952

Desired Output	Predict	Error
310	298.89812396	11.1
436	423.58120710	12.42
447	436.60709474	10.39
235	218.31003855	16.69
274	266.62577127	7.37
410	388.50546301	21.49
208	215.79422154	-7.79
252	262.86946911	-10.87
329	316.91129906	12.09
490	476.67111770	13.33
249	251.70306077	-2.7
469	459.69011500	9.31
472	476.94701526	-4.95
444	431.84274908	12.16
245	226.62878418	18.37
327	303.66970650	23.33
215	211.67397253	3.33
300	298.65344104	1.35
210	216.80462459	-6.8
468	468.43063555	-0.43

315	303.69746604	11.3
156	170.84806707	-14.85
270	209.44635480	60.55
465	444.58072347	20.42
430	409.97311362	20.03
454	422.57333324	31.43
412	358.80374947	53.2
471	461.19212546	9.81
290	284.34964002	5.65
296	295.84108877	0.16
230	220.78224457	9.22

Mean Square Error = 379.167603

Desired Output	Predict	Error
259	287.51466027	-28.51
431	439.23106310	-8.23
433	437.92080794	-4.92
327	347.08046972	-20.08
344	364.69717597	-20.7
471	471.76054352	-0.76
328	271.51382837	56.49
293	317.66618417	-24.67
308	333.14723551	-25.15
291	314.30017971	-23.3
455	459.44021465	-4.44
466	459.85840883	6.14
376	390.05923597	-14.06
326	325.26148340	0.74
467	469.29463546	-2.29
164	169.28483768	-5.28
259	247.09071635	11.91
294	305.89908943	-11.9
237	204.83657961	32.16
234	245.65138559	-11.65
303	306.49273655	-3.49
280	272.52999304	7.47
469	466.44862919	2.55
294	322.40460436	-28.4
225	236.54877835	-11.55
413	395.32094843	17.68
153	168.32717694	-15.33
490	484.43971217	5.56
270	260.59934184	9.4
320	345.07942472	-25.08
328	357.46215614	-29.46

Mean Square Error = 375.245061

Desired Output	Predict	Error
470	468.27057826	1.73
217	209.85676234	7.14
236	225.68869494	10.31
271	260.05526932	10.94
405	375.70093778	29.3
165	164.62203344	0.38
489	484.67502359	4.32
253	252.68413044	0.32
341	337.21630296	3.78

475	485.87102713	-10.87
286	265.92779018	20.07
291	278.51389535	12.49
435	443.61122546	-8.61
489	484.69671889	4.3
252	253.51553446	-1.52
451	469.32663382	-18.33
209	211.86264259	-2.86
243	222.39172834	20.61
303	296.96626060	6.03
393	390.73847872	2.26
484	483.25967458	0.74
246	230.78706090	15.21
305	296.67431068	8.33
218	209.47915509	8.52
471	469.80300010	1.2
153	163.28396040	-10.28
361	352.94608663	8.05
292	269.41702681	22.58
188	166.23162655	21.77
314	243.76893280	70.23
268	259.31517766	8.68

Mean Square Error = 299.713542

Desired Output	Predict	Error
178	179.52167724	-1.52
240	208.62764976	31.37
241	209.30123240	31.7
319	308.99139047	10.01
370	299.24679953	70.75
294	292.43543387	1.56
168	179.33692551	-11.34
213	197.97075280	15.03
234	213.93511254	20.06
322	309.97656413	12.02
465	320.51831078	144.48
350	266.48296866	83.52
360	316.57789192	43.42
362	308.42684616	53.57
230	208.81164776	21.19
467	320.52656759	146.47
444	319.98608544	124.01
311	305.63938366	5.36
315	307.08128811	7.92
490	321.06983183	168.93
315	307.52885876	7.47
215	195.59486872	19.41
247	233.87975306	13.12
385	317.80707539	67.19
255	223.26130021	31.74
360	282.29475519	77.71
374	316.44230754	57.56
309	304.53209253	4.47
427	319.34747404	107.65
420	318.70137125	101.3
210	198.61794939	11.38

Mean Square Error = 4644.968281

Desired Output	Predict	Error
245	230.77455232	14.23
416	407.20650970	8.79
215	210.69985973	4.3
240	241.09128185	-1.09
356	345.23285331	10.77
231	224.73489611	6.27
308	287.17046739	20.83
437	433.96348026	3.04
325	320.17703883	4.82
465	474.14222999	-9.14
396	386.13959602	9.86
250	252.67766072	-2.68
380	328.81092159	51.19
365	354.95338116	10.05
357	349.39836385	7.6
488	483.58297396	4.42
209	213.92421973	-4.92
296	277.61491854	18.39
153	165.29916363	-12.3
153	165.23294328	-12.23
156	165.58963136	-9.59
368	359.10657659	8.89
300	241.09335372	58.91
377	360.27862133	16.72
224	175.06730272	48.93
244	225.65418376	18.35
242	222.70192408	19.3
441	438.99198037	2.01
288	238.17348762	49.83
214	212.86596259	1.13
221	207.95415067	13.05

Mean Square Error = 459.805623

Desired Output	Predict	Error
284	284.63907911	-0.64
438	319.36107943	118.64
288	290.94252287	-2.94
290	291.37653391	-1.38
339	314.11346743	24.89
298	301.66155992	-3.66
232	204.12949173	27.87
245	217.78074751	27.22
481	321.02699144	159.97
209	195.73598905	13.26
319	309.07528353	9.92
460	320.84109775	139.16
457	320.53266448	136.47
323	309.97565429	13.02
333	306.48932035	26.51
420	318.02117275	101.98
404	318.96842104	85.03
247	236.28020121	10.72
153	176.85241543	-23.85
208	192.75810187	15.24
246	184.90764346	61.09
460	320.47034154	139.53
208	193.37468957	14.63

470	320.96020855	149.04
353	315.69924892	37.3
305	302.33638441	2.66
381	317.83908578	63.16
468	321.05455691	146.95
390	314.62222069	75.38
490	321.14568753	168.85
390	318.57217757	71.43

Mean Square Error = 6819.794674

***** Mean Square Error Average : 8235.1142 *****
299.713542

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.44

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
490	483.11079397	6.89
288	264.37056379	23.63
153	170.19464994	-17.19
471	467.38753755	3.61
319	347.50879071	-28.51
344	365.10128720	-21.1
325	355.65876786	-30.66
315	336.41535480	-21.42
156	171.12352038	-15.12
349	371.30503790	-22.31
341	366.05930901	-25.06
438	417.81727998	20.18
188	174.18100044	13.82
235	249.12848291	-14.13
245	256.69825223	-11.7
327	336.04937098	-9.05
488	482.37916369	5.62
280	273.60524923	6.39
410	387.90355002	22.1
156	171.16132217	-15.16
401	403.42875047	-2.43
302	316.89784130	-14.9
444	456.14690937	-12.15
252	285.78110308	-33.78
249	266.55164938	-17.55
209	238.95699301	-29.96
485	481.77896740	3.22
260	266.19451717	-6.19
209	238.84561322	-29.85
417	405.04743476	11.95
305	329.95982897	-24.96

Mean Square Error = 360.021958

----- Desired Output ----- Predict ----- Error -----

215	153.01380064	61.99
447	153.25447078	293.75
237	153.01097467	83.99
475	153.49006796	321.51
311	153.05510127	157.94
456	153.35816463	302.64
471	153.33795661	317.66
490	153.56990957	336.43
207	153.00957849	53.99
488	153.53243297	334.47
424	153.17779996	270.82
416	153.18181895	262.82
211	153.01449164	57.99
361	153.10214830	207.9
490	153.57254595	336.43
319	153.06459044	165.94
153	153.00661266	-0.01
440	153.24316263	286.76
451	153.32525583	297.67
322	153.03873616	168.96
303	153.04623111	149.95
156	153.00732059	2.99
155	153.00706688	1.99
345	153.08761081	191.91
154	153.00690860	0.99
239	153.01594426	85.98
410	153.17120514	256.83
353	153.09497928	199.91
250	153.01538434	96.98
305	153.04585640	151.95
486	153.50649042	332.49

Mean Square Error = 48089.340013

Desired Output	Predict	Error
457	321.47156743	135.53
483	321.69911722	161.3
208	214.60392301	-6.6
247	241.74669536	5.25
470	321.59808446	148.4
331	315.70397696	15.3
430	320.94030322	109.06
153	164.39160478	-11.39
243	222.00044606	21.0
245	230.77193508	14.23
327	311.62573741	15.37
325	313.85457038	11.15
294	301.30580730	-7.31
475	321.64341396	153.36
235	221.58012321	13.42
413	319.43375647	93.57
422	320.74788779	101.25
153	164.46601552	-11.47
242	220.64099455	21.36
255	244.40021338	10.6
490	321.68153292	168.32
209	216.85775158	-7.86
231	222.48661256	8.51
256	272.02498636	-16.02
472	321.70800265	150.29

308	307.53035659	0.47
293	301.52446026	-8.52
468	321.71505363	146.28
314	249.56233339	64.44
270	241.13118048	28.87
215	215.04194989	-0.04

Mean Square Error = 6482.832252

Desired Output	Predict	Error
431	442.65534070	-11.66
291	312.98014659	-21.98
441	449.38910471	-8.39
467	467.04354999	-0.04
210	240.72655495	-30.73
466	463.97611350	2.02
308	319.42947441	-11.43
465	480.98865790	-15.99
420	398.27975551	21.72
230	255.77312641	-25.77
213	238.71448284	-25.71
232	256.24822017	-24.25
294	323.92929650	-29.93
470	480.60966729	-10.61
428	405.74659621	22.25
259	290.77388158	-31.77
253	285.72261587	-32.72
468	479.63997090	-11.64
217	238.14274885	-21.14
467	471.46887661	-4.47
396	409.36355998	-13.36
478	486.03711733	-8.04
420	415.80034438	4.2
317	342.53788312	-25.54
433	440.81765268	-7.82
328	277.21153253	50.79
153	166.48344182	-13.48
156	167.88542067	-11.89
462	468.81469382	-6.81
365	384.10285213	-19.1
168	169.15970129	-1.16

Mean Square Error = 415.623235

Desired Output	Predict	Error
209	237.09688911	-28.1
457	321.35345130	135.65
351	320.84327497	30.16
313	319.60207289	-6.6
310	319.14456401	-9.14
246	291.00137648	-45.0
307	318.93883896	-11.94
286	315.55990772	-29.56
450	321.31066018	128.69
374	320.97998254	53.02
470	321.42784651	148.57
470	321.40752376	148.59
164	186.14403019	-22.14
370	319.40225883	50.6

221	228.43493555	-7.43
370	320.97908658	49.02
211	241.90939629	-30.91
300	290.62910426	9.37
460	321.41329965	138.59
232	257.15875244	-25.16
208	229.92057067	-21.92
390	320.59054743	69.41
405	320.88924164	84.11
382	321.14071525	60.86
468	321.40545941	146.59
377	320.97499205	56.03
470	321.40909499	148.59
490	321.44846799	168.55
328	319.76780899	8.23
262	312.47268110	-50.47
296	317.56068057	-21.56

Mean Square Error = 6692.179394

Desired Output	Predict	Error
216	237.13142063	-21.13
245	257.45326450	-12.45
308	331.15802820	-23.16
397	412.63573694	-15.64
380	342.52807470	37.47
447	467.29682020	-20.3
208	231.66780970	-23.67
178	167.84045330	10.16
390	411.42118782	-21.42
292	304.77515990	-12.78
153	165.77176632	-12.77
212	239.82266977	-27.82
268	291.86936575	-23.87
339	364.99140769	-25.99
236	256.79286821	-20.79
290	310.21350427	-20.21
350	291.73249661	58.27
390	356.96257111	33.04
356	380.91477355	-24.91
210	241.45065884	-31.45
288	302.59511483	-14.6
294	319.65552475	-25.66
337	365.66188903	-28.66
481	482.87987698	-1.88
471	473.37599906	-2.38
412	389.53905979	22.46
192	172.97620507	19.02
265	291.07593782	-26.08
311	335.47487401	-24.47
241	254.46416411	-13.46
393	414.53419739	-21.53

Mean Square Error = 583.73749

Desired Output	Predict	Error
490	479.48405501	10.52
405	371.55714700	33.44
398	344.84744520	53.15

322	314.77133410	7.23
234	226.62752520	7.37
294	277.56330900	16.44
314	290.03565658	23.96
360	280.82440792	79.18
236	223.95149692	12.05
246	192.40211189	53.6
218	208.98635317	9.01
214	214.19861656	-0.2
307	296.98147358	10.02
390	372.14178944	17.86
232	222.95653145	9.04
233	221.93361908	11.07
490	478.94052363	11.06
248	237.40222575	10.6
486	478.58983814	7.41
471	462.90811994	8.09
213	215.47960052	-2.48
215	212.88316844	2.12
368	353.18039552	14.82
290	262.99192161	27.01
427	411.48779227	15.51
240	221.49321597	18.51
276	267.28212949	8.72
455	446.25057360	8.75
360	346.36456579	13.64
469	461.22960751	7.77
330	306.98228531	23.02

Mean Square Error = 574.975939

Desired Output	Predict	Error
230	245.82030577	-15.82
489	483.19341427	5.81
333	364.73473456	-31.73
381	403.24909439	-22.25
362	360.41596514	1.58
252	287.72783304	-35.73
153	168.24378815	-15.24
291	318.85423495	-27.85
244	255.73673436	-11.74
465	468.37742369	-3.38
165	169.92338127	-4.92
300	320.19520915	-20.2
238	248.17038784	-10.17
484	481.84974140	2.15
385	407.10580297	-22.11
315	339.63184619	-24.63
478	480.42793128	-2.43
437	446.33477550	-9.33
290	313.42081965	-23.42
306	329.60102028	-23.6
240	252.37584237	-12.38
435	444.26980478	-9.27
469	466.51562605	2.48
303	324.44053614	-21.44
209	241.11005171	-32.11
328	362.74206215	-34.74
315	347.17209241	-32.17
305	326.09565717	-21.1

259		244.07265731		14.93
288		312.34343552		-24.34
340		340.95339777		-0.95

Mean Square Error = 396.633716

Desired Output		Predict		Error
376		392.36162556		-16.36
247		255.97567109		-8.98
465		454.03146498		10.97
214		236.83846534		-22.84
297		303.17817452		-6.18
296		325.74236780		-29.74
335		356.86074292		-21.86
329		352.14486212		-23.14
240		267.20845222		-27.21
404		412.94103906		-8.94
320		346.84663065		-26.85
215		236.37642518		-21.38
160		170.73245033		-10.73
340		286.23737651		53.76
298		327.90216715		-29.9
450		456.80029273		-6.8
303		308.89650691		-5.9
322		351.36347604		-29.36
234		251.71578261		-17.72
309		336.09535272		-27.1
436		445.07726956		-9.08
433		413.00689594		19.99
323		344.51484868		-21.51
427		429.03912445		-2.04
448		466.17629716		-18.18
326		325.08798880		0.91
238		268.55766738		-30.56
357		379.07911567		-22.08
470		470.20740387		-0.21
328		358.43619381		-30.44
464		476.77644766		-12.78

Mean Square Error = 471.193342

Desired Output		Predict		Error
454		321.36376510		132.64
224		197.12554775		26.87
315		317.06927429		-2.07
444		321.36746695		122.63
490		321.46349343		168.54
246		270.93935325		-24.94
270		257.09040337		12.91
253		302.98885324		-49.99
459		321.40515587		137.59
300		317.60730957		-17.61
489		321.45952667		167.54
231		250.08763440		-19.09
214		233.14883209		-19.15
271		308.21784967		-37.22
230		250.58517545		-20.59
225		231.74879242		-6.75
234		247.65683007		-13.66

153	165.76207508	-12.76
280	310.54044138	-30.54
247	281.24770793	-34.25
172	170.43574847	1.56
288	313.54221601	-25.54
250	300.19895395	-50.2
481	321.46161435	159.54
412	321.25580472	90.74
209	234.18856723	-25.19
284	311.10825268	-27.11
333	318.87586838	14.12
460	321.39768276	138.6
251	300.78205362	-49.78
445	321.31700720	123.68

Mean Square Error = 6219.943168

***** Mean Square Error Average : 7028.6481 *****
360.021958

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.45

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
450	456.38063047	-6.38
417	406.47967754	10.52
471	469.31558848	1.68
153	168.32886282	-15.33
270	265.00151737	5.0
412	385.47672647	26.52
274	293.82237534	-19.82
236	252.68302046	-16.68
390	376.20452162	13.8
259	290.02120774	-31.02
208	232.30191893	-24.3
488	482.56182892	5.44
328	354.57034388	-26.57
247	267.97044272	-20.97
188	173.06634823	14.93
390	405.81709754	-15.82
489	483.41435914	5.59
246	264.61412748	-18.61
252	285.62683548	-33.63
438	414.23215398	23.77
490	483.65684281	6.34
340	287.65416216	52.35
209	239.13135477	-30.13
225	240.76768893	-15.77
253	286.03775361	-33.04
271	292.74888411	-21.75
478	480.39047804	-2.39
234	253.46253313	-19.46
290	311.59753516	-21.6
428	400.34278966	27.66

300		316.45514430		-16.46
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Mean Square Error = 472.344881

Desired Output	Predict	Error
215	321.42449475	-106.42
215	321.42668965	-106.43
350	321.48000972	28.52
456	321.49073854	134.51
270	321.27292878	-51.27
339	321.48522447	17.51
291	321.48471736	-30.48
235	321.46030576	-86.46
420	321.48655524	98.51
393	321.48750564	71.51
296	321.48372275	-25.48
357	321.48679852	35.51
410	321.48529205	88.51
210	321.43658432	-111.44
291	321.48501419	-30.49
360	321.48558280	38.51
234	321.46367947	-87.46
422	321.48735483	100.51
322	321.48624070	0.51
288	321.46837647	-33.47
248	321.47574474	-73.48
315	321.48613160	-6.49
231	321.45627618	-90.46
303	321.48604599	-18.49
470	321.49745833	148.5
469	321.49154766	147.51
246	317.34643757	-71.35
237	299.35238977	-62.35
325	321.48640036	3.51
245	321.46953244	-76.47
471	321.49236915	149.51

Mean Square Error = 6649.466532

Desired Output	Predict	Error
224	177.76745876	46.23
306	292.38896316	13.61
457	438.85913915	18.14
153	163.36572611	-10.37
156	163.87130300	-7.87
262	261.37810836	0.62
468	480.11226067	-12.11
260	239.16371586	20.84
246	232.37799885	13.62
303	287.33242092	15.67
323	312.37124301	10.63
444	442.80690084	1.19
256	257.07698208	-1.08
490	483.75450906	6.25
490	484.05534250	5.94
297	283.57904060	13.42
160	163.94124193	-3.94
168	164.47779298	3.52
468	468.07740613	-0.08

244	225.60591360	18.39
416	406.88046117	9.12
231	224.95353979	6.05
294	290.53154864	3.47
481	481.10987738	-0.11
230	224.69488978	5.31
305	293.03471834	11.97
294	283.69276961	10.31
153	163.59733468	-10.6
314	290.61964587	23.38
412	407.18681088	4.81
385	378.79963156	6.2

Mean Square Error = 183.860377

Desired Output	Predict	Error
280	489.92832452	-209.93
444	489.92838561	-45.93
370	489.92838107	-119.93
326	489.92835140	-163.93
433	489.92838456	-56.93
209	489.92834329	-280.93
210	489.92834293	-279.93
404	489.92838378	-85.93
459	489.92838500	-30.93
290	489.92836926	-199.93
329	489.92837944	-160.93
302	489.92836735	-187.93
430	489.92838443	-59.93
192	489.92830929	-297.93
153	489.92830336	-336.93
240	489.92835174	-249.93
467	489.92838498	-22.93
427	489.92838424	-62.93
214	489.92834344	-275.93
247	489.92835793	-242.93
466	489.92838202	-23.93
472	489.92837611	-17.93
490	489.92838569	0.07
475	489.92837788	-14.93
335	489.92837998	-154.93
218	489.92834441	-271.93
288	489.92837121	-201.93
333	489.92836676	-156.93
292	489.92837184	-197.93
485	489.92838379	-4.93
374	489.92838147	-115.93

Mean Square Error = 31696.035868

Desired Output	Predict	Error
424	321.50778325	102.49
437	321.57262184	115.43
401	321.55205206	79.45
236	260.32579049	-24.33
313	319.49660047	-6.5
413	321.40057941	91.6
484	321.59763565	162.4
344	320.90046991	23.1

311	319.22611337	-8.23
471	321.60606451	149.39
309	318.88688247	-9.89
255	278.88656565	-23.89
381	321.34939447	59.65
208	232.09669678	-24.1
153	167.15861141	-14.16
214	235.02470839	-21.02
333	320.57121748	12.43
315	319.39002511	-4.39
486	321.59556614	164.4
164	169.85149091	-5.85
317	319.77857666	-2.78
322	318.32451025	3.68
300	318.38785381	-18.39
447	321.61121561	125.39
178	173.52308192	4.48
460	321.60023759	138.4
300	279.36092072	20.64
208	233.08817049	-25.09
240	277.54824305	-37.55
265	308.11576750	-43.12
370	320.10632949	49.89

Mean Square Error = 5264.955345

Desired Output	Predict	Error
209	240.60178368	-31.6
252	298.54516013	-46.55
341	373.29457562	-32.29
345	376.41817619	-31.42
214	239.03716672	-25.04
294	315.91413755	-21.91
215	236.86072370	-21.86
454	452.82222361	1.18
319	353.34666478	-34.35
455	466.69246295	-11.69
327	340.20402241	-13.2
212	243.30077102	-31.3
230	239.79558124	-9.8
154	171.04593816	-17.05
230	249.03494005	-19.03
307	333.70392707	-26.7
233	248.08861550	-15.09
213	241.74824898	-28.75
317	350.52007382	-33.52
327	354.36347813	-27.36
294	328.73784443	-34.74
268	301.07702357	-33.08
298	334.67875233	-36.68
213	242.63580664	-29.64
153	169.69053913	-16.69
448	466.81967975	-18.82
325	358.34932239	-33.35
490	480.80794337	9.19
365	392.58809988	-27.59
234	248.01496137	-14.01
209	240.78682901	-31.79

Mean Square Error = 708.482668

Desired Output	Predict	Error
211	215.01995395	-4.02
209	213.12995895	-4.13
377	359.46024287	17.54
457	457.06971297	-0.07
217	209.82452705	7.18
465	474.78427745	-9.78
310	296.61537865	13.38
286	267.08180210	18.92
478	483.92803882	-5.93
153	163.99563316	-11.0
471	469.09121263	1.91
314	244.18685342	69.81
232	226.64416926	5.36
382	370.86029972	11.14
468	476.34226387	-8.34
308	298.01191152	9.99
290	271.75653373	18.24
288	275.75199746	12.25
153	163.54978815	-10.55
216	210.39673565	5.6
240	221.66695092	18.33
250	238.88427741	11.12
481	483.43523813	-2.44
315	292.43335829	22.57
328	248.83556128	79.16
155	164.14833203	-9.15
221	209.27647303	11.72
483	482.94472912	0.06
232	225.97888397	6.02
451	465.48949240	-14.49
433	392.79535509	40.2

Mean Square Error = 526.792077

Desired Output	Predict	Error
467	321.17727368	145.82
470	321.20385428	148.8
397	320.96187205	76.04
315	318.78085273	-3.78
238	301.61417177	-63.61
276	314.28353239	-38.28
322	318.72264603	3.28
470	321.20270409	148.8
251	306.66344756	-55.66
232	288.57682151	-56.58
311	318.51692665	-7.52
305	317.69241374	-12.69
464	321.23090661	142.77
436	321.07998395	114.92
245	283.84883831	-38.85
328	318.09526886	9.9
328	319.57060823	8.43
247	290.13670135	-43.14
410	320.93804581	89.06
319	319.07663416	-0.08
241	289.66066116	-48.66
293	316.02257284	-23.02

362	318.23705084	43.76
340	317.08752274	22.91
405	320.10562777	84.89
253	309.61234469	-56.61
470	321.19585602	148.8
239	304.52608222	-65.53
398	319.76807188	78.23
305	317.27500520	-12.28
249	296.75858381	-47.76

Mean Square Error = 5779.964897

Desired Output	Predict	Error
445	415.32617345	29.67
368	359.87273712	8.13
337	332.54159642	4.46
245	226.95376217	18.05
259	231.18834237	27.81
156	164.37940842	-8.38
447	448.04474421	-1.04
351	340.43267010	10.57
284	265.65259374	18.35
307	298.16664765	8.83
156	164.51829201	-8.52
427	421.92569762	5.07
296	293.53962402	2.46
209	213.92329000	-4.92
207	172.66064342	34.34
242	221.59219378	20.41
470	478.73193753	-8.73
303	288.06206592	14.94
356	346.49356723	9.51
156	164.37179967	-8.37
153	163.91778616	-10.92
330	312.31484624	17.69
211	216.95316883	-5.95
405	375.49684778	29.5
288	276.29321252	11.71
420	380.80335636	39.2
465	452.13800663	12.86
460	446.28234611	13.72
431	429.58990636	1.41
308	296.01684111	11.98
308	289.33283979	18.67

Mean Square Error = 280.863977

Desired Output	Predict	Error
441	320.67687962	120.32
450	320.47880129	129.52
333	318.14219945	14.86
331	318.29588862	12.7
475	320.93689673	154.06
280	316.46293570	-36.46
490	321.01045725	168.99
172	157.09603269	14.9
440	320.68385271	119.32
353	319.83335086	33.17
470	320.84483107	149.16

488	320.98207946	167.02
465	320.80772373	144.19
489	320.99689686	168.0
486	320.97613705	165.02
376	320.24173655	55.76
349	319.74286888	29.26
215	286.80388129	-71.8
390	320.35128043	69.65
250	313.03726023	-63.04
390	319.08888379	70.91
243	304.18388777	-61.18
238	295.03818085	-57.04
435	320.25276403	114.75
235	296.83969812	-61.84
165	156.21782317	8.78
360	315.99900791	44.0
490	321.00587772	168.99
462	320.79638535	141.2
490	321.01510976	168.98
320	318.74912447	1.25

Mean Square Error = 11394.592013

***** Mean Square Error Average : 6295.7359 *****
183.860377

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.46

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
255	236.81780938	18.18
303	304.46867135	-1.47
232	219.37789445	12.62
280	250.43695596	29.56
340	315.32764212	24.67
214	212.83837197	1.16
465	321.26235288	143.74
286	279.89440489	6.11
424	320.45549864	103.54
470	321.42500759	148.57
410	319.38794260	90.61
420	320.17416031	99.83
322	311.90078126	10.1
457	321.20433533	135.8
455	321.18131658	133.82
333	310.76029709	22.24
351	317.19097863	33.81
430	320.76680321	109.23
238	216.78981188	21.21
214	212.90505499	1.09
377	318.45475630	58.55
490	321.42681741	168.57
251	256.78577604	-5.79
314	241.69787155	72.3

308	303.75895021	4.24
153	162.40157949	-9.4
385	319.68273116	65.32
153	161.94227002	-8.94
466	321.31620559	144.68
211	214.62397108	-3.62
297	301.46536912	-4.47

Mean Square Error = 6020.597323

Desired Output	Predict	Error
437	349.27058012	87.73
212	319.80585418	-107.81
305	329.19746978	-24.2
327	333.18803510	-6.19
315	331.79393087	-16.79
300	330.87764418	-30.88
490	389.04663688	100.95
215	319.17199605	-104.17
405	335.78685595	69.21
209	319.45613374	-110.46
345	334.15063011	10.85
317	331.25614262	-14.26
319	332.22620130	-13.23
293	329.67968779	-36.68
361	335.14969737	25.85
398	335.76624548	62.23
291	329.26214333	-38.26
438	344.70538925	93.29
341	333.76381392	7.24
294	330.03214909	-36.03
270	322.15849561	-52.16
470	366.75714702	103.24
471	368.80989677	102.19
376	335.85116814	40.15
247	323.77789988	-76.78
252	326.04043334	-74.04
208	319.91931055	-111.92
245	322.11649928	-77.12
360	325.82204801	34.18
230	320.28300343	-90.28
240	320.51228120	-80.51

Mean Square Error = 4780.571781

Desired Output	Predict	Error
305	153.02189032	151.98
412	153.02189554	258.98
210	153.02179720	56.98
436	153.02194552	282.98
234	153.02182312	80.98
288	153.02182001	134.98
268	153.02186451	114.98
303	153.02188897	149.98
300	153.02182054	146.98
393	153.02192911	239.98
330	153.02188473	176.98
209	153.02179602	55.98
239	153.02181826	85.98

211	153.02179832	57.98
154	153.02194434	0.98
209	153.02179640	55.98
253	153.02186014	99.98
412	153.02188751	258.98
322	153.02189039	168.98
404	153.02193310	250.98
360	153.02192199	206.98
470	153.02195517	316.98
325	153.02188995	171.98
468	153.02195535	314.98
328	153.02182416	174.98
208	153.02180898	54.98
234	153.02181559	80.98
247	153.02183965	93.98
155	153.02193333	1.98
274	153.02186759	120.98
344	153.02191618	190.98

Mean Square Error = 29109.210723

Desired Output	Predict	Error
296	299.52067196	-3.52
357	337.54539289	19.45
457	443.46382385	13.54
464	463.51804562	0.48
243	220.40287937	22.6
308	297.71824934	10.28
230	218.34306513	11.66
390	365.28558487	24.71
311	306.62002303	4.38
160	164.81383025	-4.81
328	324.18007344	3.82
428	373.36262571	54.64
249	250.29837360	-1.3
247	242.39100371	4.61
209	214.57564934	-5.58
214	215.02546187	-1.03
447	431.58983723	15.41
447	454.47633293	-7.48
234	220.75450184	13.25
410	380.31795731	29.68
490	474.67549720	15.32
208	212.94276493	-4.94
294	281.64404554	12.36
290	272.16428246	17.84
246	235.14699139	10.85
339	319.65463573	19.35
329	313.33709177	15.66
470	457.34290334	12.66
472	474.81766925	-2.82
259	268.18300406	-9.18
291	289.31506303	1.68

Mean Square Error = 261.533642

Desired Output	Predict	Error
470	466.25951420	3.74
350	268.45832227	81.54

307	294.47629744	12.52
396	378.59943676	17.4
240	246.62045890	-6.62
333	326.06399433	6.94
382	366.47248841	15.53
462	459.27531300	2.72
478	478.54647394	-0.55
370	305.91466999	64.09
454	426.19741694	27.8
469	461.11576308	7.88
490	482.77333893	7.23
459	456.26041853	2.74
271	263.37741706	7.62
225	217.85286401	7.15
172	164.64068937	7.36
328	326.38538521	1.61
475	477.33657150	-2.34
433	392.03687965	40.96
362	337.86723163	24.13
413	367.02658841	45.97
292	272.37766196	19.62
192	168.89931719	23.1
156	163.76331933	-7.76
381	367.80432046	13.2
365	350.46555618	14.53
481	479.47947764	1.52
165	164.20880701	0.79
401	377.05465202	23.95
317	310.81055733	6.19

Mean Square Error = 612.548774

Desired Output	Predict	Error
489	482.59326690	6.41
240	220.48845597	19.51
213	210.66866305	2.33
215	207.61174195	7.39
331	326.06767901	4.93
280	267.45609949	12.54
471	466.05046079	4.95
488	482.38105153	5.62
450	418.27284015	31.73
153	161.77188472	-8.77
390	375.53504427	14.46
486	481.14405490	4.86
325	322.52549776	2.47
237	176.77627803	60.22
431	424.08021076	6.92
253	257.19672354	-4.2
471	467.24031022	3.76
328	326.06651254	1.93
448	454.28772002	-6.29
302	285.79329226	16.21
353	344.58520951	8.41
326	296.92996857	29.07
288	278.88973522	9.11
246	193.90820226	52.09
288	277.91304387	10.09
215	208.26131635	6.74
188	162.48708653	25.51

284		268.91346856		15.09
164		161.97591635		2.02
153		161.81290382		-8.81
213		211.54222912		1.46

Mean Square Error = 350.831652

Desired Output		Predict		Error
490		485.07413872		4.93
323		310.98361407		12.02
467		463.93076926		3.07
290		278.90639240		11.09
262		256.72834759		5.27
486		484.58125669		1.42
307		297.36467034		9.64
153		164.66545299		-11.67
242		218.77889436		23.22
327		314.93695215		12.06
215		209.22424556		5.78
405		366.48503943		38.51
232		224.79412590		7.21
441		443.87544022		-2.88
485		484.70150755		0.3
294		282.27844208		11.72
465		455.47041497		9.53
315		295.46763919		19.53
244		221.28091110		22.72
433		433.00239151		-0.0
296		276.36672327		19.63
168		166.16787020		1.83
483		484.97573873		-1.98
374		363.38448622		10.62
153		164.92998197		-11.93
256		253.01679055		2.98
460		477.10399230		-17.1
468		479.45621261		-11.46
309		302.80200393		6.2
315		305.12253972		9.88
444		448.11874556		-4.12

Mean Square Error = 167.11871

Desired Output		Predict		Error
490		489.99926894		0.0
178		489.99926802		-312.0
489		489.99926894		-1.0
209		489.99926873		-281.0
435		489.99926886		-55.0
153		489.99926786		-337.0
241		489.99926879		-249.0
478		489.99926894		-12.0
153		489.99926787		-337.0
260		489.99926877		-230.0
290		489.99926886		-200.0
303		489.99926887		-187.0
209		489.99926873		-281.0
320		489.99926887		-170.0
308		489.99926888		-182.0
322		489.99926885		-168.0

153	489.99926787	-337.0
230	489.99926873	-260.0
427	489.99926890	-63.0
397	489.99926890	-93.0
236	489.99926880	-254.0
349	489.99926889	-141.0
465	489.99926889	-25.0
390	489.99926885	-100.0
294	489.99926886	-196.0
156	489.99926795	-334.0
481	489.99926894	-9.0
470	489.99926893	-20.0
468	489.99926891	-22.0
422	489.99926890	-68.0
232	489.99926878	-258.0

Mean Square Error = 41181.483871

Desired Output	Predict	Error
416	489.99076222	-73.99
246	489.99071523	-243.99
233	489.99069721	-256.99
390	489.99074750	-99.99
218	489.99066803	-271.99
300	489.99074508	-189.99
456	489.99076844	-33.99
451	489.99076751	-38.99
156	489.99009068	-333.99
380	489.99074060	-109.99
319	489.99075099	-170.99
231	489.99069513	-258.99
248	489.99072269	-241.99
236	489.99069482	-253.99
467	489.99076764	-22.99
310	489.99074710	-179.99
221	489.99066701	-268.99
469	489.99076794	-20.99
490	489.99077201	0.01
235	489.99067996	-254.99
440	489.99076498	-49.99
315	489.99075008	-174.99
488	489.99077146	-1.99
217	489.99066907	-272.99
340	489.99071600	-149.99
270	489.99060733	-219.99
356	489.99075695	-133.99
259	489.99055170	-230.99
490	489.99077222	0.01
450	489.99076580	-39.99
265	489.99073383	-224.99

Mean Square Error = 34504.498165

Desired Output	Predict	Error
471	472.38849905	-1.39
475	485.75395792	-10.75
224	193.88725601	30.11
335	357.50433958	-22.5
156	166.18196486	-10.18

207	183.32971215	23.67
417	406.57573508	10.42
460	450.58119963	9.42
484	482.95323250	1.05
306	326.24106294	-20.24
370	383.42862187	-13.43
235	248.63555549	-13.64
216	236.35934653	-20.36
250	265.68262769	-15.68
337	364.13165516	-27.13
276	295.15844370	-19.16
252	285.40246285	-33.4
250	282.66332477	-32.66
444	459.26080831	-15.26
231	253.37146478	-22.37
298	329.16708749	-31.17
313	342.40113421	-29.4
311	334.55609817	-23.56
333	357.80979030	-24.81
368	386.34273195	-18.34
427	435.47881014	-8.48
245	257.76614932	-12.77
305	323.92036511	-18.92
314	317.72461363	-3.72
288	302.11212632	-14.11
420	397.31901861	22.68

Mean Square Error = 403.579252

***** Mean Square Error Average : 11739.1974 *****

167.11871

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.47000000000000003

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
232	251.52005168	-19.52
156	168.41732842	-12.42
217	236.45742708	-19.46
390	354.23003188	35.77
291	313.92550320	-22.93
475	479.10786814	-4.11
253	284.97611801	-31.98
208	237.28583098	-29.29
240	249.10353026	-9.1
428	399.14576484	28.85
156	168.53428494	-12.53
240	265.08627460	-25.09
322	327.80909963	-5.81
438	413.42145369	24.58
311	332.20676187	-21.21
326	321.65347849	4.35
231	252.13200822	-21.13
416	424.76185482	-8.76

300	267.13462587	32.87
340	336.90069104	3.1
240	251.32987240	-11.33
320	343.16085206	-23.16
209	240.83433744	-31.83
325	353.22069671	-28.22
237	200.23988535	36.76
209	240.35435220	-31.35
470	469.46862171	0.53
420	391.60311612	28.4
404	412.92420168	-8.92
456	473.56955361	-17.57
435	435.19402215	-0.19

Mean Square Error = 485.22371

Desired Output	Predict	Error
242	245.77421014	-3.77
331	364.92748158	-33.93
489	484.58911927	4.41
317	349.41034999	-32.41
478	485.75327779	-7.75
209	235.13096372	-26.13
256	283.18880336	-27.19
436	451.46904475	-15.47
370	328.78124048	41.22
231	247.91191537	-16.91
401	406.29517551	-5.3
469	473.63277674	-4.63
481	485.24291171	-4.24
472	485.86233260	-13.86
481	482.90243784	-1.9
236	247.44062776	-11.44
315	347.06857211	-32.07
470	471.18707428	-1.19
293	319.24720539	-26.25
486	484.35692558	1.64
303	320.88504813	-17.89
165	170.84209902	-5.84
412	396.95172515	15.05
490	484.85425611	5.15
291	311.81719990	-20.82
317	344.84271904	-27.84
465	471.87389128	-6.87
315	327.64309041	-12.64
483	484.87037844	-1.87
311	342.62439797	-31.62
252	282.02726698	-30.03

Mean Square Error = 386.624423

Desired Output	Predict	Error
467	489.99924957	-23.0
280	489.99901637	-210.0
251	489.99918541	-239.0
153	489.99892009	-337.0
270	489.99898703	-220.0
209	489.99911447	-281.0
488	489.99925729	-2.0

246	489.99916969	-244.0
405	489.99920960	-85.0
288	489.99920697	-202.0
447	489.99919744	-43.0
335	489.99923981	-155.0
300	489.99922128	-190.0
470	489.99922526	-20.0
465	489.99920825	-25.0
168	489.99892965	-322.0
464	489.99925882	-26.0
341	489.99923688	-149.0
333	489.99920064	-157.0
306	489.99922502	-184.0
382	489.99924908	-108.0
211	489.99911517	-279.0
490	489.99925779	0.0
328	489.99923356	-162.0
374	489.99924453	-116.0
361	489.99924176	-129.0
319	489.99923000	-171.0
156	489.99892686	-334.0
368	489.99924749	-122.0
314	489.99913093	-176.0
333	489.99923482	-157.0

Mean Square Error = 34047.290323

Desired Output	Predict	Error
178	169.53750892	8.46
360	352.61205103	7.39
444	438.86492420	5.14
213	207.97024313	5.03
390	326.54933334	63.45
232	214.52560676	17.47
241	213.18873496	27.81
211	210.11072924	0.89
488	472.16668637	15.83
239	239.00252176	-0.0
209	207.41439055	1.59
270	238.18138269	31.82
353	338.53289970	14.47
262	261.71580376	0.28
315	300.62681271	14.37
322	311.74933831	10.25
207	170.21497491	36.79
327	312.11268620	14.89
212	208.88770213	3.11
290	276.00446016	14.0
412	353.08681014	58.91
235	215.38393864	19.62
444	432.37778691	11.62
390	378.74733417	11.25
413	375.92658089	37.07
164	169.48079041	-5.48
208	202.38289747	5.62
385	371.28243230	13.72
410	396.79020599	13.21
232	217.13685927	14.86
333	308.96038846	24.04

Mean Square Error = 502.094677

Desired Output	Predict	Error
448	320.96290114	127.04
314	240.69101637	73.31
457	321.21861963	135.78
153	183.29302335	-30.29
459	321.24655014	137.75
345	316.45155445	28.55
290	294.89416486	-4.89
215	193.01423652	21.99
460	321.36767183	138.63
153	183.29270525	-30.29
253	268.26131348	-15.26
313	310.51279988	2.49
160	183.29047140	-23.29
381	319.26159905	61.74
221	191.06131393	29.94
305	305.09484623	-0.09
233	202.82443721	30.18
307	306.18979543	0.81
213	195.31939822	17.68
417	319.77497778	97.23
250	265.25233499	-15.25
420	320.02216209	99.98
457	321.22253624	135.78
467	321.32270648	145.68
462	321.27714095	140.72
323	311.49281385	11.51
224	183.60377102	40.4
230	204.22458500	25.78
209	194.89157926	14.11
268	276.75666857	-8.76
328	314.53888907	13.46

Mean Square Error = 5485.286619

Desired Output	Predict	Error
153	489.99946195	-337.0
234	489.99949263	-256.0
255	489.99949220	-235.0
337	489.99950098	-153.0
362	489.99949825	-128.0
380	489.99949809	-110.0
305	489.99949937	-185.0
469	489.99950435	-21.0
322	489.99949967	-168.0
248	489.99949544	-242.0
210	489.99949006	-280.0
339	489.99950127	-151.0
329	489.99950092	-161.0
309	489.99949976	-181.0
465	489.99950382	-25.0
427	489.99950337	-63.0
351	489.99950160	-139.0
238	489.99949364	-252.0
468	489.99950515	-22.0
280	489.99949777	-210.0
360	489.99949604	-130.0

422	489.99950322	-68.0
393	489.99950254	-97.0
344	489.99950144	-146.0
259	489.99949700	-231.0
296	489.99949906	-194.0
214	489.99949006	-276.0
215	489.99948963	-275.0
274	489.99949752	-216.0
460	489.99950358	-30.0
468	489.99950461	-22.0

Mean Square Error = 33633.870968

Desired Output	Predict	Error
349	317.03236386	31.97
470	321.39596743	148.6
298	306.36331841	-8.36
447	321.20112566	125.8
288	237.99377330	50.01
303	306.91137152	-3.91
328	253.74980966	74.25
471	321.41283244	149.59
478	321.44443893	156.56
405	320.24547222	84.75
259	211.85419352	47.15
433	320.93915925	112.06
286	284.03700162	1.96
245	227.00642583	17.99
398	319.57084778	78.43
247	242.48541684	4.51
410	319.03553770	90.96
271	276.62950186	-5.63
450	321.24070415	128.76
471	321.41174134	149.59
486	321.45891783	164.54
247	234.48876828	12.51
214	215.73353794	-1.73
489	321.47258526	167.53
215	215.27583870	-0.28
319	310.04994793	8.95
440	321.07822517	118.92
288	286.24842984	1.75
328	316.09267282	11.91
265	275.28423220	-10.28
153	163.33527807	-10.34

Mean Square Error = 7726.449026

Desired Output	Predict	Error
294	318.63342313	-24.63
247	293.71533694	-46.72
276	314.65299882	-38.65
445	321.30415453	123.7
390	321.15756334	68.84
218	222.41290126	-4.41
475	321.44038110	153.56
357	320.91824863	36.08
234	261.32127795	-27.32
424	321.25248512	102.75

238	246.91625342	-8.92
470	321.40866365	148.59
441	321.34549681	119.65
430	321.30137136	108.7
376	321.09804418	54.9
153	192.15345347	-39.15
451	321.37676259	129.62
330	319.58029169	10.42
188	192.39618749	-4.4
303	317.31264762	-14.31
154	192.19426912	-38.19
249	297.22422953	-48.22
315	319.77655121	-4.78
470	321.42473282	148.58
244	270.13455237	-26.13
377	320.99743600	56.0
433	321.22841587	111.77
308	319.38211245	-11.38
216	225.23176836	-9.23
365	320.98098847	44.02
484	321.43378016	162.57

Mean Square Error = 6492.77821

Desired Output	Predict	Error
490	482.84659508	7.15
284	267.04120475	16.96
230	220.64905915	9.35
302	283.53321166	18.47
246	210.13200339	35.87
292	271.13674142	20.86
288	275.85112866	12.15
153	163.68622575	-10.69
437	432.70762450	4.29
307	293.44998276	13.55
236	227.54397500	8.46
246	235.05769531	10.94
490	482.68986349	7.31
210	212.90209109	-2.9
215	209.66831335	5.33
431	428.37197935	2.63
308	286.67212929	21.33
290	278.83181275	11.17
294	281.74010578	12.26
155	164.26330047	-9.26
340	262.09076458	77.91
305	290.11146033	14.89
350	268.31297680	81.69
245	230.62137159	14.38
471	466.56356412	4.44
490	483.07839413	6.92
156	164.27430851	-8.27
454	430.81187603	23.19
485	482.02315136	2.98
455	454.64187688	0.36
294	274.40800197	19.59

Mean Square Error = 590.177971

Desired Output	Predict	Error
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153	169.69230762	-16.69
490	476.38764701	13.61
225	206.71607429	18.28
308	296.40250757	11.6
172	169.94341906	2.06
230	219.64308876	10.36
252	265.16394556	-13.16
245	230.84625911	14.15
296	282.76818507	13.23
260	241.00533336	18.99
310	298.45651777	11.54
327	306.63195626	20.37
490	476.48947043	13.51
396	375.43621921	20.56
427	403.38020473	23.62
153	169.69181910	-16.69
192	170.41035569	21.59
356	336.39442837	19.61
466	452.25070787	13.75
234	226.23860845	7.76
297	278.31657190	18.68
300	299.37489924	0.63
250	235.14024231	14.86
325	321.59365707	3.41
235	221.68620008	13.31
471	462.82499703	8.18
294	293.05811242	0.94
243	223.32124705	19.68
397	381.40538963	15.59
490	476.47899061	13.52
468	470.26848062	-2.27

Mean Square Error = 215.739897

***** Mean Square Error Average : 8956.5536 *****
215.739897

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.48

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
490	322.36078705	167.64
468	321.82459863	146.18
331	322.65741868	8.34
250	322.44831282	-72.45
339	321.63732156	17.36
413	321.51267367	91.49
307	321.97358807	-14.97
313	321.96339730	-8.96
239	322.35265852	-83.35
410	321.53798216	88.46
208	322.48643171	-114.49
231	322.25903041	-91.26

327	322.56098843	4.44
465	321.74908527	143.25
489	322.51200029	166.49
470	322.05007613	147.95
488	322.51356843	165.49
405	322.64018611	82.36
297	324.00880691	-27.01
156	160.80246260	-4.8
456	321.72006910	134.28
303	321.90764552	-18.91
460	321.76178527	138.24
422	321.53881747	100.46
333	322.70624968	10.29
218	322.27022785	-104.27
322	322.52161671	-0.52
410	321.50471908	88.5
327	321.72708682	5.27
424	321.54149093	102.46
154	160.77415927	-6.77

Mean Square Error = 9097.413971

Desired Output	Predict	Error
165	153.00187305	12.0
420	153.00140407	267.0
256	153.00149991	103.0
325	153.00120139	172.0
270	153.00179815	117.0
377	153.00103910	224.0
328	153.00147663	175.0
459	153.00098192	306.0
270	153.00223346	117.0
244	153.00160344	91.0
296	153.00129850	143.0
335	153.00109133	182.0
344	153.00105337	191.0
305	153.00130508	152.0
294	153.00140562	141.0
385	153.00103548	232.0
353	153.00111383	200.0
380	153.00175798	227.0
440	153.00093831	287.0
370	153.00106430	217.0
454	153.00120955	301.0
308	153.00132622	155.0
242	153.00159089	89.0
305	153.00131683	152.0
341	153.00114717	188.0
490	153.00106414	337.0
314	153.00174185	161.0
433	153.00095765	280.0
250	153.00187004	97.0
234	153.00163230	81.0
333	153.00117190	180.0

Mean Square Error = 37962.16129

Desired Output	Predict	Error
393	489.99941021	-97.0

240	489.99941116	-250.0
210	489.99941137	-280.0
208	489.99941131	-282.0
320	489.99941040	-170.0
374	489.99941025	-116.0
230	489.99941115	-260.0
416	489.99941017	-74.0
475	489.99941001	-15.0
209	489.99941138	-281.0
490	489.99940997	0.0
280	489.99941058	-210.0
290	489.99941134	-200.0
213	489.99941135	-277.0
430	489.99941015	-60.0
214	489.99941138	-276.0
288	489.99941104	-202.0
360	489.99941026	-130.0
214	489.99941137	-276.0
153	489.99941174	-337.0
246	489.99941092	-244.0
300	489.99941044	-190.0
471	489.99941005	-19.0
276	489.99941059	-214.0
455	489.99941009	-35.0
436	489.99941013	-54.0
246	489.99941240	-244.0
481	489.99941000	-9.0
231	489.99941115	-259.0
433	489.99941024	-57.0
259	489.99941064	-231.0

Mean Square Error = 40056.354839

Desired Output	Predict	Error
427	153.00988031	273.99
302	153.01168749	148.99
431	153.00981660	277.99
294	153.01152282	140.99
350	153.01223352	196.99
236	153.01200761	82.99
315	153.01171334	161.99
294	153.01168612	140.99
271	153.01167652	117.99
238	153.01231546	84.99
404	153.01016076	250.99
209	153.01231182	55.99
153	153.01691648	-0.02
305	153.01142251	151.99
441	153.00984506	287.99
245	153.01196113	91.99
356	153.01057540	202.99
445	153.01119247	291.99
288	153.01159900	134.99
376	153.01040373	222.99
465	153.01177138	311.99
247	153.01194210	93.99
240	153.01223001	86.99
315	153.01140208	161.99
326	153.01233703	172.99
325	153.01154909	171.99

246	153.01195222	92.99
308	153.01169433	154.99
417	153.01015993	263.99
303	153.01305666	149.99
178	153.01631475	24.98

Mean Square Error = 32496.463345

Desired Output	Predict	Error
466	462.47287659	3.53
224	178.43619351	45.56
447	460.25245164	-13.25
470	473.42204455	-3.42
211	243.33975139	-32.34
241	249.68287037	-8.68
232	251.94078281	-19.94
484	478.29709297	5.7
351	380.59623518	-29.6
357	386.95745633	-29.96
255	268.72654358	-13.73
361	388.45236400	-27.45
398	370.49490273	27.51
345	375.95713871	-30.96
292	309.66233754	-17.66
317	349.70932749	-32.71
444	462.06942186	-18.07
291	321.12244723	-30.12
450	439.80963633	10.19
155	177.29958662	-22.3
153	177.27600103	-24.28
490	478.83156881	11.17
390	417.36809920	-27.37
156	177.30209121	-21.3
153	177.27546451	-24.28
317	344.73080365	-27.73
216	231.34884472	-15.35
437	452.69905986	-15.7
214	240.22184847	-26.22
308	334.82106902	-26.82
153	177.27284707	-24.27

Mean Square Error = 555.743242

Desired Output	Predict	Error
153	161.54710685	-8.55
478	321.43144007	156.57
153	162.53693660	-9.54
235	219.92826120	15.07
490	321.46271451	168.54
215	213.97256360	1.03
328	315.05119973	12.95
315	311.00078873	4.0
362	318.94076499	43.06
471	321.40277001	149.6
288	294.39349528	-6.39
160	164.11394056	-4.11
405	320.43552878	84.56
390	320.00291516	70.0
314	310.47656446	3.52

323	310.85924743	12.14
210	216.92755035	-6.93
232	220.20439396	11.8
381	319.61072791	61.39
333	315.30087296	17.7
236	221.00456853	15.0
475	321.46541259	153.53
252	266.52816165	-14.53
485	321.46289487	163.54
293	300.38793774	-7.39
234	221.47551493	12.52
188	169.41962828	18.58
401	320.75833594	80.24
253	266.39799374	-13.4
435	321.32655273	113.67
230	216.55591252	13.44

Mean Square Error = 5332.141603

Desired Output	Predict	Error
486	321.32489174	164.68
153	182.80587105	-29.81
172	182.77419567	-10.77
211	197.49897669	13.5
215	193.51512674	21.48
207	183.05219699	23.95
212	196.62759783	15.37
322	311.82328422	10.18
209	195.56383290	13.44
368	318.59930378	49.4
300	229.19335921	70.81
329	313.98811824	15.01
290	296.21476994	-6.21
428	319.56199587	108.44
249	236.36765215	12.63
209	195.56383290	13.44
294	294.30054410	-0.3
286	287.06974677	-1.07
288	289.50742108	-1.51
262	276.20195821	-14.2
156	182.77782495	-26.78
370	310.35760043	59.64
397	320.19585900	76.8
465	321.07230731	143.93
215	193.77153337	21.23
470	321.17701748	148.82
208	193.13023563	14.87
328	244.29653740	83.7
490	321.37135582	168.63
478	321.34424774	156.66
412	320.36735824	91.63

Mean Square Error = 5547.492939

Desired Output	Predict	Error
472	320.33320654	151.67
315	301.91827303	13.08
420	316.33231243	103.67
450	318.98385651	131.02

382	314.87451522	67.13
337	308.54628760	28.45
247	230.53139548	16.47
412	311.24895040	100.75
225	188.99109894	36.01
444	318.64066359	125.36
247	232.06791549	14.93
340	240.61057290	99.39
470	319.76026041	150.24
488	320.47427217	167.53
464	320.06049598	143.94
310	297.70308787	12.3
390	305.53200282	84.47
486	320.50119503	165.5
192	175.69327576	16.31
470	320.19233599	149.81
311	300.78264120	10.22
457	318.22251242	138.78
328	302.65596789	25.34
447	318.39666547	128.6
489	320.51250530	168.49
291	286.92499321	4.08
306	296.91470502	9.09
490	320.57160987	169.43
460	318.62674178	141.37
396	315.81180600	80.19
252	260.46821128	-8.47

Mean Square Error = 11061.579842

Desired Output	Predict	Error
238	267.14775895	-29.15
168	172.59649309	-4.6
483	479.12911024	3.87
298	329.10653444	-31.11
209	240.25026076	-31.25
451	468.00598242	-17.01
360	303.87161652	56.13
448	462.76372914	-14.76
259	227.29152429	31.71
164	172.28725428	-8.29
457	460.38176132	-3.38
427	431.25289651	-4.25
365	386.05037367	-21.05
235	251.37366241	-16.37
490	480.60759615	9.39
209	240.42455454	-31.42
340	340.44807358	-0.45
467	466.23958825	0.76
240	248.61685029	-8.62
330	342.10842313	-12.11
462	463.91789666	-1.92
296	327.06869201	-31.07
311	335.34400239	-24.34
390	360.94807473	29.05
274	294.38467456	-20.38
290	311.37357744	-21.37
322	353.10603896	-31.11
153	171.62618411	-18.63
248	266.09743848	-18.1

468		466.85444429		1.15
471		465.62692990		5.37

Mean Square Error = 469.356042

Desired Output		Predict		Error
237		188.78804841		48.21
307		298.15582039		8.84
156		164.88199026		-8.88
234		219.16107755		14.84
470		470.80886923		-0.81
469		470.41277655		-1.41
280		259.82860366		20.17
215		210.05657360		4.94
221		207.51758609		13.48
309		303.48314009		5.52
438		407.00269820		31.0
245		230.61934717		14.38
300		282.69462994		17.31
471		471.29698936		-0.3
468		482.00667827		-14.01
265		259.96104743		5.04
245		225.63572056		19.36
230		222.84769380		7.15
481		485.39898812		-4.4
233		221.14664174		11.85
213		211.70128630		1.3
260		239.35502324		20.64
243		221.40305784		21.6
469		465.30696426		3.69
232		223.12158639		8.88
303		297.77239255		5.23
253		254.35711749		-1.36
467		461.99059034		5.01
319		308.94420172		10.06
251		253.02860241		-2.03
319		315.90866189		3.09

Mean Square Error = 218.654816

***** Mean Square Error Average : 14279.7362 *****

218.654816

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.49

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
302		283.68512843		18.31
310		283.68226108		26.32
412		283.68255123		128.32
315		283.68071839		31.32
481		283.67227059		197.33
215		283.70495186		-68.7

308	283.68185395	24.32
333	283.68325171	49.32
230	283.69925569	-53.7
209	283.70475734	-74.7
216	283.70577189	-67.71
303	283.69896409	19.3
325	283.67994092	41.32
488	283.67194977	204.33
286	283.68495479	2.32
233	283.69833641	-50.7
488	283.67205363	204.33
153	283.78805878	-130.79
288	283.69745838	4.3
490	283.67178403	206.33
351	283.67808830	67.32
472	283.67294384	188.33
467	283.67464693	183.33
253	283.68794060	-30.69
445	283.67785465	161.32
328	283.69597947	44.3
405	283.68255771	121.32
462	283.67380757	178.33
390	283.67663253	106.32
315	283.68222255	31.32
470	283.67359141	186.33

Mean Square Error = 13616.850658

Desired Output	Predict	Error
365	352.15597164	12.84
370	307.59784822	62.4
209	212.46868794	-3.47
225	211.22276436	13.78
153	164.25582048	-11.26
217	207.73080737	9.27
465	448.84668532	16.15
242	222.19902879	19.8
340	317.31773523	22.68
245	231.41377278	13.59
430	420.00631784	9.99
435	430.80157063	4.2
470	463.28275707	6.72
290	281.60524226	8.39
209	212.46868794	-3.47
471	467.26789839	3.73
153	164.08480438	-11.08
448	457.89072169	-9.89
208	206.03702303	1.96
486	481.03323638	4.97
210	214.37361508	-4.37
300	283.14931801	16.85
469	466.64695441	2.35
240	241.74266849	-1.74
280	258.27775454	21.72
311	298.59583295	12.4
218	207.10766923	10.89
265	262.77177186	2.23
382	370.90089266	11.1
319	306.32354829	12.68
317	309.73873829	7.26

Mean Square Error = 249.375055

Desired Output	Predict	Error
232	226.87803702	5.12
271	263.55042533	7.45
405	368.33689679	36.66
385	375.34156477	9.66
298	294.76021844	3.24
270	236.34736878	33.65
478	484.58524166	-6.59
427	417.30207519	9.7
214	208.77881699	5.22
413	368.87362107	44.13
401	378.69534341	22.3
320	314.30323621	5.7
178	163.54426259	14.46
156	162.56871080	-6.57
211	212.78712365	-1.79
470	468.77705330	1.22
404	387.51162994	16.49
250	239.18164942	10.82
440	438.19247164	1.81
156	162.42163742	-6.42
288	271.40567264	16.59
490	483.65793645	6.34
240	220.60084496	19.4
153	161.90358474	-8.9
490	483.57631593	6.42
481	484.09246255	-3.09
251	252.21778755	-1.22
215	208.74190802	6.26
319	314.36541043	4.63
468	476.58882035	-8.59
234	224.77250856	9.23

Mean Square Error = 227.003152

Desired Output	Predict	Error
224	198.86921302	25.13
262	293.76555319	-31.77
303	310.95114761	-7.95
232	231.11897878	0.88
460	321.46333844	138.54
308	312.82148457	-4.82
249	270.60752712	-21.61
464	321.46973186	142.53
417	320.73412864	96.27
333	318.22412988	14.78
247	257.63202710	-10.63
465	321.48686342	143.51
424	321.02939461	102.97
256	290.72460997	-34.72
362	320.00501560	41.99
294	312.17292702	-18.17
294	310.79401876	-16.79
486	321.49165139	164.51
247	263.54524309	-16.55
377	320.11392891	56.89

436	321.29328559	114.71
433	321.14103014	111.86
337	318.79468480	18.21
214	226.13473990	-12.13
447	321.47264874	125.53
468	321.45433914	146.55
339	318.42056072	20.58
252	291.05155055	-39.05
433	321.25020182	111.75
268	293.74488856	-25.74
294	312.79513114	-18.8

Mean Square Error = 6306.195039

Desired Output	Predict	Error
322	321.49952986	0.5
153	321.44441890	-168.44
416	321.49964905	94.5
410	321.49964572	88.5
323	321.49954735	1.5
456	321.49966982	134.5
305	321.49946083	-16.5
427	321.49965033	105.5
306	321.49949595	-15.5
381	321.49961333	59.5
237	321.48854023	-84.49
274	321.49940974	-47.5
483	321.49964552	161.5
380	321.49933383	58.5
214	321.49887520	-107.5
300	321.49944849	-21.5
451	321.49966872	129.5
361	321.49959050	39.5
422	321.49965145	100.5
410	321.49963824	88.5
467	321.49966109	145.5
246	321.49316401	-75.49
466	321.49962842	144.5
335	321.49957828	13.5
356	321.49961139	34.5
341	321.49956335	19.5
165	321.45972664	-156.46
328	321.49954371	6.5
471	321.49964742	149.5
490	321.49967307	168.5
235	321.49894644	-86.5

Mean Square Error = 9607.735981

Desired Output	Predict	Error
478	489.99986159	-12.0
154	489.99889300	-336.0
164	489.99892435	-326.0
315	489.99978333	-175.0
212	489.99956656	-278.0
208	489.99956829	-282.0
485	489.99985774	-5.0
469	489.99984379	-21.0
454	489.99982322	-36.0

292	489.99975668	-198.0
280	489.99974158	-210.0
322	489.99977008	-168.0
221	489.99955844	-269.0
160	489.99892033	-330.0
374	489.99981969	-116.0
450	489.99981854	-40.0
420	489.99978787	-70.0
350	489.99966750	-140.0
239	489.99963909	-251.0
330	489.99974471	-160.0
438	489.99980792	-52.0
172	489.99895192	-318.0
327	489.99979962	-163.0
288	489.99974464	-202.0
314	489.99964966	-176.0
300	489.99963645	-190.0
484	489.99986274	-6.0
153	489.99885771	-337.0
390	489.99973241	-100.0
244	489.99965398	-246.0
470	489.99982663	-20.0

Mean Square Error = 40395.322581

Desired Output	Predict	Error
215	183.02772525	31.97
328	305.81985862	22.18
333	294.92043468	38.08
325	302.13545818	22.86
420	301.89070517	118.11
457	320.49135574	136.51
303	291.76453799	11.24
322	297.41823491	24.58
296	291.42839406	4.57
209	190.69348553	18.31
259	166.36015646	92.64
245	219.62541167	25.37
234	195.78056900	38.22
255	219.93789315	35.06
428	312.72867537	115.27
231	192.11767972	38.88
396	300.29354201	95.71
236	196.87558311	39.12
471	329.93828552	141.06
353	297.31910142	55.68
248	250.11896783	-2.12
232	192.41334123	39.59
297	265.67594893	31.32
293	288.00020747	5.0
431	310.06277964	120.94
412	311.06565937	100.93
259	262.39277376	-3.39
390	305.78804854	84.21
311	292.74441125	18.26
329	287.33467896	41.67
208	197.78401763	10.22

Mean Square Error = 4330.00359

Desired Output	Predict	Error
360	281.85385628	78.15
307	297.49992357	9.5
357	352.01038166	4.99
475	486.56029869	-11.56
397	390.78333155	6.22
307	294.16070490	12.84
465	468.53161885	-3.53
489	485.11429996	3.89
168	165.24243639	2.76
490	485.33979965	4.66
296	278.21087341	17.79
444	455.09401264	-11.09
328	330.87265055	-2.87
247	237.83217080	9.17
490	485.49912945	4.5
209	214.29056168	-5.29
444	446.75862094	-2.76
294	273.56594444	20.43
475	481.35599908	-6.36
270	243.01711494	26.98
309	302.36229427	6.64
243	223.79696960	19.2
305	290.31703149	14.68
253	254.82756286	-1.83
207	171.98699692	35.01
153	164.12676821	-11.13
360	353.20313054	6.8
345	339.67269569	5.33
455	458.79377663	-3.79
317	311.36769899	5.63
241	222.86950202	18.13

Mean Square Error = 349.05341

Desired Output	Predict	Error
213	240.59278980	-27.59
215	238.51191504	-23.51
490	484.21745341	5.78
305	326.30080519	-21.3
213	239.85941609	-26.86
288	310.42588197	-22.43
370	387.71139351	-17.71
450	458.04215865	-8.04
250	283.81572606	-33.82
284	298.86089988	-14.86
315	327.65347938	-12.65
340	287.68748619	52.31
390	409.77210031	-19.77
230	255.09825231	-25.1
153	167.40581515	-14.41
230	249.59151102	-19.59
393	412.79054554	-19.79
313	344.15289735	-31.15
231	255.08626970	-24.09
246	261.66169528	-15.66
238	248.78997584	-10.79
192	176.14217162	15.86
349	375.66440204	-26.66

211	242.91317524	-31.91
326	326.09023075	-0.09
236	256.16318526	-20.16
437	445.29244852	-8.29
460	451.55454194	8.45
252	286.46350668	-34.46
238	270.87900182	-32.88
308	332.16817793	-24.17

Mean Square Error = 547.127723

Desired Output	Predict	Error
471	321.42818855	149.57
156	192.30174622	-36.3
246	291.41034224	-45.41
398	320.84227606	77.16
368	321.06723443	46.93
260	287.22504299	-27.23
209	234.60487417	-25.6
276	314.56915733	-38.57
489	321.45719688	167.54
210	239.66411562	-29.66
235	262.05416166	-27.05
155	192.30057602	-37.3
291	317.50350692	-26.5
290	317.21912926	-27.22
234	262.28346978	-28.28
470	321.44159871	148.56
153	192.28508676	-39.29
447	321.38275738	125.62
457	321.40224493	135.6
314	295.23887871	18.76
331	320.13318247	10.87
470	321.42713892	148.57
376	321.11828294	54.88
188	192.36441802	-4.36
291	317.88844405	-26.89
344	320.78380229	23.22
468	321.45035284	146.55
459	321.40613320	137.59
327	319.12794476	7.87
245	278.09408013	-33.09
490	321.45826520	168.54

Mean Square Error = 7248.227774

***** Mean Square Error Average : 8287.6895 *****
227.003152

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.5

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output | Predict | Error

309	308.17430915	0.83
268	272.14237682	-4.14
313	310.67178448	2.33
433	320.82754526	112.17
234	221.50813868	12.49
467	321.38850539	145.61
490	321.47645389	168.52
270	232.75555698	37.24
217	214.41149258	2.59
382	319.90515217	62.09
245	224.47735483	20.52
401	320.90475896	80.1
290	279.04527933	10.95
416	320.72362746	95.28
489	321.47518696	167.52
322	313.26679229	8.73
215	215.18548643	-0.19
448	321.16851011	126.83
328	315.27604092	12.72
462	321.36257006	140.64
291	294.14462487	-3.14
241	219.06054769	21.94
339	315.89450193	23.11
225	215.04736666	9.95
319	310.72640066	8.27
296	293.95701083	2.04
230	220.18372114	9.82
328	314.63721238	13.36
314	304.87568529	9.12
370	313.82337069	56.18
410	319.47442542	90.53

Mean Square Error = 5184.511687

Desired Output	Predict	Error
262	489.98206579	-227.98
470	489.98215147	-19.98
484	489.98216143	-5.98
457	489.98212831	-32.98
405	489.98209561	-84.98
465	489.98216572	-24.98
322	489.98208788	-167.98
234	489.98203094	-255.98
246	489.98204924	-243.98
212	489.98202484	-277.98
209	489.98202222	-280.98
390	489.98210084	-99.98
456	489.98214105	-33.98
325	489.98209028	-164.98
468	489.98214904	-21.98
450	489.98212310	-39.98
410	489.98210134	-79.98
274	489.98206615	-215.98
208	489.98202420	-281.98
427	489.98210561	-62.98
404	489.98209869	-85.98
288	489.98207812	-201.98
288	489.98207119	-201.98
454	489.98211871	-35.98
260	489.98203931	-229.98

460	489.98214428	-29.98
440	489.98211680	-49.98
209	489.98202269	-280.98
333	489.98209059	-156.98
314	489.98204329	-175.98
420	489.98210184	-69.98

Mean Square Error = 26897.876529

Desired Output	Predict	Error
248	153.00373265	95.0
308	153.00373121	155.0
280	153.00373171	127.0
209	153.00373898	56.0
489	153.00372543	336.0
472	153.00372467	319.0
213	153.00373873	60.0
156	153.00380058	3.0
470	153.00372682	317.0
471	153.00372684	318.0
208	153.00373799	55.0
245	153.00373468	92.0
303	153.00373626	150.0
390	153.00373142	237.0
305	153.00373069	152.0
344	153.00372951	191.0
214	153.00373895	61.0
237	153.00377275	84.0
308	153.00373030	155.0
238	153.00373545	85.0
291	153.00373097	138.0
296	153.00373065	143.0
242	153.00373551	89.0
214	153.00373880	61.0
153	153.00380487	-0.0
340	153.00373471	187.0
490	153.00372528	337.0
445	153.00372879	292.0
178	153.00379438	25.0
315	153.00373111	162.0
481	153.00372509	328.0

Mean Square Error = 34946.903226

Desired Output	Predict	Error
478	489.99953113	-12.0
153	489.99946375	-337.0
245	489.99952863	-245.0
265	489.99952956	-225.0
380	489.99952998	-110.0
488	489.99953115	-2.0
444	489.99953096	-46.0
422	489.99953084	-68.0
232	489.99952788	-258.0
155	489.99947045	-335.0
450	489.99953079	-40.0
306	489.99953013	-184.0
215	489.99952685	-275.0
470	489.99953102	-20.0

468	489.99953104	-22.0
349	489.99953049	-141.0
290	489.99952988	-200.0
288	489.99952845	-202.0
290	489.99952991	-200.0
483	489.99953115	-7.0
303	489.99953011	-187.0
468	489.99953102	-22.0
331	489.99953024	-159.0
307	489.99953015	-183.0
210	489.99952717	-280.0
305	489.99953013	-185.0
335	489.99953043	-155.0
325	489.99953026	-165.0
460	489.99953090	-30.0
164	489.99947506	-326.0
234	489.99952788	-256.0

Mean Square Error = 35661.451613

Desired Output	Predict	Error
417	489.99992862	-73.0
156	489.99189032	-333.99
172	489.99280204	-317.99
481	489.99992912	-9.0
465	489.99992900	-25.0
305	489.99992786	-185.0
455	489.99992894	-35.0
341	489.99992836	-149.0
436	489.99992884	-54.0
329	489.99992823	-161.0
221	489.99991628	-269.0
488	489.99992918	-2.0
360	489.99992846	-130.0
153	489.99098373	-336.99
300	489.99992490	-190.0
390	489.99992863	-100.0
405	489.99992859	-85.0
360	489.99992725	-130.0
276	489.99992715	-214.0
328	489.99992828	-162.0
478	489.99992911	-12.0
292	489.99992748	-198.0
322	489.99992821	-168.0
485	489.99992919	-5.0
467	489.99992901	-23.0
420	489.99992866	-70.0
351	489.99992839	-139.0
259	489.99992699	-231.0
240	489.99992244	-250.0
300	489.99992798	-190.0
424	489.99992871	-66.0

Mean Square Error = 28998.265171

Desired Output	Predict	Error
160	163.53578517	-3.54
377	318.73993692	58.26
303	298.97503907	4.02

311	309.85332698	1.15
350	282.17564215	67.82
317	311.81511935	5.18
327	310.70676392	16.29
470	321.40525282	148.59
328	249.37296719	78.63
246	230.24215654	15.76
293	300.38818104	-7.39
256	267.64346304	-11.64
413	319.68116644	93.32
224	190.66375153	33.34
471	321.41900323	149.58
469	321.40397279	147.6
317	312.31579386	4.68
235	219.19473480	15.81
288	292.85762958	-4.86
362	319.05755855	42.94
153	161.75702292	-8.76
365	318.94479873	46.06
246	206.60718613	39.39
398	319.66628274	78.33
368	318.99298443	49.01
294	301.73678487	-7.74
188	168.67201329	19.33
433	321.01151793	111.99
154	162.75505631	-8.76
235	219.66872482	15.33
252	267.69964175	-15.7

Mean Square Error = 3837.307316

Desired Output	Predict	Error
490	484.45392932	5.55
247	267.27234190	-20.27
253	286.00291538	-33.0
307	327.83677981	-20.84
326	322.27405058	3.73
259	260.97783121	-1.98
230	257.14228539	-27.14
294	308.78924475	-14.79
447	461.83662621	-14.84
340	340.77267942	-0.77
192	174.85925721	17.14
430	436.99333609	-6.99
297	300.81244924	-3.81
464	477.97536698	-13.98
315	338.43387388	-23.43
216	238.18236879	-22.18
412	417.88474796	-5.88
294	314.08353469	-20.08
156	167.77785167	-11.78
232	256.04791732	-24.05
315	337.05447625	-22.05
490	484.56554215	5.43
475	480.74155208	-5.74
431	442.91692075	-11.92
385	403.85323656	-18.85
374	387.94189520	-13.94
209	238.80114138	-29.8
490	484.51246231	5.49

250		266.09008664		-16.09
353		376.48593725		-23.49
490		484.51476874		5.49

Mean Square Error = 287.315406

Desired Output		Predict		Error
437		320.29009265		116.71
490		320.32180568		169.68
311		320.13253415		-9.13
165		171.00038908		-6.0
294		320.10020316		-26.1
475		320.34436354		154.66
218		318.26788352		-100.27
271		319.91872311		-48.92
441		320.29275683		120.71
153		170.02253482		-17.02
233		319.03391518		-86.03
330		320.16156403		9.84
230		318.37496231		-88.37
207		185.11001778		21.89
357		320.21599314		36.78
412		320.21827731		91.78
210		318.90521540		-108.91
156		170.53275512		-14.53
320		320.14436557		-0.14
298		320.11061266		-22.11
323		320.16221568		2.84
211		318.93292480		-107.93
427		320.28424300		106.72
168		171.22408973		-3.22
270		316.31372099		-46.31
486		320.31968786		165.68
447		320.29766865		126.7
252		319.90925939		-67.91
247		319.73041117		-72.73
211		318.95027435		-107.95
333		320.18950513		12.81

Mean Square Error = 7193.139716

Desired Output		Predict		Error
428		346.69304910		81.31
153		177.65469994		-24.65
208		202.05700160		5.94
444		381.38381617		62.62
236		226.41350085		9.59
470		414.96757691		55.03
213		202.49385882		10.51
238		204.54729574		33.45
370		330.34354680		39.66
308		304.97172907		3.03
465		396.87760910		68.12
243		218.38150746		24.62
345		323.34767901		21.65
244		223.30921820		20.69
466		402.30483013		63.7
253		273.91943761		-20.92
381		338.04575818		42.95

300	297.77692224	2.22
469	410.26191107	58.74
393	345.17369687	47.83
471	416.06515442	54.93
214	200.12799487	13.87
255	229.06313369	25.94
315	311.61554136	3.38
250	274.43863547	-24.44
490	446.87897885	43.12
280	200.95846847	79.04
397	345.37809332	51.62
337	320.52317798	16.48
240	207.39057679	32.61
209	200.21608560	8.78

Mean Square Error = 1677.684858

Desired Output	Predict	Error
333	318.99131585	14.01
376	360.12097299	15.88
486	479.49303471	6.51
471	465.85737275	5.14
231	219.07222458	11.93
231	221.31606867	9.68
356	339.94067360	16.06
438	400.29765160	37.7
251	263.68174201	-12.68
232	219.36925404	12.63
284	269.72907823	14.27
435	431.98175502	3.02
390	373.37406868	16.63
239	237.77281367	1.23
215	209.03026310	5.97
215	211.05730413	3.94
470	478.01281341	-8.01
240	231.65713152	8.34
286	271.01685326	14.98
361	344.91174193	16.09
153	170.68573258	-17.69
396	379.99210741	16.01
153	170.70446815	-17.7
249	252.04761556	-3.05
457	435.84322322	21.16
319	312.46750343	6.53
153	170.68521142	-17.69
451	460.60362625	-9.6
302	289.03339625	12.97
247	245.07680086	1.92
327	311.57041300	15.43

Mean Square Error = 197.068055

***** Mean Square Error Average : 14488.1524 *****
197.068055

----- Variable -----

Datafile : Flood data set
Nueral name : 8-10-6-1
Learning rate : 0.51

Momentum rate : 0.07

Activiaon Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
234	317.94110129	-83.94
214	315.30291272	-101.3
153	165.48708881	-12.49
253	320.86664555	-67.87
153	165.52147254	-12.52
153	165.42904419	-12.43
470	349.46246590	120.54
335	329.25125508	5.75
470	349.50330331	120.5
377	332.92260698	44.08
214	315.15652049	-101.16
416	339.81664613	76.18
485	356.26557133	128.73
475	347.70594666	127.29
270	308.96447005	-38.96
209	315.17468698	-106.17
331	323.73524775	7.26
236	318.15804382	-82.16
231	317.27050171	-86.27
291	322.78413796	-31.78
329	328.55040654	0.45
462	348.36899779	113.63
470	356.62448150	113.38
410	335.32421975	74.68
325	327.22561038	-2.23
360	333.05169520	26.95
290	322.62577595	-32.63
168	166.02281048	1.98
240	316.17760389	-76.18
303	319.05256163	-16.05
460	338.20239713	121.8

Mean Square Error = 5945.290652

Desired Output	Predict	Error
401	320.60839132	80.39
365	318.69253582	46.31
236	205.26971328	30.73
241	203.21191710	37.79
268	279.25146411	-11.25
252	269.68143971	-17.68
456	321.24832936	134.75
288	289.92254448	-1.92
448	320.93181588	127.07
412	320.12477740	91.88
290	299.29960916	-9.3
215	192.91348247	22.09
217	190.89922439	26.1
327	309.46278026	17.54
451	321.09395756	129.91
322	308.44581196	13.55
232	203.54498448	28.46
328	315.52801432	12.47
428	320.40685289	107.59

286	287.88865763	-1.89
433	320.62177983	112.38
390	319.81919707	70.18
319	312.68917413	6.31
309	309.03751780	-0.04
246	223.86381328	22.14
239	239.04255337	-0.04
216	191.39873152	24.6
468	321.43015869	146.57
454	321.10655460	132.89
490	321.42560660	168.57
249	237.91039527	11.09

Mean Square Error = 5538.964097

Desired Output	Predict	Error
450	489.99996290	-40.0
471	489.99996291	-19.0
351	489.99996276	-139.0
280	489.99996234	-210.0
465	489.99996283	-25.0
250	489.99996209	-240.0
306	489.99996257	-184.0
252	489.99996214	-238.0
259	489.99996221	-231.0
478	489.99996294	-12.0
156	489.99988367	-334.0
488	489.99996297	-2.0
233	489.99996114	-257.0
315	489.99996256	-175.0
445	489.99996278	-45.0
470	489.99996290	-20.0
192	489.99990675	-298.0
213	489.99996027	-277.0
472	489.99996292	-18.0
211	489.99996028	-279.0
315	489.99996263	-175.0
385	489.99996280	-105.0
209	489.99996017	-281.0
440	489.99996290	-50.0
404	489.99996284	-86.0
178	489.99989598	-312.0
224	489.99992694	-266.0
490	489.99996297	0.0
481	489.99996296	-9.0
153	489.99986703	-337.0
300	489.99996251	-190.0

Mean Square Error = 37752.451613

Desired Output	Predict	Error
437	321.32982736	115.67
208	238.33828112	-30.34
238	284.04600972	-46.05
486	321.45366377	164.55
420	321.19020009	98.81
153	186.37330280	-33.37
307	318.63082182	-11.63
323	319.89018798	3.11

325	319.68275347	5.32
225	229.76307818	-4.76
444	321.35480264	122.65
314	313.61460498	0.39
245	284.66272951	-39.66
235	266.61689026	-31.62
396	321.15351835	74.85
464	321.43467853	142.57
390	321.10010573	68.9
357	320.75883838	36.24
341	320.48325013	20.52
460	321.42952240	138.57
353	320.69629820	32.3
417	321.14629154	95.85
471	321.42047627	149.58
288	316.18091311	-28.18
465	321.40706153	143.59
489	321.45696523	167.54
242	266.83422930	-24.83
288	316.18100875	-28.18
370	320.87559517	49.12
340	318.12536926	21.87
250	272.32402354	-22.32

Mean Square Error = 6796.276529

Desired Output	Predict	Error
243	321.42248650	-78.42
381	321.47157632	59.53
155	163.39126195	-8.39
337	321.46951795	15.53
431	321.47307288	109.53
410	321.47254165	88.53
259	318.66398245	-59.66
296	321.46445186	-25.46
247	321.44260467	-74.44
405	321.47195347	83.53
284	321.46086871	-37.46
209	321.34013491	-112.34
290	321.34839551	-31.35
153	163.04793815	-10.05
247	321.43883930	-74.44
244	321.42634415	-77.43
397	321.47207121	75.53
398	321.46585654	76.53
246	310.70784253	-64.71
293	321.46341912	-28.46
380	321.46077580	58.54
489	321.47414949	167.53
215	321.33479749	-106.33
344	321.47057679	22.53
251	321.45247853	-70.45
467	321.47362846	145.53
490	321.47424191	168.53
172	164.46121229	7.54
153	162.96299716	-9.96
333	321.46928263	11.53
310	321.46605472	-11.47

Mean Square Error = 6065.826568

Desired Output	Predict	Error
333	369.64050670	-36.64
466	409.02260746	56.98
245	325.30906315	-80.31
245	324.29659596	-79.3
240	323.76269630	-83.76
302	349.21053970	-47.21
308	353.27078077	-45.27
208	323.33083396	-115.33
232	323.09876216	-91.1
237	291.32746726	-54.33
305	352.35931908	-47.36
164	160.37324754	3.63
154	159.95269452	-5.95
484	421.04288058	62.96
314	328.49492028	-14.49
405	377.33073944	27.67
294	340.50103099	-46.5
328	329.39031380	-1.39
322	361.27307192	-39.27
465	407.06095184	57.94
361	363.42298359	-2.42
213	322.96928040	-109.97
459	406.39758041	52.6
311	353.89189478	-42.89
376	364.66871753	11.33
457	401.58137670	55.42
156	160.17224800	-4.17
486	423.44245854	62.56
349	361.31403286	-12.31
483	424.25302291	58.75
333	367.50794935	-34.51

Mean Square Error = 3099.942342

Desired Output	Predict	Error
450	489.99983931	-40.0
209	489.99983539	-281.0
308	489.99983819	-182.0
315	489.99983822	-175.0
303	489.99983849	-187.0
211	489.99983546	-279.0
490	489.99983988	0.0
413	489.99983936	-77.0
221	489.99983515	-269.0
262	489.99983784	-228.0
424	489.99983947	-66.0
469	489.99983971	-21.0
350	489.99983715	-140.0
235	489.99983556	-255.0
153	489.99982366	-337.0
441	489.99983959	-49.0
327	489.99983893	-163.0
393	489.99983935	-97.0
271	489.99983794	-219.0
294	489.99983839	-196.0
253	489.99983770	-237.0
468	489.99983980	-22.0

234	489.99983635	-256.0
435	489.99983900	-55.0
382	489.99983934	-108.0
313	489.99983870	-177.0
209	489.99983539	-281.0
255	489.99983617	-235.0
300	489.99983656	-190.0
471	489.99983967	-19.0
248	489.99983729	-242.0

Mean Square Error = 35889.0

Desired Output	Predict	Error
230	204.75560469	25.24
297	249.49236800	47.51
291	292.26392879	-1.26
447	319.15119781	127.85
340	247.07332086	92.93
488	320.53257885	167.47
345	311.06015568	33.94
438	316.46410715	121.54
490	320.57529992	169.42
208	193.89979846	14.1
455	319.28189645	135.72
296	292.71375611	3.29
308	301.26311768	6.74
156	176.13978358	-20.14
210	195.26189491	14.74
215	191.30223369	23.7
307	300.16412259	6.84
457	319.38418535	137.62
447	319.00508549	127.99
315	304.66519076	10.33
311	302.78343717	8.22
467	319.52851120	147.47
362	303.73760287	58.26
209	194.67651354	14.32
481	320.53331934	160.47
469	319.63924520	149.36
274	275.61874577	-1.62
420	313.83006516	106.17
212	195.91668865	16.08
390	305.85048711	84.15
319	305.41164911	13.59

Mean Square Error = 8005.061342

Desired Output	Predict	Error
156	488.73791499	-332.74
330	488.74265871	-158.74
430	488.74310052	-58.74
207	488.74068344	-281.74
433	488.74310471	-55.74
374	488.74298126	-114.74
370	488.74248629	-118.74
294	488.74269769	-194.74
280	488.74227174	-208.74
276	488.74262980	-212.74
317	488.74275676	-171.74

240	488.74241412	-248.74
322	488.74283978	-166.74
210	488.74240853	-278.74
471	488.74312826	-17.74
294	488.74263692	-194.74
478	488.74319216	-10.74
490	488.74317978	1.26
160	488.73827366	-328.74
490	488.74319456	1.26
436	488.74312423	-52.74
298	488.74271354	-190.74
300	488.74274616	-188.74
326	488.74244944	-162.74
468	488.74314480	-20.74
422	488.74309620	-66.74
356	488.74298071	-132.74
328	488.74286210	-160.74
153	488.73664536	-335.74
247	488.74248743	-241.74
214	488.74241798	-274.74

Mean Square Error = 35981.058568

Desired Output	Predict	Error
390	153.00631310	236.99
475	153.00632817	321.99
230	153.00626096	76.99
238	153.00627364	84.99
231	153.00626348	77.99
328	153.00629037	174.99
265	153.00626619	111.99
360	153.00628148	206.99
256	153.00627155	102.99
288	153.00627496	134.99
246	153.00626976	92.99
218	153.00626492	64.99
270	153.00627655	116.99
292	153.00626078	138.99
470	153.00638007	316.99
234	153.00626500	80.99
412	153.00633107	258.99
444	153.00627804	290.99
368	153.00624224	214.99
188	153.00622833	34.99
260	153.00627832	106.99
230	153.00626763	76.99
232	153.00625895	78.99
427	153.00625886	273.99
490	153.00635744	336.99
303	153.00626272	149.99
215	153.00627013	61.99
320	153.00627222	166.99
427	153.00625590	273.99
305	153.00626509	151.99
305	153.00626499	151.99

Mean Square Error = 33347.436229

***** Mean Square Error Average : 17842.1308 *****

3099.942342

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.52

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
455	321.24268455	133.76
291	290.99430426	0.01
262	264.42530042	-2.43
319	310.17091914	8.83
246	205.23028373	40.77
451	321.22830809	129.77
333	314.78032155	18.22
296	301.72210828	-5.72
335	312.52732015	22.47
317	310.50744853	6.49
260	232.16574111	27.83
214	213.51282615	0.49
340	265.10119407	74.9
459	321.28892114	137.71
284	272.40823703	11.59
305	303.31364793	1.69
252	260.75750739	-8.76
290	289.06816317	0.93
215	212.83524434	2.16
468	321.41159771	146.59
305	300.00170924	5.0
239	231.07274663	7.93
481	321.46643857	159.53
454	321.21115698	132.79
337	314.74969347	22.25
433	320.75706051	112.24
209	213.76258236	-4.76
153	161.48199717	-8.48
302	298.22199524	3.78
308	300.93276575	7.07
489	321.46281102	167.54

Mean Square Error = 5449.642306

Desired Output	Predict	Error
381	489.98981449	-108.99
485	489.98898231	-4.99
253	489.99159748	-236.99
153	489.99441397	-336.99
300	489.99225683	-189.99
410	489.98963089	-79.99
153	489.99441414	-336.99
467	489.98909472	-22.99
234	489.99222180	-255.99
416	489.98941977	-73.99
235	489.99268013	-254.99
412	489.99103520	-77.99
448	489.98908158	-41.99

247	489.99201928	-242.99
370	489.99156764	-119.99
298	489.99101125	-191.99
457	489.98966644	-32.99
356	489.98990021	-133.99
249	489.99184096	-240.99
398	489.99091112	-91.99
471	489.98912309	-18.99
286	489.99117338	-203.99
322	489.99128048	-167.99
288	489.99229480	-201.99
470	489.98909301	-19.99
413	489.98957844	-76.99
315	489.99066092	-174.99
209	489.99277838	-280.99
311	489.99064793	-178.99
156	489.99434765	-333.99
362	489.99146704	-127.99

Mean Square Error = 34349.474294

Desired Output	Predict	Error
344	315.55308729	28.45
327	311.63037869	15.37
268	274.36745550	-6.37
156	162.83629221	-6.84
241	218.19651927	22.8
314	308.12979198	5.87
317	311.66251998	5.34
460	321.24387606	138.76
319	310.08137512	8.92
401	320.26476921	80.74
345	316.27352581	28.73
412	319.95168992	92.05
465	321.28725589	143.71
232	217.99464921	14.01
430	320.68256750	109.32
490	321.44388164	168.56
296	295.32127049	0.68
213	216.58267133	-3.58
365	318.15035570	46.85
424	320.25795329	103.74
235	219.51273223	15.49
490	321.44092495	168.56
390	319.62712009	70.37
437	320.91187174	116.09
237	207.71758858	29.28
153	160.30960226	-7.31
490	321.44327155	168.56
393	319.86194798	73.14
490	321.43765000	168.56
294	304.57170837	-10.57
288	295.49774285	-7.5

Mean Square Error = 7141.420174

Desired Output	Predict	Error
471	489.99999407	-19.0
276	489.99999403	-214.0

280	489.99999404	-210.0
380	489.99999399	-110.0
307	489.99999413	-183.0
330	489.99999407	-160.0
470	489.99999408	-20.0
483	489.99999405	-7.0
209	489.99999267	-281.0
328	489.99999412	-162.0
246	489.99999362	-244.0
178	489.99997768	-312.0
156	489.99997444	-334.0
153	489.99997234	-337.0
240	489.99999289	-250.0
320	489.99999413	-170.0
216	489.99999265	-274.0
247	489.99999366	-243.0
156	489.99997476	-334.0
234	489.99999322	-256.0
488	489.99999401	-2.0
155	489.99997388	-335.0
288	489.99999405	-202.0
215	489.99999266	-275.0
256	489.99999394	-234.0
242	489.99999342	-248.0
444	489.99999408	-46.0
294	489.99999404	-196.0
410	489.99999411	-80.0
271	489.99999401	-219.0
230	489.99999269	-260.0

Mean Square Error = 50294.612903

Desired Output	Predict	Error
472	321.50329823	150.5
215	321.51144071	-106.51
259	321.52886095	-62.53
232	321.50819992	-89.51
462	321.50266297	140.5
465	321.50371542	143.5
225	321.51150149	-96.51
248	321.50621330	-73.51
214	321.51136447	-107.51
470	321.50269123	148.5
323	321.50337770	1.5
153	321.57577607	-168.58
234	321.50791508	-87.51
456	321.50263455	134.5
250	321.50580067	-71.51
331	321.50437499	9.5
390	321.50494383	68.5
445	321.50312172	123.5
420	321.50356489	98.5
247	321.50638314	-74.51
303	321.50384216	-18.5
470	321.50265127	148.5
325	321.50402024	3.5
450	321.50304718	128.5
303	321.50917220	-18.51
490	321.50275238	168.5
460	321.50263786	138.5

230	321.50837508	-91.51
315	321.50352377	-6.5
280	321.51791152	-41.52
315	321.50467663	-6.5

Mean Square Error = 10521.563506

Desired Output	Predict	Error
244	153.00185170	91.0
360	153.00174873	207.0
441	153.00172917	288.0
471	153.00172202	318.0
238	153.00185519	85.0
233	153.00186206	80.0
208	153.00187260	55.0
374	153.00174933	221.0
333	153.00179003	180.0
489	153.00171169	336.0
240	153.00186633	87.0
405	153.00174330	252.0
306	153.00178047	153.0
438	153.00174793	285.0
213	153.00187515	60.0
288	153.00179693	135.0
308	153.00177800	155.0
353	153.00175649	200.0
431	153.00173071	278.0
300	153.00178520	147.0
450	153.00172630	297.0
370	153.00175144	217.0
236	153.00185230	83.0
172	153.00146912	19.0
490	153.00171203	337.0
313	153.00177623	160.0
154	153.00143622	1.0
465	153.00172273	312.0
188	153.00148705	35.0
245	153.00184923	92.0
322	153.00176876	169.0

Mean Square Error = 39475.709677

Desired Output	Predict	Error
236	321.46360098	-85.46
351	321.47578884	29.52
153	321.64336721	-168.64
207	321.48847769	-114.49
350	321.46689971	28.53
436	321.47707344	114.52
427	321.47682376	105.52
486	321.47762455	164.52
251	321.47000513	-70.47
294	321.47286183	-27.47
427	321.47693955	105.52
246	321.46709139	-75.47
217	321.46004444	-104.46
468	321.47730884	146.52
361	321.47568641	39.52
221	321.45966976	-100.46

357	321.47559382	35.52
327	321.47245763	5.53
420	321.47666756	98.52
209	321.46110025	-112.46
328	321.47489548	6.53
468	321.47616563	146.52
390	321.47643683	68.52
210	321.46112232	-111.46
478	321.47757893	156.52
164	321.57951153	-157.58
218	321.45987043	-103.46
209	321.46110025	-112.46
326	321.46835257	4.53
376	321.47625793	54.52
475	321.47756149	153.52

Mean Square Error = 10643.693523

Desired Output	Predict	Error
469	321.41413616	147.59
422	320.77261722	101.23
368	318.94583094	49.05
417	320.04148375	96.96
328	316.42290151	11.58
211	217.19142638	-6.19
471	321.43107893	149.57
308	306.48641414	1.51
245	225.06034057	19.94
470	321.48485441	148.52
160	163.91230402	-3.91
250	233.66612740	16.33
294	287.17840807	6.82
433	321.02097363	111.98
153	161.49992051	-8.5
447	321.45831445	125.54
457	321.33031021	135.67
478	321.48365054	156.52
329	312.75279826	16.25
349	317.22203891	31.78
168	165.93523092	2.06
405	320.44090016	84.56
467	321.41996633	145.58
208	215.22314024	-7.22
214	215.43102729	-1.43
297	307.97967982	-10.98
404	320.34948098	83.65
385	319.92804257	65.07
265	269.55759217	-4.56
309	307.71829641	1.28
333	315.24915832	17.75

Mean Square Error = 6510.012497

Desired Output	Predict	Error
245	271.41266815	-26.41
243	263.28107734	-20.28
339	376.01258471	-37.01
469	464.70043724	4.3
303	339.01446695	-36.01

447	455.52019061	-8.52
314	275.20029297	38.8
310	340.91851280	-30.92
307	337.63680425	-30.64
360	304.23530002	55.76
377	403.18431493	-26.18
224	180.70359754	43.3
231	258.09836382	-27.1
390	365.54852231	24.45
259	299.57641957	-40.58
253	296.76168044	-43.76
291	325.25744395	-34.26
232	258.39252819	-26.39
440	452.29109860	-12.29
466	461.52007576	4.48
238	251.34500122	-13.35
293	328.32281639	-35.32
490	475.60026520	14.4
305	335.04438680	-30.04
311	348.94825085	-37.95
475	477.50839334	-2.51
470	466.97481331	3.03
211	248.85981467	-37.86
340	339.68490358	0.32
215	244.48864375	-29.49
490	475.60371195	14.4

Mean Square Error = 850.739223

Desired Output	Predict	Error
209	323.25288230	-114.25
210	323.23837488	-113.24
240	324.11178730	-84.11
230	323.87975087	-93.88
428	324.45647427	103.54
153	209.96399375	-56.96
270	323.56580660	-53.57
274	324.55166352	-50.55
255	323.47263330	-68.47
165	226.03536198	-61.04
231	323.95776310	-92.96
484	324.12100934	159.88
341	325.28843366	15.71
488	323.64073439	164.36
328	323.79035598	4.21
290	322.92510182	-32.93
397	326.01491463	70.99
300	324.37300496	-24.37
444	325.64648786	118.35
212	323.24515219	-111.25
322	324.37888325	-2.38
208	323.25025858	-115.25
481	324.21006255	156.79
382	326.31976700	55.68
325	325.01803403	-0.02
290	324.18714252	-34.19
192	260.61454305	-68.61
464	324.68788495	139.31
315	324.70474964	-9.7
486	323.58063861	162.42

396		326.32699390		69.67
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Mean Square Error = 8443.058832

***** Mean Square Error Average : 17367.9927 *****

850.739223

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.53

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
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247		321.42886978		-74.43
438		321.46043704		116.54
286		321.45070038		-35.45
396		321.46405377		74.54
232		321.36978242		-89.37
259		321.44422633		-62.44
328		321.45202593		6.55
234		321.41197433		-87.41
340		321.43691548		18.56
306		321.45610074		-15.46
357		321.46152061		35.54
465		321.46533650		143.53
224		300.67568791		-76.68
293		321.45152822		-28.45
231		321.40693848		-90.41
468		321.46533085		146.53
330		321.44912150		8.55
427		321.46461441		105.54
353		321.46120668		31.54
213		321.36896294		-108.37
235		321.37423539		-86.37
310		321.45532417		-11.46
470		321.46590131		148.53
488		321.46567249		166.53
315		321.45811753		-6.46
315		321.45543273		-6.46
356		321.46267026		34.54
153		159.33694146		-6.34
230		321.36362992		-91.36
427		321.46484426		105.54
221		321.35679566		-100.36

Mean Square Error = 6983.690884

Desired Output		Predict		Error
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153		321.51919977		-168.52
280		322.17790532		-42.18
247		325.49218700		-78.49
209		321.75855541		-112.76
270		324.24278657		-54.24
305		362.74536570		-57.75
255		323.84332501		-68.84

188	321.51328066	-133.51
274	334.27907497	-60.28
303	345.92956695	-42.93
413	410.57418207	2.43
214	321.79985076	-107.8
314	355.43195503	-41.43
213	321.84202190	-108.84
470	473.05401906	-3.05
232	322.04508696	-90.05
290	326.33777460	-36.34
328	387.73114645	-59.73
302	353.64134263	-51.64
211	321.91453685	-110.91
245	323.60539559	-78.61
292	340.81449649	-48.81
308	365.37871656	-57.38
405	411.64248506	-6.64
393	424.79999546	-31.8
296	346.46770852	-50.47
300	324.46148407	-24.46
210	321.87536749	-111.88
322	367.02140260	-45.02
246	321.45826591	-75.46
153	321.51753910	-168.52

Mean Square Error = 6491.200894

Desired Output	Predict	Error
317	310.52985522	6.47
300	295.38921124	4.61
236	216.32728747	19.67
470	321.32733330	148.67
444	320.98092435	123.02
485	321.43959368	163.56
471	321.34675937	149.65
259	211.21570158	47.78
305	302.98826872	2.01
362	317.91638735	44.08
368	318.98896848	49.01
441	321.04097229	119.96
467	321.29185305	145.71
271	270.33138941	0.67
457	321.21420287	135.79
464	321.35242121	142.65
377	318.52455980	58.48
481	321.39862019	159.6
390	319.93852721	70.06
420	320.20708645	99.79
246	228.14127483	17.86
246	225.00717589	20.99
344	316.51215105	27.49
472	321.43754833	150.56
390	319.00334133	71.0
208	210.07332934	-2.07
209	211.18316507	-2.18
398	319.16100415	78.84
303	304.09048272	-1.09
268	268.99291497	-0.99
276	273.81569793	2.18

Mean Square Error = 7970.667694

Desired Output	Predict	Error
420	321.11707165	98.88
339	320.49117536	18.51
484	321.44709887	162.55
156	174.35222738	-18.35
225	236.50273966	-11.5
153	171.08117119	-18.08
217	234.91290121	-17.91
323	319.86965136	3.13
209	240.75410389	-31.75
447	321.40975787	125.59
436	321.33808265	114.66
412	321.05506108	90.94
327	320.03442646	6.97
215	238.39159323	-23.39
215	237.76570319	-22.77
490	321.45676800	168.54
298	318.66900827	-20.67
478	321.45374613	156.55
300	318.83612390	-18.84
340	306.17006295	33.83
465	321.43291060	143.57
247	281.93578580	-34.94
153	171.48209952	-18.48
208	237.68607005	-29.69
319	319.71636875	-0.72
296	318.44302018	-22.44
412	321.26389406	90.74
303	317.89338879	-14.89
328	320.34833645	7.65
153	170.92516099	-17.93
333	319.84822983	13.15

Mean Square Error = 5302.895829

Desired Output	Predict	Error
284	292.30016345	-8.3
232	216.13692732	15.86
328	250.09663525	77.9
490	322.32766729	167.67
209	203.64315403	5.36
241	217.84045761	23.16
294	300.43262250	-6.43
297	264.41534937	32.58
455	321.53666901	133.46
233	216.88309770	16.12
490	322.31765447	167.68
160	180.71268521	-20.71
156	180.71338564	-24.71
153	180.71417126	-27.71
207	180.70459475	26.3
404	319.40163075	84.6
290	300.03953051	-10.04
252	281.95497921	-29.95
212	205.60378360	6.4
351	315.84500473	35.15
385	318.45482130	66.55

214	203.23195347	10.77
361	316.45839670	44.54
486	322.34045613	163.66
331	311.74770165	19.25
240	226.94186732	13.06
153	180.71470242	-27.71
238	235.54557424	2.45
382	318.38990251	63.61
154	180.71449495	-26.71
457	320.69374400	136.31

Mean Square Error = 4911.509997

Desired Output	Predict	Error
250	299.35933291	-49.36
444	320.94611552	123.05
288	310.75289944	-22.75
240	256.06789899	-16.07
450	320.71733922	129.28
209	235.51465611	-26.51
218	229.57577231	-11.58
416	320.64670179	95.35
265	305.46553920	-40.47
417	320.41055141	96.59
253	302.21461181	-49.21
460	321.17927210	138.82
251	299.94170703	-48.94
470	321.19650653	148.8
470	321.14728634	148.85
290	311.71442480	-21.71
234	264.23237968	-30.23
325	317.32922155	7.67
288	311.17601595	-23.18
471	321.14649534	149.85
435	320.56166690	114.44
450	321.00539822	128.99
249	289.64604811	-40.65
469	321.10659193	147.89
262	305.04287660	-43.04
322	317.87715387	4.12
252	300.78261208	-48.78
308	316.13679278	-8.14
315	313.65096185	1.35
360	319.83456266	40.17
230	256.47101320	-26.47

Mean Square Error = 6731.442384

Desired Output	Predict	Error
307	306.73297595	0.27
374	319.12042078	54.88
327	311.07705303	15.92
341	317.00673579	23.99
345	317.20336501	27.8
250	235.09666826	14.9
431	321.11952542	109.88
311	309.81040566	1.19
488	321.47288723	166.53
459	321.38616985	137.61

168	165.47407400	2.53
437	321.18946155	115.81
215	216.31747187	-1.32
397	320.87175348	76.13
454	321.35929767	132.64
270	227.33718305	42.66
291	295.85833998	-4.86
433	321.11570901	111.88
230	220.80087282	9.2
410	319.48813317	90.51
243	221.65577744	21.34
307	306.26258315	0.74
294	303.59040894	-9.59
440	321.21696277	118.78
288	236.23770805	51.76
430	321.04659747	108.95
209	217.54064485	-8.54
335	314.52985663	20.47
489	321.47898344	167.52
490	321.47978359	168.52
242	220.74295264	21.26

Mean Square Error = 6762.507858

Desired Output	Predict	Error
245	265.55542645	-20.56
489	321.45952086	167.54
380	320.43831573	59.56
260	276.66410603	-16.66
305	318.13995853	-13.14
234	255.07185624	-21.07
381	321.11599004	59.88
470	321.43292057	148.57
244	261.46425034	-17.46
294	316.93087802	-22.93
308	316.66488901	-8.66
314	285.82447061	28.18
483	321.46209825	161.54
245	258.80201260	-13.8
490	321.46505901	168.53
475	321.45571089	153.54
360	315.53054776	44.47
320	319.71543748	0.28
428	321.17703385	106.82
237	211.30114253	25.7
235	252.76474531	-17.76
178	172.47461363	5.53
433	321.23928137	111.76
401	321.31106232	79.69
248	271.94374382	-23.94
469	321.43255151	147.57
460	321.40305999	138.6
486	321.46191914	164.54
462	321.41779888	140.58
456	321.42657754	134.57
156	167.53506713	-11.54

Mean Square Error = 8981.570119

Desired Output	Predict	Error
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478	482.47438220	-4.47
294	307.76717070	-13.77
256	285.15341936	-29.15
208	233.30377529	-25.3
311	338.32095957	-27.32
490	484.97758731	5.02
231	250.39919238	-19.4
309	341.00845034	-32.01
165	171.99624202	-7.0
410	430.19307496	-20.19
471	474.70844944	-3.71
214	236.41567398	-22.42
313	346.89168882	-33.89
370	395.20897563	-25.21
238	244.73262057	-6.73
481	485.16273725	-4.16
490	485.01100164	4.99
333	368.60138375	-35.6
350	290.13076342	59.87
240	246.15088119	-6.15
253	283.50239248	-30.5
405	407.98792116	-2.99
329	360.24253671	-31.24
280	295.03424637	-15.03
156	171.21132974	-15.21
390	389.91834648	0.08
239	268.74245316	-29.74
211	240.11089403	-29.11
333	362.22618262	-29.23
467	467.24970223	-0.25
376	404.29724222	-28.3

Mean Square Error = 560.187232

Desired Output	Predict	Error
317	345.40953487	-28.41
422	419.15378339	2.85
326	328.51507313	-2.52
236	266.79265655	-30.79
471	456.15283771	14.85
349	371.88553124	-22.89
475	472.86898934	2.13
164	173.54539199	-9.55
322	353.55460511	-31.55
315	346.90543815	-31.91
424	412.27345921	11.73
210	250.77581564	-40.78
365	379.49985157	-14.5
466	444.41155900	21.59
448	457.39236922	-9.39
288	315.64700122	-27.65
172	174.62841963	-2.63
370	331.50863647	38.49
153	172.66034009	-19.66
390	400.12193539	-10.12
215	247.74129983	-32.74
325	357.43714430	-32.44
337	364.59677104	-27.6
490	480.01534008	9.98

451	463.05674095	-12.06
468	469.83159283	-1.83
468	475.16156921	-7.16
447	441.33004516	5.67
291	321.44821604	-30.45
155	173.07792044	-18.08
445	414.97018004	30.03

Mean Square Error = 493.684165

***** Mean Square Error Average : 5518.9357 *****
493.684165

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.54

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
445	442.03700296	2.96
469	478.79715849	-9.8
268	326.21426213	-58.21
311	345.60380695	-34.6
340	344.63441963	-4.63
211	321.71385052	-110.71
245	321.81853703	-76.82
365	387.35121327	-22.35
212	321.71147137	-109.71
221	321.59617842	-100.6
455	471.82726273	-16.83
210	321.69754666	-111.7
302	335.44371000	-33.44
333	360.81200236	-27.81
237	321.51410764	-84.51
471	478.69203934	-7.69
405	383.50248587	21.5
236	322.05414765	-86.05
444	468.06976748	-24.07
412	394.43526608	17.56
390	416.15132870	-26.15
243	321.87778364	-78.88
245	322.24041887	-77.24
466	473.81399152	-7.81
413	407.30126718	5.7
153	321.51411420	-168.51
239	321.99871025	-83.0
213	321.70845775	-108.71
490	485.08800666	4.91
431	455.45279204	-24.45
490	485.13638391	4.86

Mean Square Error = 4414.41279

Desired Output	Predict	Error
490	483.89662191	6.1

356	381.30096304	-25.3
490	484.05659302	5.94
345	373.63892370	-28.64
472	484.38759112	-12.39
231	250.91761430	-19.92
156	171.13901365	-15.14
457	465.64035121	-8.64
357	383.66489257	-26.66
393	416.44720993	-23.45
246	267.21794051	-21.22
319	351.23500951	-32.24
238	247.77268384	-9.77
259	293.53087822	-34.53
385	408.99506204	-24.0
465	470.26216064	-5.26
315	338.72714583	-23.73
303	323.60943616	-20.61
256	291.79123880	-35.79
377	395.60202532	-18.6
215	236.59800595	-21.6
284	300.71383833	-16.71
422	437.07709574	-15.08
265	294.10141371	-29.1
230	251.33550857	-21.34
441	452.97011018	-11.97
488	483.22608784	4.77
314	273.51578999	40.48
331	360.29557699	-29.3
274	296.31198253	-22.31
333	352.71972726	-19.72

Mean Square Error = 498.992268

Desired Output	Predict	Error
153	169.02889033	-16.03
337	332.66267428	4.34
211	215.42720621	-4.43
251	250.14030715	0.86
153	169.10794078	-16.11
153	169.27282522	-16.27
234	223.32542742	10.67
232	223.89765183	8.1
468	479.91576034	-11.92
280	261.52576124	18.47
303	293.54029885	9.46
390	360.46226435	29.54
250	249.63608818	0.36
315	301.21719371	13.78
370	361.19821409	8.8
154	169.52143216	-15.52
230	218.54912574	11.45
362	336.67889175	25.32
156	169.54160388	-13.54
416	414.85669540	1.14
470	480.88461577	-10.88
296	289.13881669	6.86
294	278.87054125	15.13
380	324.48838739	55.51
209	214.08966243	-5.09
490	485.16912888	4.83

164	169.76212234	-5.76
450	428.09231829	21.91
471	473.68335608	-2.68
233	221.83106163	11.17
308	284.32108766	23.68

Mean Square Error = 278.749268

Desired Output	Predict	Error
155	161.63353090	-6.63
308	321.43855761	-13.44
448	321.46645855	126.53
234	321.25761869	-87.26
156	162.71259860	-6.71
238	321.30464238	-83.3
489	321.47015450	167.53
290	321.42277907	-31.42
328	321.33191304	6.67
490	321.47025900	168.53
153	158.80505855	-5.81
468	321.46807422	146.53
405	321.45710374	83.54
317	321.44299421	-4.44
420	321.46017712	98.54
156	162.12579642	-6.13
468	321.46728671	146.53
296	321.42926657	-25.43
215	321.07547962	-106.08
326	321.40849940	4.59
294	321.42632310	-27.43
335	321.44898620	13.55
235	321.15353033	-86.15
249	321.38616984	-72.39
433	321.45518701	111.54
483	321.46998172	161.53
420	321.45117489	98.55
486	321.46989255	164.53
447	321.46284014	125.54
209	321.13093914	-112.13
300	321.31361715	-21.31

Mean Square Error = 8957.321087

Desired Output	Predict	Error
484	321.59124989	162.41
433	321.58853224	111.41
244	321.54594242	-77.55
178	160.85400742	17.15
376	321.58634226	54.41
424	321.58761346	102.41
303	321.58885358	-18.59
325	321.58757458	3.41
246	321.56344771	-75.56
340	321.56806664	18.43
382	321.58653495	60.41
350	321.57316673	28.43
360	321.58118230	38.42
307	321.58825833	-14.59
290	321.58638339	-31.59

320	321.58949762	-1.59
440	321.58883155	118.41
310	321.58669366	-11.59
485	321.59367196	163.41
417	321.58673762	95.41
317	321.58841489	-4.59
288	321.58614276	-33.59
475	321.60101169	153.4
300	321.58451793	-21.58
333	321.58737098	11.41
306	321.58558173	-15.59
322	321.58754996	0.41
236	321.52210590	-85.52
214	321.47477546	-107.47
262	321.57924384	-59.58
240	321.52272196	-81.52

Mean Square Error = 5698.024297

Desired Output	Predict	Error
470	153.00058735	317.0
460	153.00080297	307.0
360	153.00059178	207.0
454	153.00083986	301.0
248	153.00106985	95.0
235	153.00110214	82.0
247	153.00107764	94.0
427	153.00048647	274.0
462	153.00053339	309.0
328	153.00104129	175.0
172	153.00122481	19.0
322	153.00105311	169.0
427	153.00050860	274.0
396	153.00053567	243.0
259	153.00123224	106.0
297	153.00121332	144.0
216	153.00115858	63.0
390	153.00111590	237.0
475	153.00051787	322.0
294	153.00098179	141.0
467	153.00054902	314.0
188	153.00122536	35.0
260	153.00115640	107.0
329	153.00071954	176.0
315	153.00104847	162.0
404	153.00052490	251.0
471	153.00063849	318.0
368	153.00057934	215.0
207	153.00123177	54.0
428	153.00095989	275.0
210	153.00116874	57.0

Mean Square Error = 44945.387097

Desired Output	Predict	Error
464	489.69081473	-25.69
436	489.69081844	-53.69
459	489.69081667	-30.69
412	489.69064858	-77.69

270	489.69086024	-219.69
209	489.69088921	-280.69
218	489.69090329	-271.69
470	489.69081457	-19.69
276	489.69083961	-213.69
231	489.69087798	-258.69
209	489.69088945	-280.69
401	489.69082132	-88.69
209	489.69088945	-280.69
456	489.69081573	-33.69
252	489.69084093	-237.69
470	489.69081500	-19.69
465	489.68956976	-24.69
323	489.69082716	-166.69
488	489.69079827	-1.69
305	489.69082929	-184.69
294	489.69083012	-195.69
398	489.69081240	-91.69
460	489.69081517	-29.69
247	489.69085334	-242.69
328	489.69082584	-161.69
292	489.69083540	-197.69
192	489.69130229	-297.69
314	489.69077112	-175.69
370	489.69081382	-119.69
330	489.69081821	-159.69
300	489.69082929	-189.69

Mean Square Error = 31526.675455

Desired Output	Predict	Error
478	484.58707684	-6.59
214	240.74877761	-26.75
467	459.94160227	7.06
450	453.51768068	-3.52
241	259.01092266	-18.01
381	395.83103980	-14.83
214	241.51425127	-27.51
351	368.75611175	-17.76
327	335.93351105	-8.93
361	378.25638444	-17.26
215	241.22413103	-26.22
341	365.56394868	-24.56
410	385.13162278	24.87
215	240.89211997	-25.89
322	350.11979848	-28.12
288	309.66609410	-21.67
250	269.20914302	-19.21
232	260.02546385	-28.03
328	357.51780702	-29.52
390	398.23265631	-8.23
230	259.71808726	-29.72
288	267.32139387	20.68
344	364.56308469	-20.56
486	482.72573765	3.27
168	169.79973446	-1.8
451	469.09029411	-18.09
290	294.04349585	-4.04
438	415.89098551	22.11
255	271.25715760	-16.26

315		343.21954123		-28.22
469		463.19263937		5.81

Mean Square Error = 400.76089

Desired Output		Predict		Error
481		321.13233116		159.87
349		320.24319937		28.76
325		319.53322256		5.47
280		300.47113512		-20.47
397		320.72672749		76.27
319		319.73525858		-0.74
435		320.61908724		114.38
478		321.12497933		156.88
208		291.58167515		-83.58
245		308.73135308		-63.73
270		287.06088805		-17.06
247		311.76998867		-64.77
471		321.04658655		149.95
240		309.85262215		-69.85
305		319.09422922		-14.09
410		320.76820213		89.23
305		319.02952260		-14.03
153		153.00133063		-0.0
374		320.46869023		53.53
457		320.87250064		136.13
309		319.33607153		-10.34
447		320.95561449		126.04
465		320.95191842		144.05
489		321.15927882		167.84
153		153.00135507		-0.0
165		153.00790297		11.99
246		217.20357334		28.8
293		318.58219678		-25.58
437		320.90232148		116.1
153		153.00139913		-0.0
490		321.17138457		168.83

Mean Square Error = 8113.606671

Desired Output		Predict		Error
307		294.75588603		12.24
208		209.51351473		-1.51
430		423.02011512		6.98
481		484.35379358		-3.35
327		312.56915680		14.43
444		444.74341928		-0.74
298		295.79208363		2.21
209		212.55824741		-3.56
225		209.06953156		15.93
288		271.04901797		16.95
291		284.23367814		6.77
160		169.28074214		-9.28
308		299.57285478		8.43
286		269.18801166		16.81
253		258.35234980		-5.35
252		259.22283683		-7.22
234		223.36345641		10.64
232		220.79369112		11.21

217		206.92086338		10.08
242		221.56594964		20.43
311		304.74144827		6.26
353		344.99737210		8.0
253		258.48414942		-5.48
153		169.18139004		-16.18
271		263.62304687		7.38
240		221.29273476		18.71
313		307.35657622		5.64
470		468.19185364		1.81
224		173.43365988		50.57
470		484.26567990		-14.27
208		209.50353375		-1.5

Mean Square Error = 190.370284

***** Mean Square Error Average : 10502.43 *****
190.370284

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.55

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
311		330.12685102		-19.13
327		332.44872959		-5.45
490		483.21298762		6.79
481		479.36168751		1.64
270		321.68070314		-51.68
288		324.68955257		-36.69
231		321.55381994		-90.55
377		352.78842578		24.21
211		321.53891138		-110.54
294		326.49739278		-32.5
356		344.64727319		11.35
215		321.52541521		-106.53
276		322.89613919		-46.9
305		326.43775993		-21.44
308		327.90868722		-19.91
405		352.02804066		52.97
246		321.73869092		-75.74
447		464.33187219		-17.33
250		322.59581305		-72.6
319		332.56052436		-13.56
234		321.55720757		-87.56
192		321.49906903		-129.5
210		321.53496700		-111.53
322		333.51191598		-11.51
317		330.66995999		-13.67
341		339.71808550		1.28
215		321.52163222		-106.52
320		332.07254232		-12.07
410		354.31693814		55.68
339		337.04418176		1.96
215		321.52352296		-106.52

Mean Square Error = 3822.336371

Desired Output	Predict	Error
241	240.72295038	0.28
308	317.45454307	-9.45
296	316.38825573	-20.39
213	233.51796241	-20.52
327	317.70899494	9.29
164	167.27350167	-3.27
360	313.28165574	46.72
224	207.60371606	16.4
370	318.95379022	51.05
215	230.35808122	-15.36
340	297.10824658	42.89
284	307.41367499	-23.41
365	320.83798833	44.16
328	319.85340473	8.15
465	321.45232756	143.55
472	321.48475799	150.52
427	321.31567913	105.68
376	321.00213851	55.0
247	271.76315485	-24.76
286	308.17304634	-22.17
214	232.78247484	-18.78
303	315.19989806	-12.2
351	320.49884161	30.5
490	321.48511938	168.51
396	321.18244953	74.82
251	296.52333389	-45.52
308	315.53480867	-7.53
390	321.13685667	68.86
253	297.92392765	-44.92
153	164.67372505	-11.67
156	166.05313986	-10.05

Mean Square Error = 3672.02131

Desired Output	Predict	Error
155	321.37107669	-166.37
250	321.44877413	-71.45
218	321.44575678	-103.45
380	321.46236142	58.54
178	321.37686291	-143.38
488	321.46903586	166.53
413	321.47575223	91.52
245	321.45830779	-76.46
249	321.46108246	-72.46
262	321.46522926	-59.47
390	321.46112398	68.54
350	321.45833213	28.54
225	321.44578369	-96.45
209	321.44443305	-112.44
154	321.37059204	-167.37
325	321.47172044	3.53
252	321.46279851	-69.46
260	321.45152962	-61.45
360	321.47498111	38.53
217	321.44576258	-104.45

455	321.47420952	133.53
255	321.45012570	-66.45
344	321.47427746	22.53
208	321.44549362	-113.45
305	321.46872521	-16.47
168	321.37490056	-153.37
484	321.47124180	162.53
211	321.44444453	-110.44
405	321.47525203	83.52
333	321.46494530	11.54
488	321.47063709	166.53

Mean Square Error = 10566.519029

Desired Output	Predict	Error
330	305.22951061	24.77
430	320.59513516	109.4
153	159.76934787	-6.77
467	321.20557284	145.79
385	319.48434911	65.52
238	230.82799317	7.17
300	302.28957905	-2.29
331	310.68850615	20.31
481	321.35090987	159.65
213	208.65656268	4.34
209	208.59186619	0.41
274	271.19833911	2.8
470	321.20806081	148.79
416	320.33950914	95.66
470	321.22530988	148.77
490	321.36631430	168.63
441	320.88150775	120.12
437	320.79236628	116.21
319	309.30307296	9.7
256	259.23856109	-3.24
153	160.61078586	-7.61
489	321.35916731	167.64
444	320.75308390	123.25
253	255.42522072	-2.43
471	321.23247440	149.77
300	294.20205708	5.8
333	308.54120187	24.46
237	196.26543104	40.73
444	320.90911765	123.09
221	206.95123230	14.05
314	233.61696966	80.38

Mean Square Error = 8514.337829

Desired Output	Predict	Error
230	321.55339283	-91.55
288	321.56346450	-33.56
310	321.55620222	-11.56
490	321.52680398	168.47
440	321.53348052	118.47
307	321.55680072	-14.56
252	321.57138824	-69.57
153	158.24741057	-5.25
433	321.54560551	111.45

404	321.53789279	82.46
303	321.58135727	-18.58
314	321.57875454	-7.58
306	321.55533372	-15.56
153	158.29138073	-5.29
431	321.53462075	109.47
457	321.53225920	135.47
245	321.54662380	-76.55
490	321.52678571	168.47
212	321.52447691	-109.52
333	321.54872415	11.45
238	321.53070699	-83.53
302	321.56420785	-19.56
465	321.53146951	143.47
153	158.24969642	-5.25
325	321.55666189	3.44
209	321.51527085	-112.52
243	321.56369888	-78.56
292	321.56075541	-29.56
232	321.51236404	-89.51
470	321.53114619	148.47
300	321.56968833	-21.57

Mean Square Error = 7482.096458

Desired Output	Predict	Error
448	463.06676799	-15.07
456	474.92070477	-18.92
398	351.34482391	46.66
329	317.24845054	11.75
486	484.71537770	1.28
424	406.81792829	17.18
317	309.89991548	7.1
188	167.10399955	20.9
468	479.44294513	-11.44
247	229.39008892	17.61
246	231.85457112	14.15
207	171.19254058	35.81
368	360.14149024	7.86
259	258.40381782	0.6
172	166.57641563	5.42
485	484.76429405	0.24
291	277.81154820	13.19
291	281.13662605	9.86
315	304.09746481	10.9
465	478.28889345	-13.29
293	284.35009261	8.65
323	308.58102330	14.42
242	221.30617494	20.69
259	216.89926044	42.1
233	220.42766275	12.57
468	470.79414571	-2.79
271	261.11282925	9.89
230	215.76879361	14.23
478	482.38353437	-4.38
296	278.20368098	17.8
420	396.13856918	23.86

Mean Square Error = 326.47519

Desired Output	Predict	Error
209	153.00025072	56.0
210	153.00025054	57.0
381	153.00035870	228.0
433	153.00038375	280.0
390	153.00036264	237.0
490	153.00037812	337.0
328	153.00029733	175.0
240	153.00025389	87.0
236	153.00026307	83.0
451	153.00040197	298.0
454	153.00033419	301.0
160	153.00022788	7.0
328	153.00026387	175.0
410	153.00037955	257.0
165	153.00022794	12.0
232	153.00026374	79.0
230	153.00026536	77.0
208	153.00025465	55.0
462	153.00038615	309.0
427	153.00038605	274.0
280	153.00022460	127.0
422	153.00038385	269.0
470	153.00039636	317.0
288	153.00026114	135.0
315	153.00031966	162.0
397	153.00035529	244.0
412	153.00026127	259.0
478	153.00032974	325.0
315	153.00028799	162.0
246	153.00022384	93.0
435	153.00026525	282.0

Mean Square Error = 44958.741935

Desired Output	Predict	Error
245	165.90559465	79.09
420	165.89866271	254.1
382	165.89738886	216.1
288	165.90109954	122.1
466	165.89678871	300.1
445	165.89764467	279.1
290	165.90918316	124.09
490	165.89626799	324.1
234	165.90646133	68.09
322	165.89922962	156.1
469	165.89650306	303.1
240	165.90600667	74.09
290	165.90136398	124.1
248	165.90468467	82.1
467	165.89653642	301.1
393	165.89742816	227.1
209	165.91075707	43.09
156	166.03232390	-10.03
265	165.90224817	99.1
340	165.90235244	174.1
460	165.89699257	294.1
214	165.91068751	48.09
464	165.89638545	298.1

438		165.89788714		272.1
313		165.89974330		147.1
459		165.89659712		293.1
345		165.89854763		179.1
483		165.89652906		317.1
294		165.90073724		128.1
328		165.90048108		162.1
232		165.90707523		66.09

Mean Square Error = 41696.530568

Desired Output		Predict		Error
280		265.62435095		14.38
309		306.95406209		2.05
412		364.50850356		47.49
390		327.11625062		62.88
290		277.65535256		12.34
460		475.45302342		-15.45
468		479.78450864		-11.78
307		300.59798046		6.4
214		199.22885409		14.77
209		200.74833402		8.25
417		400.69418657		16.31
471		470.07804464		0.92
297		270.47836234		26.52
315		311.66347161		3.34
153		164.15369844		-11.15
239		242.67232834		-3.67
370		369.78743965		0.21
311		307.17190278		3.83
470		471.82630905		-1.83
486		481.50460978		4.5
362		322.46817876		39.53
156		164.22007789		-8.22
357		361.64280061		-4.64
490		482.57037482		7.43
401		394.81367821		6.19
337		341.79707896		-4.8
268		259.71166499		8.29
471		471.11998908		-0.12
450		425.89942392		24.1
231		218.30363282		12.7
235		214.23771497		20.76

Mean Square Error = 369.181648

Desired Output		Predict		Error
489		489.99999874		-1.0
374		489.99999874		-116.0
471		489.99999874		-19.0
234		489.99999871		-256.0
469		489.99999874		-21.0
208		489.99999870		-282.0
294		489.99999873		-196.0
235		489.99999871		-255.0
447		489.99999874		-43.0
326		489.99999872		-164.0
353		489.99999873		-137.0
428		489.99999873		-62.0

475	489.99999874	-15.0
470	489.99999874	-20.0
335	489.99999873	-155.0
361	489.99999874	-129.0
270	489.99999869	-220.0
457	489.99999874	-33.0
216	489.99999870	-274.0
303	489.99999873	-187.0
298	489.99999873	-192.0
322	489.99999873	-168.0
349	489.99999873	-141.0
156	489.99999865	-334.0
450	489.99999874	-40.0
436	489.99999874	-54.0
153	489.99999861	-337.0
247	489.99999871	-243.0
305	489.99999873	-185.0
236	489.99999871	-254.0
475	489.99999874	-15.0

Mean Square Error = 31857.032258

***** Mean Square Error Average : 15326.5273 *****

326.47519

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.56

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
380	362.11138751	17.89
322	406.37025132	-84.37
276	360.23682137	-84.24
214	325.49367013	-111.49
329	414.83078762	-85.83
216	324.79921323	-108.8
217	324.69731185	-107.7
412	399.74265654	12.26
390	375.08884718	14.91
470	465.36661360	4.63
247	337.64509391	-90.65
468	468.08899943	-0.09
207	190.59709269	16.4
319	403.75447976	-84.75
460	470.88826093	-10.89
450	463.91745176	-13.92
490	474.97888525	15.02
153	162.83011565	-9.83
470	468.25787665	1.74
172	165.25546508	6.74
470	468.27194228	1.73
288	368.16574182	-80.17
250	327.75599667	-77.76
317	400.97313490	-83.97
303	383.88514563	-80.89

259	353.32767515	-94.33
213	325.64623976	-112.65
345	420.51224863	-75.51
310	388.03470311	-78.03
413	444.47547994	-31.48
459	466.17848879	-7.18

Mean Square Error = 4355.047158

Desired Output	Predict	Error
154	489.99991016	-336.0
465	489.99998371	-25.0
420	489.99998392	-70.0
447	489.99998395	-43.0
410	489.99998387	-80.0
290	489.99998113	-200.0
231	489.99997291	-259.0
237	489.99993136	-253.0
209	489.99996614	-281.0
284	489.99998114	-206.0
308	489.99998224	-182.0
362	489.99997893	-128.0
294	489.99998072	-196.0
465	489.99998259	-25.0
303	489.99997068	-187.0
296	489.99998168	-194.0
468	489.99998294	-22.0
349	489.99998340	-141.0
490	489.99998389	0.0
265	489.99998013	-225.0
252	489.99997897	-238.0
242	489.99997455	-248.0
483	489.99998378	-7.0
245	489.99997580	-245.0
255	489.99997059	-235.0
481	489.99998374	-9.0
209	489.99996620	-281.0
165	489.99991461	-325.0
328	489.99998309	-162.0
291	489.99998135	-199.0
153	489.99990565	-337.0

Mean Square Error = 40284.806452

Desired Output	Predict	Error
153	489.99992579	-337.0
360	489.99992576	-130.0
475	489.99992576	-15.0
314	489.99992577	-176.0
340	489.99992576	-150.0
234	489.99992577	-256.0
215	489.99992577	-275.0
247	489.99992577	-243.0
333	489.99992576	-157.0
325	489.99992577	-165.0
327	489.99992577	-163.0
427	489.99992576	-63.0
467	489.99992576	-23.0
462	489.99992576	-28.0

424	489.99992576	-66.0
308	489.99992577	-182.0
156	489.99992579	-334.0
156	489.99992579	-334.0
156	489.99992579	-334.0
437	489.99992576	-53.0
235	489.99992577	-255.0
153	489.99992579	-337.0
298	489.99992577	-192.0
250	489.99992577	-240.0
311	489.99992577	-179.0
313	489.99992577	-177.0
488	489.99992576	-2.0
436	489.99992576	-54.0
401	489.99992576	-89.0
337	489.99992577	-153.0
209	489.99992577	-281.0

Mean Square Error = 41700.032258

Desired Output	Predict	Error
256	321.50987619	-65.51
246	321.51379570	-75.51
435	321.50799681	113.49
405	321.50658542	83.49
468	321.50308560	146.5
212	321.52625145	-109.53
288	321.51744694	-33.52
469	321.50355871	147.5
209	321.52674417	-112.53
292	321.50722367	-29.51
356	321.50414112	34.5
233	321.51671015	-88.52
215	321.52608233	-106.53
448	321.50317486	126.5
430	321.50344079	108.5
210	321.52663743	-111.53
486	321.50324436	164.5
457	321.50327851	135.5
230	321.51788991	-91.52
370	321.51069598	48.49
236	321.51848320	-85.52
396	321.50366944	74.5
305	321.50669202	-16.51
489	321.50319239	167.5
455	321.50329008	133.5
475	321.50306906	153.5
441	321.50335648	119.5
328	321.50743169	6.49
410	321.50356674	88.5
471	321.50333039	149.5
259	321.56869266	-62.57

Mean Square Error = 11208.050674

Desired Output	Predict	Error
428	406.23075680	21.77
192	321.50028844	-129.5
433	456.27133087	-23.27

153	321.50010954	-168.5
335	367.03510617	-32.04
274	327.40257316	-53.4
445	437.40935676	7.59
390	368.59024369	21.41
296	335.29027992	-39.29
427	446.75794406	-19.76
235	321.75505445	-86.76
490	485.60504808	4.39
467	477.93851226	-10.94
315	352.51127242	-37.51
214	321.73106899	-107.73
221	321.62435405	-100.62
288	330.59196235	-42.59
315	346.20923587	-31.21
385	414.71927444	-29.72
339	371.09815099	-32.1
319	353.27579069	-34.28
249	324.75623527	-75.76
320	351.02227936	-31.02
307	344.87364567	-37.87
240	321.81755745	-81.82
156	321.50013391	-165.5
308	344.85608096	-36.86
393	423.49450835	-30.49
328	322.79135676	5.21
236	322.24345032	-86.24
328	356.62111197	-28.62

Mean Square Error = 4579.967035

Desired Output	Predict	Error
469	489.39813917	-20.4
297	489.39813624	-192.4
444	489.39814035	-45.4
286	489.39813751	-203.4
470	489.39813894	-19.4
208	489.39813680	-281.4
315	489.39813812	-174.4
481	489.39813908	-8.4
153	489.39825230	-336.4
234	489.39813693	-255.4
438	489.39813754	-51.4
253	489.39813715	-236.4
240	489.39813691	-249.4
153	489.39824792	-336.4
225	489.39813683	-264.4
327	489.39813855	-162.4
471	489.39813853	-18.4
305	489.39813763	-184.4
490	489.39813806	0.6
239	489.39813693	-250.4
153	489.39823358	-336.4
271	489.39813733	-218.4
422	489.39814076	-67.4
213	489.39813677	-276.4
450	489.39813772	-39.4
214	489.39813678	-275.4
485	489.39813764	-4.4
215	489.39813681	-274.4

331		489.39813707		-158.4
246		489.39813702		-243.4
457		489.39813785		-32.4

Mean Square Error = 41174.972903

Desired Output		Predict		Error
490		153.00000038		337.0
280		153.00000039		127.0
160		153.00000041		7.0
243		153.00000038		90.0
460		153.00000038		307.0
365		153.00000038		212.0
447		153.00000038		294.0
420		153.00000038		267.0
405		153.00000038		252.0
470		153.00000038		317.0
315		153.00000038		162.0
478		153.00000038		325.0
188		153.00000041		35.0
302		153.00000038		149.0
333		153.00000038		180.0
412		153.00000038		259.0
353		153.00000038		200.0
370		153.00000038		217.0
307		153.00000038		154.0
390		153.00000038		237.0
306		153.00000038		153.0
350		153.00000038		197.0
232		153.00000038		79.0
390		153.00000038		237.0
230		153.00000038		77.0
377		153.00000038		224.0
314		153.00000038		161.0
340		153.00000038		187.0
246		153.00000040		93.0
488		153.00000038		335.0
247		153.00000038		94.0

Mean Square Error = 44898.096774

Desired Output		Predict		Error
294		321.50099357		-27.5
368		321.50054121		46.5
245		321.50237079		-76.5
164		321.55201919		-157.55
168		321.54991351		-153.55
252		321.50156835		-69.5
381		321.50054637		59.5
209		321.50455121		-112.5
293		321.50104418		-28.5
404		321.50049123		82.5
300		321.50270022		-21.5
433		321.50064196		111.5
454		321.50052571		132.5
211		321.50448036		-110.5
244		321.50246247		-77.5
484		321.50037895		162.5
294		321.50100856		-27.5

280	321.50117252	-41.5
444	321.50042815	122.5
357	321.50060935	35.5
268	321.50130151	-53.5
209	321.50455121	-112.5
490	321.50037499	168.5
218	321.50468842	-103.5
490	321.50037694	168.5
241	321.50272047	-80.5
294	321.50102671	-27.5
262	321.50135948	-59.5
470	321.50038738	148.5
240	321.50261149	-81.5
451	321.50041096	129.5

Mean Square Error = 10286.801774

Desired Output	Predict	Error
360	321.40508135	38.59
472	321.45169956	150.55
309	321.43136638	-12.43
208	321.23009896	-113.23
178	165.39142096	12.61
333	321.42885709	11.57
303	321.42952857	-18.43
374	321.44269118	52.56
361	321.44139743	39.56
466	321.44930317	144.55
489	321.45347055	167.55
323	321.43599881	1.56
486	321.45326231	164.55
311	321.43208238	-10.43
478	321.45264272	156.55
322	321.42410725	0.58
417	321.44608636	95.55
270	320.39471409	-50.39
431	321.44878324	109.55
155	162.12856146	-7.13
232	321.24475052	-89.24
153	160.10289775	-7.1
215	321.19283699	-106.19
234	321.34188341	-87.34
326	321.41063892	4.59
290	321.30417409	-31.3
248	321.39398810	-73.39
300	321.42819912	-21.43
245	321.30601517	-76.31
465	321.45094586	143.55
398	321.43212236	76.57

Mean Square Error = 7501.052719

Desired Output	Predict	Error
330	332.32595989	-2.33
288	326.42072316	-38.42
416	374.36863496	41.63
208	321.73049556	-113.73
290	326.64697894	-36.65
351	341.10386435	9.9

251	323.84706114	-72.85
322	333.95306528	-11.95
231	321.80092918	-90.8
376	351.27586405	24.72
344	339.39128910	4.61
382	354.28055216	27.72
230	321.78189307	-91.78
291	326.96616944	-35.97
224	321.50198254	-97.5
210	321.72758801	-111.73
456	450.87105002	5.13
471	450.85680953	20.14
490	479.77235718	10.23
341	339.22126535	1.78
270	322.16430296	-52.16
397	363.33294309	33.67
440	405.08687288	34.91
471	447.97462109	23.03
300	329.74566195	-29.75
305	329.93865162	-24.94
238	321.75000388	-83.75
260	322.14980586	-62.15
253	323.80297734	-70.8
317	331.84943096	-14.85
464	460.66803997	3.33

Mean Square Error = 2844.001855

***** Mean Square Error Average : 20883.283 *****
2844.001855

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.5700000000000001

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
225	320.29313322	-95.29
456	321.46408922	134.54
470	321.46321675	148.54
405	321.45298327	83.55
232	321.00746228	-89.01
230	320.98072664	-90.98
231	320.99557290	-90.0
471	321.46249089	149.54
153	158.52900911	-5.53
401	321.45364874	79.55
398	321.42460373	76.58
490	321.46650263	168.53
214	320.51249855	-106.51
333	321.43955093	11.56
311	321.42729589	-10.43
319	321.43421939	-2.43
445	321.45185044	123.55
447	321.46114700	125.54
412	321.43739469	90.56

362	321.40060939	40.6
447	321.44972226	125.55
253	321.35694205	-68.36
224	202.98534222	21.01
259	321.36551602	-62.37
470	321.46322146	148.54
244	321.15294070	-77.15
428	321.44447987	106.56
288	321.40105045	-33.4
211	320.53905633	-109.54
471	321.46316776	149.54
470	321.46211661	148.54

Mean Square Error = 10247.113723

Desired Output	Predict	Error
483	489.99996385	-7.0
215	489.99996274	-275.0
450	489.99996385	-40.0
368	489.99996378	-122.0
374	489.99996375	-116.0
307	489.99996357	-183.0
308	489.99996358	-182.0
465	489.99996381	-25.0
444	489.99996385	-46.0
468	489.99996388	-22.0
377	489.99996377	-113.0
471	489.99996385	-19.0
490	489.99996389	0.0
208	489.99996276	-282.0
156	489.99996003	-334.0
441	489.99996384	-49.0
153	489.99995980	-337.0
213	489.99996275	-277.0
214	489.99996274	-276.0
290	489.99996260	-200.0
246	489.99996318	-244.0
240	489.99996282	-250.0
478	489.99996388	-12.0
268	489.99996343	-222.0
286	489.99996350	-204.0
294	489.99996347	-196.0
315	489.99996359	-175.0
462	489.99996386	-28.0
376	489.99996379	-114.0
233	489.99996304	-257.0
212	489.99996276	-278.0

Mean Square Error = 36379.709677

Desired Output	Predict	Error
315	369.29589119	-54.3
291	357.08591416	-66.09
215	323.36016193	-108.36
390	409.09998304	-19.1
390	388.51464221	1.49
430	393.62973434	36.37
339	352.99831220	-14.0
270	319.95296189	-49.95

397	376.87123787	20.13
472	442.21448534	29.79
431	397.64636246	33.35
247	335.73473210	-88.73
214	324.19073796	-110.19
455	418.66624821	36.33
294	360.64767472	-66.65
296	362.94738116	-66.95
188	161.03033417	26.97
468	429.35197325	38.65
420	375.76644923	44.23
234	323.68266723	-89.68
314	378.89118628	-64.89
467	429.05853003	37.94
490	440.70896443	49.29
280	338.49186917	-58.49
153	160.83249749	-7.83
317	364.23662964	-47.24
250	348.47072279	-98.47
297	358.28186998	-61.28
311	352.66439642	-41.66
209	324.56882736	-115.57
335	353.08409359	-18.08

Mean Square Error = 3580.235965

Desired Output	Predict	Error
164	175.92883554	-11.93
154	175.40002235	-21.4
475	472.36943595	2.63
218	246.09775125	-28.1
253	292.82639859	-39.83
465	472.53507928	-7.54
460	437.91294480	22.09
156	175.37441396	-19.37
440	438.46354484	1.54
242	263.71825671	-21.72
213	248.12709521	-35.13
298	333.06993686	-35.07
341	368.30350425	-27.3
325	358.18453903	-33.18
320	350.45736208	-30.46
303	334.69193964	-31.69
478	482.47063436	-4.47
274	301.45593431	-27.46
437	432.08765521	4.91
457	433.72355938	23.28
331	361.59771570	-30.6
350	299.27203982	50.73
424	413.62080554	10.38
215	247.28814865	-32.29
231	263.63099294	-32.63
288	314.57034938	-26.57
486	478.32408411	7.68
238	256.97930582	-18.98
490	479.60847423	10.39
349	373.12697653	-24.13
360	379.79283043	-19.79

Mean Square Error = 641.671526

Desired Output	Predict	Error
427	332.00554593	94.99
265	323.19112311	-58.19
489	389.73790144	99.26
155	164.10445511	-9.1
327	324.84880608	2.15
313	326.17530838	-13.18
236	321.70753559	-85.71
153	163.90015632	-10.9
329	324.88085655	4.12
470	410.49029985	59.51
344	325.13560619	18.86
481	380.17513686	100.82
309	326.15310802	-17.15
328	331.87425043	-3.87
322	329.26033747	-7.26
490	396.26535229	93.73
469	364.06196573	104.94
234	321.83211371	-87.83
460	363.20774012	96.79
322	328.32996360	-6.33
300	324.19326937	-24.19
475	410.33837813	64.66
255	322.39835358	-67.4
207	190.23930966	16.76
156	164.21016446	-8.21
326	331.89662968	-5.9
232	321.70276336	-89.7
208	321.63617939	-113.64
240	321.72183479	-81.72
153	163.96942902	-10.97
361	327.27676048	33.72

Mean Square Error = 3868.912755

Desired Output	Predict	Error
325	319.50395612	5.5
433	321.20408984	111.8
247	280.60970356	-33.61
153	187.11112769	-34.11
236	256.72407437	-20.72
153	187.25098786	-34.25
251	304.43484298	-53.43
412	321.16787072	90.83
327	318.22048275	8.78
245	258.52905055	-13.53
308	316.53226036	-8.53
208	223.17519006	-15.18
293	316.23357516	-23.23
370	318.14975142	51.85
209	223.36277944	-14.36
209	223.09828429	-14.1
240	264.70915337	-24.71
356	320.36887755	35.63
328	287.15172631	40.85
351	320.22603794	30.77
288	314.55257656	-26.55
345	320.11039284	24.89

382	320.81162182	61.19
276	309.13571975	-33.14
248	280.90614211	-32.91
396	320.94357193	75.06
215	219.57303966	-4.57
308	317.69677402	-9.7
436	321.23711678	114.76
235	240.82456315	-5.82
245	265.32257772	-20.32

Mean Square Error = 2027.013942

Desired Output	Predict	Error
256	153.00098852	103.0
165	153.00079573	12.0
209	153.00090800	56.0
454	153.00099135	301.0
230	153.00092511	77.0
385	153.00098301	232.0
247	153.00096568	94.0
416	153.00097372	263.0
249	153.00098377	96.0
252	153.00099030	99.0
323	153.00099391	170.0
294	153.00099376	141.0
260	153.00094208	107.0
465	153.00097121	312.0
471	153.00097457	318.0
209	153.00090743	56.0
270	153.00094502	117.0
410	153.00097472	257.0
438	153.00099762	285.0
262	153.00098740	109.0
328	153.00101261	175.0
370	153.00098598	217.0
156	153.00079549	3.0
310	153.00099865	157.0
353	153.00099056	200.0
420	153.00100566	267.0
451	153.00096842	298.0
340	153.00101650	187.0
470	153.00096647	317.0
381	153.00098364	228.0
300	153.00100429	147.0

Mean Square Error = 38950.290323

Desired Output	Predict	Error
467	320.40411044	146.6
302	301.62147973	0.38
232	201.11393934	30.89
340	262.17843399	77.82
172	179.57460511	-7.57
413	318.04545870	94.95
243	222.46630869	20.53
291	301.52290451	-10.52
210	201.08212423	8.92
417	318.39317373	98.61
337	314.53486371	22.47

314	242.61302575	71.39
241	214.99856129	26.0
422	319.25649057	102.74
433	317.93382112	115.07
450	319.18386815	130.82
410	318.86557469	91.13
234	214.25142223	19.75
221	192.47336993	28.53
284	294.10463210	-10.1
153	179.57348782	-26.57
294	305.37568832	-11.38
315	310.76832703	4.23
245	212.45181182	32.55
307	307.34363250	-0.34
315	311.14220204	3.86
357	316.24047186	40.76
490	320.91476961	169.09
489	320.88883396	168.11
290	300.03592287	-10.04
427	319.44194919	107.56

Mean Square Error = 5703.888619

Desired Output	Predict	Error
360	321.50312141	38.5
300	321.50434339	-21.5
486	321.50087660	164.5
210	321.50693083	-111.51
237	321.53564753	-84.54
252	321.50274291	-69.5
464	321.50091869	142.5
192	321.55778880	-129.56
444	321.50099642	122.5
404	321.50112191	82.5
319	321.50157093	-2.5
459	321.50098420	137.5
217	321.50695154	-104.51
290	321.50210632	-31.5
484	321.50088074	162.5
280	321.51151500	-41.51
466	321.50106353	144.5
468	321.50118441	146.5
481	321.50091943	159.5
250	321.50558326	-71.51
160	321.57093642	-161.57
485	321.50089763	163.5
330	321.50211768	8.5
259	321.52156832	-62.52
488	321.50088928	166.5
317	321.50160272	-4.5
303	321.50176311	-18.5
153	321.58097421	-168.58
448	321.50097286	126.5
238	321.50406110	-83.5
246	321.50366068	-75.5

Mean Square Error = 12457.119913

Desired Output	Predict	Error

390	426.83342943	-36.83
211	327.20880778	-116.21
405	391.07026609	13.93
393	426.23690136	-33.24
305	377.93344982	-72.93
168	171.28308877	-3.28
305	380.39203242	-75.39
246	316.94481385	-70.94
305	379.25484158	-74.25
296	374.91652651	-78.92
488	453.87421209	34.13
435	409.79634568	25.2
333	379.24739308	-46.25
239	333.53223485	-94.53
303	338.09652026	-35.1
292	369.54202866	-77.54
457	444.67136984	12.33
209	326.77167602	-117.77
469	447.28020258	21.72
365	414.24610664	-49.25
333	376.97382683	-43.97
230	326.15909935	-96.16
216	326.05944923	-110.06
178	177.07381747	0.93
490	453.98605701	36.01
235	327.29568468	-92.3
271	357.77324881	-86.77
470	447.29024845	22.71
322	396.09790906	-74.1
306	383.37213307	-77.37
490	454.38757865	35.61

Mean Square Error = 4351.151261

***** Mean Square Error Average : 11820.7108 *****
641.671526

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.58

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output | Predict | Error

450	321.42119924	128.58
412	321.38241365	90.62
362	320.78099473	41.22
311	319.36694694	-8.37
292	314.29760223	-22.3
404	321.32368552	82.68
255	277.86842540	-22.87
430	321.39388640	108.61
471	321.46885718	149.53
315	318.22383723	-3.22
483	321.48461818	161.52
239	281.76107616	-42.76
448	321.42815084	126.57

172	170.79133947	1.21
247	281.63365073	-34.63
341	320.75812354	20.24
291	315.85679958	-24.86
246	224.22727307	21.77
456	321.46237271	134.54
306	318.24389969	-12.24
416	321.36029249	94.64
427	321.39222894	105.61
444	321.43161856	122.57
296	318.08077933	-22.08
315	319.73042568	-4.73
153	163.42390074	-10.42
327	320.11702831	6.88
209	237.08378071	-28.08
209	237.56714715	-28.57
360	316.91286718	43.09
211	240.13647064	-29.14

Mean Square Error = 5597.94341

Desired Output	Predict	Error
472	153.00029051	319.0
247	153.00029054	94.0
298	153.00029010	145.0
455	153.00028973	302.0
328	153.00029024	175.0
274	153.00029010	121.0
405	153.00029016	252.0
240	153.00029051	87.0
417	153.00028963	264.0
234	153.00029059	81.0
246	153.00029052	93.0
225	153.00029123	72.0
370	153.00028977	217.0
314	153.00029077	161.0
365	153.00028976	212.0
468	153.00028980	315.0
326	153.00029105	173.0
153	153.00029547	-0.0
260	153.00029105	107.0
457	153.00028992	304.0
390	153.00029033	237.0
303	153.00028996	150.0
475	153.00029037	322.0
390	153.00029061	237.0
294	153.00028998	141.0
245	153.00029126	92.0
315	153.00028999	162.0
270	153.00029343	117.0
210	153.00029155	57.0
431	153.00028967	278.0
328	153.00029017	175.0

Mean Square Error = 38651.16129

Desired Output	Predict	Error
450	464.01556051	-14.02
253	244.79872255	8.2

245	219.26834714	25.73
325	322.73132771	2.27
300	274.99368730	25.01
467	470.49531599	-3.5
156	165.54056478	-9.54
490	486.28673461	3.71
433	443.63706877	-10.64
231	216.19322929	14.81
357	358.16735616	-1.17
329	319.08983167	9.91
323	308.57000124	14.43
478	484.43091958	-6.43
438	420.69039007	17.31
249	227.23009658	21.77
380	327.62636775	52.37
360	361.11935112	-1.12
308	294.84780848	13.15
288	228.07798703	59.92
460	480.72372476	-20.72
374	369.72957123	4.27
156	165.57249168	-9.57
444	464.06727759	-20.07
305	290.92595521	14.07
218	203.08019253	14.92
310	292.88287918	17.12
315	299.30870589	15.69
424	421.00911451	2.99
213	207.10600910	5.89
490	486.49921283	3.5

Mean Square Error = 373.988348

Desired Output	Predict	Error
236	321.53898292	-85.54
259	321.49294919	-62.49
230	321.50962305	-91.51
232	321.53947389	-89.54
490	475.99424783	14.01
350	322.19533376	27.8
296	323.89413098	-27.89
247	321.72366657	-74.72
313	328.01880208	-15.02
451	444.18925558	6.81
393	361.38818797	31.61
490	476.53558549	13.46
234	321.53713247	-87.54
308	325.91336207	-17.91
490	477.01326854	12.99
490	476.92119464	13.08
286	322.82941745	-36.83
322	331.03326539	-9.03
153	321.49911719	-168.5
253	322.25588954	-69.26
314	324.80693429	-10.81
340	321.98644049	18.01
153	321.49911214	-168.5
251	322.28520208	-71.29
307	325.69289259	-18.69
381	351.57475505	29.43
351	335.85796189	15.14

300	326.22059305	-26.22
356	338.13563645	17.86
464	463.52449845	0.48
288	323.80345805	-35.8

Mean Square Error = 3774.056035

Desired Output	Predict	Error
330	317.92921107	12.07
153	170.44845251	-17.45
297	302.02834391	-5.03
445	321.15958873	123.84
469	321.36842737	147.63
212	245.32040812	-33.32
370	316.90115395	53.1
209	243.10789752	-34.11
215	241.03423362	-26.03
428	320.88697872	107.11
294	316.88757229	-22.89
262	309.60935725	-47.61
154	171.22137889	-17.22
437	321.28248744	115.72
293	316.60552424	-23.61
214	242.83461388	-28.83
259	309.07392142	-50.07
465	321.36185110	143.64
410	321.15777230	88.84
331	318.95363937	12.05
454	321.24927351	132.75
385	320.99148506	64.01
288	314.54340170	-26.54
465	321.36910378	143.63
235	250.76947320	-15.77
153	168.84363449	-15.84
242	265.03796912	-23.04
377	320.82568094	56.17
468	321.37992648	146.62
213	244.20648814	-31.21
155	171.49980971	-16.5

Mean Square Error = 5608.936823

Desired Output	Predict	Error
290	283.08178336	6.92
471	321.40058805	149.6
215	211.52207303	3.48
420	320.35726758	99.64
209	212.85627791	-3.86
160	163.93445639	-3.93
288	290.24997529	-2.25
368	319.21032269	48.79
234	219.07243288	14.93
361	318.36564396	42.63
207	182.10823896	24.89
470	321.46107770	148.54
468	321.46081177	146.54
325	315.09279329	9.91
252	263.70163737	-11.7
339	315.66306091	23.34

153	162.12627708	-9.13
470	321.38324728	148.62
353	317.96825806	35.03
270	232.83619078	37.16
300	235.39472042	64.61
465	321.36117653	143.64
390	320.12449927	69.88
217	210.92605975	6.07
232	218.20840479	13.79
467	321.35708508	145.64
294	297.87466359	-3.87
401	320.86428425	80.14
311	306.89939210	4.1
230	218.19566476	11.8
459	321.30793328	137.69

Mean Square Error = 5910.361077

Desired Output	Predict	Error
211	228.67076084	-17.67
246	252.02281389	-6.02
471	454.90278796	16.1
153	168.63767611	-15.64
232	232.19706157	-0.2
447	451.03858463	-4.04
489	474.37902611	14.62
317	317.10719708	-0.11
333	323.62038632	9.38
216	220.33399384	-4.33
156	168.85355246	-12.85
271	280.16601944	-9.17
333	328.04777113	4.95
208	222.49091304	-14.49
294	303.22054461	-9.22
382	365.53627872	16.46
398	343.34937773	54.65
335	329.40478071	5.6
245	249.37037944	-4.37
333	331.69751646	1.3
235	237.61745890	-2.62
469	453.19305728	15.81
240	233.81963776	6.18
489	474.49878121	14.5
231	237.84164480	-6.84
413	365.90055167	47.1
280	283.30961636	-3.31
307	309.16247788	-2.16
210	227.43814109	-17.44
237	178.09033804	58.91
397	377.50281177	19.5

Mean Square Error = 387.3676

Desired Output	Predict	Error
214	489.99999054	-276.0
309	489.99999445	-181.0
433	489.99999461	-57.0
396	489.99999474	-94.0
484	489.99999486	-6.0

209	489.99999044	-281.0
248	489.99999362	-242.0
345	489.99999462	-145.0
462	489.99999481	-28.0
320	489.99999443	-170.0
457	489.99999481	-33.0
244	489.99999321	-246.0
290	489.99999420	-200.0
209	489.99999032	-281.0
441	489.99999479	-49.0
243	489.99999315	-247.0
405	489.99999472	-85.0
436	489.99999479	-54.0
328	489.99999314	-162.0
470	489.99999480	-20.0
284	489.99999424	-206.0
250	489.99999378	-240.0
240	489.99999251	-250.0
303	489.99999438	-187.0
305	489.99999439	-185.0
440	489.99999480	-50.0
322	489.99999419	-168.0
238	489.99999312	-252.0
344	489.99999465	-146.0
233	489.99999287	-257.0
376	489.99999471	-114.0

Mean Square Error = 32786.193548

Desired Output	Predict	Error
486	321.50038442	164.5
490	321.50038145	168.5
337	321.50075477	15.5
265	321.50160213	-56.5
208	321.50566996	-113.51
319	321.50083020	-2.5
481	321.50041406	159.5
470	321.50043804	148.5
328	321.50078998	6.5
250	321.50464409	-71.5
224	321.54168649	-97.54
290	321.50131232	-31.5
214	321.50588256	-107.51
192	321.55440928	-129.55
327	321.50133482	5.5
276	321.50143343	-45.5
317	321.50088275	-4.5
153	321.57658791	-168.58
420	321.50084442	98.5
178	321.56085564	-143.56
165	321.56550391	-156.57
427	321.50050593	105.5
466	321.50050118	144.5
410	321.50056620	88.5
435	321.50096030	113.5
302	321.50139936	-19.5
168	321.56411242	-153.56
215	321.50601204	-106.51
215	321.50597950	-106.51
471	321.50044364	149.5

349		321.50070173		27.5
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Mean Square Error = 11971.539129

Desired Output	Predict	Error
478	321.43887499	156.56
236	210.09610435	25.9
488	321.42862591	166.57
188	185.46497863	2.54
156	185.46059432	-29.46
164	185.46101827	-21.46
481	321.39877108	159.6
340	316.36144335	23.64
488	321.41579492	166.58
208	193.68715772	14.31
305	307.75595393	-2.76
422	320.66831604	101.33
280	230.64007325	49.36
490	321.43339402	168.57
475	321.38438386	153.62
241	199.81151014	41.19
291	302.77253905	-11.77
221	190.39674368	30.6
256	273.06658172	-17.07
470	321.37637731	148.62
470	321.32951007	148.67
319	313.97967401	5.02
412	320.14058156	91.86
252	271.72996723	-19.73
486	321.43073869	164.57
447	321.12101291	125.88
268	279.09852169	-11.1
303	306.39635678	-3.4
390	320.00265318	70.0
485	321.43364981	163.57
238	198.34441732	39.66

Mean Square Error = 9850.706474

***** Mean Square Error Average : 11491.2254 *****
373.988348

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.59

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
412	489.99353014	-77.99
247	489.99340859	-242.99
296	489.99353087	-193.99
328	489.99356715	-161.99
333	489.99356886	-156.99
327	489.99349192	-162.99
268	489.99349896	-221.99

153	489.98856153	-336.99
303	489.99355164	-186.99
483	489.99358224	-6.99
440	489.99358870	-49.99
290	489.99351783	-199.99
469	489.99358287	-20.99
309	489.99354980	-180.99
390	489.99358474	-99.99
293	489.99352488	-196.99
224	489.98673665	-265.99
160	489.98861775	-329.99
331	489.99350349	-158.99
314	489.99290489	-175.99
390	489.99338708	-99.99
291	489.99352304	-198.99
290	489.99350415	-199.99
284	489.99352303	-205.99
274	489.99350943	-215.99
208	489.99293194	-281.99
393	489.99358278	-96.99
484	489.99358949	-5.99
470	489.99353876	-19.99
478	489.99357419	-11.99
490	489.99358863	0.01

Mean Square Error = 32472.149777

Desired Output	Predict	Error
368	489.99749929	-122.0
192	489.99741791	-298.0
398	489.99747434	-92.0
294	489.99747291	-196.0
153	489.99741579	-337.0
265	489.99746394	-225.0
243	489.99744989	-247.0
382	489.99750188	-108.0
153	489.99741609	-337.0
356	489.99749647	-134.0
401	489.99750182	-89.0
215	489.99743977	-275.0
322	489.99747707	-168.0
288	489.99746793	-202.0
234	489.99744585	-256.0
333	489.99747105	-157.0
327	489.99748647	-163.0
472	489.99751088	-18.0
330	489.99746889	-160.0
471	489.99751546	-19.0
213	489.99743988	-277.0
362	489.99746340	-128.0
308	489.99747671	-182.0
308	489.99746747	-182.0
247	489.99745303	-243.0
471	489.99751712	-19.0
250	489.99744326	-240.0
242	489.99744938	-248.0
397	489.99750099	-93.0
454	489.99750102	-36.0
468	489.99752372	-22.0

Mean Square Error = 37512.16129

Desired Output	Predict	Error
416	416.39592909	-0.4
451	457.86613573	-6.87
320	352.64562534	-32.65
307	336.74026384	-29.74
262	305.07802150	-43.08
214	257.34201544	-43.34
307	340.91540008	-33.92
365	381.82683813	-16.83
178	172.98894512	5.01
344	369.34450032	-25.34
294	331.90062566	-37.9
207	181.23356097	25.77
153	170.87604636	-17.88
445	418.00923615	26.99
215	256.25462641	-41.25
276	308.94337078	-32.94
404	407.12684921	-3.13
230	270.92190304	-40.92
328	362.26169789	-34.26
214	258.18201723	-44.18
245	279.07625387	-34.08
410	411.46158756	-1.46
153	171.12384522	-18.12
209	257.80315244	-48.8
230	261.85048004	-31.85
448	452.99337551	-4.99
481	470.20995460	10.79
345	372.47702188	-27.48
385	398.96492268	-13.96
211	260.58912655	-49.59
390	402.32603094	-12.33

Mean Square Error = 876.405642

Desired Output	Predict	Error
444	320.54208698	123.46
165	173.40367395	-8.4
232	202.50757539	29.49
441	320.37281425	120.63
313	314.28491718	-1.28
459	320.67554327	138.32
462	320.71246479	141.29
319	315.32725245	3.67
296	309.40829593	-13.41
245	248.89388002	-3.89
490	321.12007367	168.88
322	315.70060748	6.3
280	190.98816620	89.01
231	222.54865154	8.45
211	205.56212815	5.44
490	321.12030922	168.88
156	173.40121459	-17.4
444	320.43310397	123.57
217	195.67216031	21.33
314	252.07980130	61.92
437	320.30200705	116.7

234	228.14904167	5.85
360	318.49647113	41.5
239	241.49026860	-2.49
380	308.09324412	71.91
488	321.08853459	166.91
188	173.40966046	14.59
209	202.78837427	6.21
259	295.60229390	-36.6
298	311.34790375	-13.35
209	202.67065041	6.33

Mean Square Error = 6620.197426

Desired Output	Predict	Error
247	321.50216382	-74.5
240	321.50316456	-81.5
235	321.50405952	-86.5
412	321.50115860	90.5
172	321.54921943	-149.55
339	321.50098413	17.5
270	321.50285122	-51.5
311	321.50114401	-10.5
468	321.50081994	146.5
490	321.50075841	168.5
271	321.50152325	-50.5
475	321.50077442	153.5
424	321.50086314	102.5
396	321.50088529	74.5
450	321.50091632	128.5
270	321.51029887	-51.51
468	321.50080115	146.5
455	321.50081701	133.5
292	321.50132178	-29.5
315	321.50136946	-6.5
470	321.50081531	148.5
250	321.50176015	-71.5
221	321.50465652	-100.5
390	321.50135374	68.5
323	321.50105478	1.5
490	321.50075928	168.5
485	321.50077130	163.5
210	321.50425091	-111.5
467	321.50082829	145.5
259	321.51580634	-62.52
230	321.50312067	-91.5

Mean Square Error = 11214.588161

Desired Output	Predict	Error
410	489.99997711	-80.0
464	489.99997708	-26.0
325	489.99997710	-165.0
236	489.99997713	-254.0
156	489.99997710	-334.0
460	489.99997709	-30.0
232	489.99997714	-258.0
457	489.99997709	-33.0
422	489.99997710	-68.0
329	489.99997710	-161.0

305	489.99997711	-185.0
351	489.99997710	-139.0
288	489.99997711	-202.0
317	489.99997711	-173.0
433	489.99997710	-57.0
420	489.99997710	-70.0
470	489.99997708	-20.0
357	489.99997710	-133.0
470	489.99997708	-20.0
489	489.99997707	-1.0
288	489.99997711	-202.0
465	489.99997709	-25.0
238	489.99997714	-252.0
156	489.99997710	-334.0
340	489.99997712	-150.0
311	489.99997711	-179.0
413	489.99997710	-77.0
328	489.99997714	-162.0
153	489.99997711	-337.0
280	489.99997712	-210.0
231	489.99997714	-259.0

Mean Square Error = 31882.0

Desired Output	Predict	Error
303	321.50662109	-18.51
238	321.50977021	-83.51
305	321.50193803	-16.5
470	321.50070912	148.5
305	321.50198287	-16.5
340	321.50521939	18.49
156	321.25178303	-165.25
208	321.51058713	-113.51
475	321.50074017	153.5
433	321.50122948	111.5
490	321.50062533	168.5
361	321.50114353	39.5
215	321.51084779	-106.51
478	321.50063982	156.5
337	321.50133015	15.5
405	321.50094171	83.5
325	321.50189994	3.5
465	321.50083846	143.5
349	321.50122658	27.5
490	321.50062920	168.5
303	321.50200788	-18.5
240	321.50944262	-81.51
252	321.50363882	-69.5
465	321.50107639	143.5
164	321.28558828	-157.29
252	321.50355097	-69.5
328	321.50203449	6.5
286	321.50245530	-35.5
317	321.50181646	-4.5
427	321.50082985	105.5
291	321.50237384	-30.5

Mean Square Error = 9824.472813

Desired Output	Predict	Error
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155	183.47763450	-28.48
376	424.53715856	-48.54
374	419.43588109	-45.44
168	183.54647845	-15.55
216	256.46954382	-40.47
210	264.68959349	-54.69
370	417.80698616	-47.81
470	471.94442896	-1.94
322	364.25279877	-42.25
335	392.18789110	-57.19
153	183.44156289	-30.44
456	469.25797309	-13.26
153	183.43626095	-30.44
471	469.48916687	1.51
333	385.31190206	-52.31
300	364.14889165	-64.15
450	462.46329694	-12.46
460	470.29735375	-10.3
427	451.34084244	-24.34
241	278.72877882	-37.73
486	474.98230576	11.02
209	262.91272372	-53.91
215	257.63939809	-42.64
246	295.82758196	-49.83
212	264.45771396	-52.46
248	298.24713172	-50.25
290	299.75607493	-9.76
245	279.10807005	-34.11
214	261.09724490	-47.1
308	364.29503531	-56.3
233	277.57986350	-44.58

Mean Square Error = 1608.013684

Desired Output	Predict	Error
370	321.48460383	48.52
300	321.49181798	-21.49
489	321.49822473	167.5
302	321.48999894	-19.49
436	321.49735866	114.5
300	321.46059369	-21.46
435	321.49588706	113.5
246	303.82705901	-57.83
341	321.49494710	19.51
326	321.48424025	4.52
469	321.49782436	147.5
447	321.49749270	125.5
288	321.45847357	-33.46
377	321.49600126	55.5
319	321.49397716	-2.49
315	321.49369477	-6.49
235	321.45344281	-86.45
213	321.40606497	-108.41
253	321.48515946	-68.49
471	321.49778655	149.5
240	321.45080595	-81.45
350	321.47466957	28.53
438	321.49587641	116.5
457	321.49765288	135.5

297	321.45085278	-24.45
447	321.49690243	125.5
360	321.47969753	38.52
218	321.36483113	-103.36
466	321.49742721	144.5
431	321.49726865	109.5
209	321.39907036	-112.4

Mean Square Error = 8479.760968

Desired Output	Predict	Error
481	425.10617939	55.89
232	327.07613189	-95.08
256	339.02047353	-83.02
310	350.56774183	-40.57
430	380.92902437	49.07
420	374.12510482	45.87
244	328.71748629	-84.72
234	328.54314108	-94.54
246	331.42462722	-85.42
237	300.45742085	-63.46
490	423.64442806	66.36
417	367.41556715	49.58
315	354.41314338	-39.41
315	352.41287545	-37.41
294	348.39558278	-54.4
236	327.14640557	-91.15
306	348.94757413	-42.95
153	162.62520696	-9.63
428	376.42701175	51.57
208	327.32414038	-119.32
225	324.60645102	-99.61
486	420.64852259	65.35
255	330.38608497	-75.39
405	369.64310430	35.36
294	351.53112702	-57.53
253	339.61338389	-86.61
251	340.73516582	-89.74
353	360.39649294	-7.4
249	338.33238921	-89.33
154	162.76842872	-8.77
260	331.16137442	-71.16

Mean Square Error = 4701.152235

***** Mean Square Error Average : 14519.0902 *****
876.405642

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.6

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
235	264.68054590	-29.68

404	321.28792367	82.71
470	321.41372009	148.59
288	318.33764669	-30.34
433	321.34991511	111.65
153	167.05738136	-14.06
331	320.34897036	10.65
377	321.14747987	55.85
380	320.68024993	59.32
211	255.02079141	-44.02
361	321.08700878	39.91
230	273.79233479	-43.79
259	315.15497754	-56.15
486	321.43866159	164.56
305	319.78081679	-14.78
337	320.88704639	16.11
315	320.26573165	-5.27
344	321.01705987	22.98
438	321.28665918	116.71
156	169.88582341	-13.89
470	321.42969789	148.57
315	319.38932038	-4.39
370	321.13623137	48.86
311	320.26291468	-9.26
308	319.99418222	-11.99
308	320.09996207	-12.1
308	319.06274337	-11.06
300	319.81590387	-19.82
350	314.64941608	35.35
468	321.41112861	146.59
153	166.34420941	-13.34

Mean Square Error = 4804.906416

Desired Output	Predict	Error
246	321.06031341	-75.06
213	320.72495077	-107.72
390	321.26812447	68.73
215	320.65321030	-105.65
305	321.26443791	-16.26
385	321.33381735	63.67
470	321.36074591	148.64
489	321.37156146	167.63
475	321.36857400	153.63
465	321.35344207	143.65
291	321.24462609	-30.24
390	321.33760455	68.66
212	320.72821529	-108.73
245	320.83556928	-75.84
154	289.49666713	-135.5
427	321.34757357	105.65
270	320.97505590	-50.98
210	320.70897222	-110.71
294	321.24604976	-27.25
211	320.72540384	-109.73
436	321.35379792	114.65
335	321.30952734	13.69
249	321.13607218	-72.14
238	320.77401225	-82.77
470	321.36805139	148.63
214	320.70194192	-106.7

424	321.34548989	102.65
464	321.36677900	142.63
447	321.35653317	125.64
216	320.64419052	-104.64
325	321.29915148	3.7

Mean Square Error = 10604.136468

Desired Output	Predict	Error
390	321.51689653	68.48
221	320.42404329	-99.42
252	321.46855620	-69.47
288	321.25342186	-33.25
490	321.53794341	168.46
165	168.65281829	-3.65
444	321.51540952	122.48
435	321.57929373	113.42
153	167.91766315	-14.92
317	321.51877083	-4.52
293	321.51340559	-28.51
313	321.52075316	-8.52
376	321.51331308	54.49
247	321.40056844	-74.4
238	321.28605302	-83.29
250	321.07100616	-71.07
320	321.52049112	-1.52
290	320.79632041	-30.8
356	321.51408555	34.49
256	321.47562790	-65.48
290	321.50823078	-31.51
300	321.27804157	-21.28
156	168.33033199	-12.33
153	167.97550206	-14.98
172	168.97808166	3.02
311	321.52091998	-10.52
288	321.50648285	-33.51
330	321.52716276	8.47
302	321.50934195	-19.51
215	320.57072179	-105.57
486	321.54019035	164.46

Mean Square Error = 4726.50531

Desired Output	Predict	Error
240	315.25717100	-75.26
405	317.42378536	87.58
410	317.72616160	92.27
471	318.27619805	152.72
328	317.46705541	10.53
153	160.25548241	-7.26
322	317.11775889	4.88
288	316.87069497	-28.87
328	317.32428251	10.68
246	300.41044375	-54.41
466	318.14727267	147.85
315	317.34086624	-2.34
469	318.21242476	150.79
444	318.16075754	125.84
303	317.19206709	-14.19

341	317.52591472	23.47
215	314.36999003	-99.37
235	315.26733572	-80.27
245	315.71873464	-70.72
247	316.01101688	-69.01
457	318.00923977	138.99
465	318.10869062	146.89
306	317.20504855	-11.21
382	317.76784503	64.23
314	315.64885280	-1.65
307	317.23330106	-10.23
370	316.68807541	53.31
470	318.27121497	151.73
420	317.87894700	102.12
413	317.77916562	95.22
156	164.83362001	-8.83

Mean Square Error = 7329.98529

Desired Output	Predict	Error
215	324.71196363	-109.71
468	379.22633433	88.77
481	379.66890174	101.33
450	373.37560693	76.62
217	323.94633836	-106.95
460	376.88541251	83.11
433	368.09445598	64.91
294	352.15168587	-58.15
247	335.82547569	-88.83
322	357.04925322	-35.05
488	379.00670982	108.99
297	340.37539968	-43.38
244	330.88928722	-86.89
286	345.82605272	-59.83
294	350.39075163	-56.39
475	378.05112607	96.95
328	335.56426645	-7.56
208	325.83740354	-117.84
333	359.12461652	-26.12
317	356.05244492	-39.05
339	357.70864543	-18.71
483	379.57650235	103.42
422	368.49283659	53.51
472	379.77928101	92.22
156	168.58871585	-12.59
485	379.46299349	105.54
192	168.89876816	23.1
298	353.47638935	-55.48
490	379.44982303	110.55
360	360.88918373	-0.89
440	371.72966647	68.27

Mean Square Error = 5772.243861

Desired Output	Predict	Error
242	207.29220322	34.71
231	203.95283750	27.05
280	271.70343939	8.3
259	179.87812517	79.12

188	176.31630015	11.68
300	288.02174468	11.98
455	345.10299525	109.9
327	297.33103890	29.67
365	311.09628692	53.9
471	364.23341506	106.77
160	176.30919568	-16.31
333	304.99218750	28.01
153	176.30671648	-23.31
412	329.26387399	82.74
351	307.69324663	43.31
478	409.65264655	68.35
345	307.54582386	37.45
252	264.59766375	-12.6
240	203.31550112	36.68
214	198.43194095	15.57
234	205.96565095	28.03
340	298.49089444	41.51
292	279.64299648	12.36
462	353.01185368	108.99
284	273.42145679	10.58
327	301.20164344	25.8
465	355.43558175	109.56
468	375.52991451	92.47
469	361.52558996	107.47
207	176.35732883	30.64
255	222.64572948	32.35

Mean Square Error = 3333.943177

Desired Output	Predict	Error
290	295.06533531	-5.07
437	321.00269599	116.0
322	313.33096053	8.67
460	321.24153152	138.76
237	195.37982618	41.62
398	318.36905148	79.63
447	321.35480611	125.65
467	321.33399437	145.67
417	320.02882966	96.97
268	271.65134138	-3.65
490	321.45408422	168.55
454	321.11365338	132.89
270	214.11991904	55.88
213	211.11779255	1.88
153	163.02620892	-10.03
431	320.93014849	110.07
233	214.66963384	18.33
240	215.46870191	24.53
208	210.73106200	-2.73
459	321.26723817	137.73
153	162.58076849	-9.58
225	209.60146216	15.4
265	270.56320614	-5.56
333	312.11954768	20.88
490	321.45145645	168.55
236	215.46295198	20.54
276	276.59873351	-0.6
230	211.25183957	18.75
274	274.52690846	-0.53

471		321.36289168		149.64
168		165.20651660		2.79

Mean Square Error = 7129.457029

Desired Output		Predict		Error
328		320.04505218		7.95
368		320.89652376		47.1
357		320.73786450		36.26
253		312.21950737		-59.22
401		321.04814916		79.95
325		319.96008376		5.04
362		319.59327939		42.41
319		320.06953591		-1.07
230		262.22851152		-32.23
451		321.39664431		129.6
397		321.08153203		75.92
470		321.40406210		148.6
291		317.89954246		-26.9
209		251.28475667		-42.28
450		321.21379369		128.79
309		319.62858861		-10.63
178		174.52286719		3.48
471		321.40489822		149.6
260		282.14872430		-22.15
296		318.97446192		-22.97
441		321.31770969		119.68
164		170.27931443		-6.28
489		321.44895681		167.55
360		310.52037406		49.48
248		305.79549280		-57.8
209		250.73557975		-41.74
326		316.46788348		9.53
241		264.91273104		-23.91
329		320.28356487		8.72
271		313.57849890		-42.58
209		250.59497955		-41.59

Mean Square Error = 5092.622623

Desired Output		Predict		Error
349		153.00054936		196.0
416		153.00065329		263.0
262		153.00041013		109.0
484		153.00071470		331.0
310		153.00047344		157.0
490		153.00068622		337.0
231		153.00033502		78.0
314		153.00032901		161.0
218		153.00030736		65.0
467		153.00068051		314.0
251		153.00038609		98.0
427		153.00066660		274.0
448		153.00070345		295.0
490		153.00071219		337.0
303		153.00030731		150.0
323		153.00052379		170.0
232		153.00030715		79.0
410		153.00064712		257.0

412		153.00046414		259.0
405		153.00061371		252.0
319		153.00051480		166.0
209		153.00030506		56.0
239		153.00034407		86.0
214		153.00030614		61.0
315		153.00050689		162.0
155		153.00021637		2.0
236		153.00035107		83.0
353		153.00055434		200.0
381		153.00059528		228.0
490		153.00069955		337.0
209		153.00030534		56.0

Mean Square Error = 42750.16129

Desired Output		Predict		Error
490		321.42926684		168.57
481		321.38680830		159.61
224		182.49006695		41.51
393		319.87917307		73.12
303		305.29331554		-2.29
253		274.41505691		-21.42
374		318.65474408		55.35
390		318.39833434		71.6
210		195.53385729		14.47
209		193.92949842		15.07
245		214.73022212		30.27
445		320.65965720		124.34
243		205.83628635		37.16
428		319.87840340		108.12
296		301.00299458		-5.0
234		208.15758537		25.84
232		202.96703091		29.03
307		308.16337569		-1.16
456		321.27134602		134.73
305		309.03789174		-4.04
488		321.42052270		166.58
294		306.34499093		-12.34
457		321.14697673		135.85
430		320.62922713		109.37
280		211.46140020		68.54
420		319.62875210		100.37
396		319.85363208		76.15
340		263.52833472		76.47
234		203.15495543		30.85
232		201.62582104		30.37
246		225.13768233		20.86

Mean Square Error = 6653.228313

***** Mean Square Error Average : 9819.719 *****
3333.943177

----- Variable -----

Datafile : Flood data set
Nueral name : 8-10-6-1
Learning rate : 0.61
Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
300	296.26215972	3.74
218	211.98260707	6.02
351	317.93036908	33.07
420	320.78632649	99.21
465	321.37088617	143.63
160	162.67714830	-2.68
216	212.43957288	3.56
211	214.85823186	-3.86
405	320.42210948	84.58
252	260.43511341	-8.44
310	307.57336323	2.43
215	213.08138207	1.92
154	162.34611924	-8.35
314	309.34886729	4.65
307	305.49969394	1.5
246	229.09593183	16.9
328	315.82463044	12.18
360	304.13542976	55.86
253	260.84180860	-7.84
431	321.08901125	109.91
424	320.76045931	103.24
245	222.77293849	22.23
433	321.00266014	112.0
435	321.36383226	113.64
221	211.83958629	9.16
377	319.13471031	57.87
302	300.08993691	1.91
284	278.40015002	5.6
319	310.83463656	8.17
233	217.20602095	15.79
246	226.06241168	19.94

Mean Square Error = 3079.588026

Desired Output	Predict	Error
308	321.33414058	-13.33
462	321.39004210	140.61
320	321.33941627	-1.34
246	296.46328142	-50.46
230	320.53228411	-90.53
365	321.36494514	43.64
255	321.00246092	-66.0
294	321.30636045	-27.31
478	321.39571861	156.6
305	321.33002451	-16.33
236	320.90651883	-84.91
217	320.44082576	-103.44
308	321.31236416	-13.31
447	321.38701903	125.61
464	321.39306797	142.61
328	321.34264976	6.66
288	321.30349628	-33.3
472	321.39550935	150.6
486	321.39514379	164.6
490	321.39591005	168.6

300	321.32804114	-21.33
413	321.37271373	91.63
303	321.21178923	-18.21
235	320.97298355	-85.97
209	320.62954877	-111.63
260	321.03302029	-61.03
380	321.32254185	58.68
303	321.32891807	-18.33
486	321.39556715	164.6
340	321.17394749	18.83
484	321.39489213	162.61

Mean Square Error = 9241.0462

Desired Output	Predict	Error
471	321.34506076	149.65
417	319.64495836	97.36
397	320.47913822	76.52
469	321.32059027	147.68
270	237.46018306	32.54
215	211.86221740	3.14
396	319.82486518	76.18
444	321.03413087	122.97
248	230.71520639	17.28
376	318.90120257	57.1
471	321.33766359	149.66
410	320.17007211	89.83
256	268.41453888	-12.41
468	321.30933168	146.69
247	237.79565894	9.2
213	213.61033262	-0.61
208	211.65240416	-3.65
164	168.10638488	-4.11
444	320.93218966	123.07
448	321.00088865	127.0
250	234.68590593	15.31
153	165.73886985	-12.74
274	275.31400192	-1.31
215	211.53748524	3.46
165	168.57692412	-3.58
317	311.11870724	5.88
374	318.29584965	55.7
323	309.89093054	13.11
436	320.88087066	115.12
247	230.27953247	16.72
245	223.47774728	21.52

Mean Square Error = 6011.255019

Desired Output	Predict	Error
288	153.00036260	135.0
262	153.00039856	109.0
490	153.00068774	337.0
230	153.00035454	77.0
490	153.00069301	337.0
455	153.00055697	302.0
208	153.00034866	55.0
467	153.00055249	314.0
294	153.00042496	141.0

237	153.00027623	84.0
333	153.00045638	180.0
322	153.00045020	169.0
259	153.00029626	106.0
235	153.00034530	82.0
155	153.00025097	2.0
156	153.00025157	3.0
276	153.00040429	123.0
454	153.00050267	301.0
370	153.00047128	217.0
361	153.00046921	208.0
288	153.00041335	135.0
350	153.00037345	197.0
315	153.00044395	162.0
303	153.00043174	150.0
207	153.00026050	54.0
234	153.00035721	81.0
294	153.00042748	141.0
475	153.00064858	322.0
345	153.00046173	192.0
293	153.00042351	140.0
209	153.00034687	56.0

Mean Square Error = 34076.516129

Desired Output	Predict	Error
344	327.75203405	16.25
212	216.83162839	-4.83
298	292.16709640	5.83
296	290.17530360	5.82
290	278.55348315	11.45
410	353.17377340	56.83
271	262.72157980	8.28
460	469.20110934	-9.2
370	298.53069373	71.47
153	167.98640424	-14.99
225	212.87092744	12.13
178	168.53042557	9.47
252	257.26257252	-5.26
156	168.08309805	-12.08
390	374.36074258	15.64
247	241.71099295	5.29
483	481.89408479	1.11
168	168.36798436	-0.37
234	228.17783463	5.82
288	275.29719448	12.7
315	291.01212652	23.99
470	474.13176668	-4.13
327	299.55764005	27.44
242	225.83707052	16.16
390	369.05320192	20.95
490	481.75570504	8.24
420	382.79694683	37.2
488	481.00170811	7.0
457	450.58900037	6.41
291	278.32742351	12.67
314	243.79674135	70.2

Mean Square Error = 605.076571

Desired Output	Predict	Error
292	321.56401295	-29.56
251	321.56845118	-70.57
427	321.56227033	105.44
438	321.56251144	116.44
437	321.56241170	115.44
188	321.55851729	-133.56
333	321.56575977	11.43
325	321.56384065	3.44
172	321.55818154	-149.56
240	321.57992794	-81.58
153	321.58924823	-168.59
192	321.56028860	-129.56
253	321.56738980	-68.57
405	321.56199854	83.44
210	321.58243654	-111.58
268	321.56560683	-53.57
398	321.56396804	76.44
249	321.56903056	-72.57
209	321.58263374	-112.58
401	321.56194843	79.44
286	321.56431890	-35.56
153	321.58785536	-168.59
280	321.56467861	-41.56
471	321.56276980	149.44
471	321.56278641	149.44
382	321.56203934	60.44
450	321.56255477	128.44
243	321.57190963	-78.57
468	321.56421577	146.44
460	321.56257097	138.44
232	321.57364434	-89.57

Mean Square Error = 11102.654777

Desired Output	Predict	Error
311	153.00102293	158.0
490	153.00132987	337.0
478	153.00129691	325.0
236	153.00089193	83.0
457	153.00115658	304.0
231	153.00087620	78.0
422	153.00116385	269.0
214	153.00085370	61.0
290	153.00097822	137.0
313	153.00102215	160.0
490	153.00133111	337.0
427	153.00117139	274.0
490	153.00132454	337.0
433	153.00117538	280.0
153	153.00070945	-0.0
331	153.00100743	178.0
485	153.00130275	332.0
393	153.00112353	240.0
231	153.00087614	78.0
353	153.00107140	200.0
329	153.00105387	176.0
230	153.00087624	77.0
213	153.00085672	60.0

330		153.00099532		177.0
153		153.00071159		-0.0
153		153.00071038		-0.0
232		153.00087657		79.0
240		153.00087504		87.0
306		153.00100830		153.0
259		153.00094802		106.0
456		153.00125128		303.0

Mean Square Error = 42203.290323

Desired Output		Predict		Error
328		314.74465338		13.26
238		240.69591201		-2.7
156		167.70500300		-11.71
385		357.82092663		27.18
296		280.93129804		15.07
368		340.84939010		27.15
404		370.44992758		33.55
339		316.21906644		22.78
481		472.14932236		8.85
215		206.62838916		8.37
322		294.98868358		27.01
490		475.84209244		14.16
335		313.21378970		21.79
465		436.26293129		28.74
245		235.51820580		9.48
305		289.76747007		15.23
481		476.99993146		4.0
250		261.48769274		-11.49
465		459.85103610		5.15
416		384.68919389		31.31
489		475.86177111		13.14
341		321.72370358		19.28
238		217.66920351		20.33
209		211.39423458		-2.39
412		353.39442308		58.61
470		455.43790431		14.56
412		387.20202464		24.8
315		298.11082547		16.89
327		306.12433960		20.88
469		449.87413854		19.13
239		244.89385181		-5.89

Mean Square Error = 447.455206

Desired Output		Predict		Error
156		321.50831707		-165.51
210		321.50068198		-111.5
488		321.50100369		166.5
244		321.50060171		-77.5
214		321.50068849		-107.5
466		321.50072150		144.5
362		321.50064370		40.5
459		321.50075550		137.5
241		321.50058645		-80.5
356		321.50053477		34.5
440		321.50067548		118.5
450		321.50065483		128.5

224	321.50032389	-97.5
467	321.50078997	145.5
322	321.50062477	0.5
153	321.51581894	-168.52
489	321.50100358	167.5
294	321.50054436	-27.5
451	321.50086737	129.5
325	321.50056943	3.5
315	321.50058023	-6.5
470	321.50080226	148.5
390	321.50065922	68.5
305	321.50055178	-16.5
209	321.50068268	-112.5
470	321.50120170	148.5
470	321.50078921	148.5
337	321.50055944	15.5
317	321.50059424	-4.5
333	321.50066707	11.5
280	321.50068017	-41.5

Mean Square Error = 11463.477435

Desired Output	Predict	Error
307	305.33983932	1.66
447	321.43980461	125.56
234	218.69877456	15.3
441	321.23046285	119.77
308	307.59985937	0.4
326	311.52494848	14.48
428	320.78568391	107.21
360	318.71971643	41.28
297	297.15652388	-0.16
319	312.78757452	6.21
265	266.66847345	-1.67
475	321.45372700	153.55
270	218.42095809	51.58
430	321.03271495	108.97
340	316.53261421	23.47
209	216.01335262	-7.01
214	215.85052166	-1.85
328	241.45982256	86.54
445	321.19022786	123.81
211	216.59801543	-5.6
349	317.66356827	31.34
240	225.38235070	14.62
311	309.97069712	1.03
300	231.58822606	68.41
153	159.34854007	-6.35
290	268.71036491	21.29
291	297.52151688	-6.52
208	215.56657007	-7.57
381	319.90006470	61.1
232	217.38803069	14.61
468	321.44522498	146.55

Mean Square Error = 4427.59839

***** Mean Square Error Average : 12265.7958 *****
447.455206

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.62

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
274	261.44669455	12.55
192	164.66937575	27.33
445	398.45782202	46.54
244	225.10225930	18.9
470	461.52640097	8.47
247	238.66587130	8.33
315	301.25608360	13.74
288	273.29638876	14.7
276	262.66877437	13.33
435	426.19411418	8.81
438	388.85320640	49.15
210	212.59460784	-2.59
323	302.93744055	20.06
410	384.21367688	25.79
224	169.07671965	54.92
327	306.18476659	20.82
478	482.41291605	-4.41
326	288.95683126	37.04
207	166.59916062	40.4
322	308.74906089	13.25
308	292.65013701	15.35
468	459.30536508	8.69
377	347.97659467	29.02
153	163.03046247	-10.03
370	343.07131195	26.93
490	480.79757394	9.2
454	416.80530642	37.19
215	208.79285036	6.21
457	425.05419879	31.95
168	163.54101858	4.46
208	206.38235892	1.62

Mean Square Error = 609.562523

Desired Output	Predict	Error
333	153.00005476	180.0
345	153.00005515	192.0
451	153.00006093	298.0
234	153.00004719	81.0
465	153.00005941	312.0
311	153.00005400	158.0
300	153.00005285	147.0
401	153.00005601	248.0
303	153.00004895	150.0
331	153.00005427	178.0
340	153.00004893	187.0
294	153.00005233	141.0
410	153.00005562	257.0
390	153.00005660	237.0

398		153.00005351		245.0
485		153.00006505		332.0
284		153.00005146		131.0
337		153.00005486		184.0
471		153.00006131		318.0
232		153.00004674		79.0
238		153.00004717		85.0
308		153.00005279		155.0
478		153.00006350		325.0
465		153.00006426		312.0
430		153.00005792		277.0
317		153.00005420		164.0
433		153.00005809		280.0
238		153.00004618		85.0
433		153.00005611		280.0
288		153.00004795		135.0
483		153.00006526		330.0

Mean Square Error = 50287.967742

Desired Output		Predict		Error
489		489.99991735		-1.0
462		489.99991890		-28.0
314		489.99991587		-176.0
252		489.99991757		-238.0
230		489.99991451		-260.0
325		489.99991989		-165.0
420		489.99992034		-70.0
153		489.99991237		-337.0
340		489.99991629		-150.0
208		489.99991441		-282.0
333		489.99991778		-157.0
209		489.99991425		-281.0
450		489.99991911		-40.0
447		489.99991944		-43.0
396		489.99992040		-94.0
240		489.99991628		-250.0
235		489.99991613		-255.0
455		489.99991920		-35.0
470		489.99991854		-20.0
288		489.99991924		-202.0
245		489.99991653		-245.0
490		489.99991707		0.0
310		489.99991947		-180.0
154		489.99991241		-336.0
350		489.99991654		-140.0
470		489.99991810		-20.0
440		489.99991965		-50.0
239		489.99991631		-251.0
233		489.99991601		-257.0
329		489.99992039		-161.0
213		489.99991428		-277.0

Mean Square Error = 37067.516129

Desired Output		Predict		Error
468		449.89830488		18.1
405		392.32364461		12.68
153		166.19674603		-13.2

360	366.68585848	-6.69
393	386.00541913	6.99
314	363.34590812	-49.35
484	445.18660452	38.81
259	320.86213162	-61.86
361	371.47328792	-10.47
315	360.03221617	-45.03
490	448.70650510	41.29
160	166.93931095	-6.94
376	372.57318812	3.43
215	323.50426586	-108.5
490	448.30878346	41.69
243	325.30614827	-82.31
307	353.58809000	-46.59
240	324.82753190	-84.83
339	359.18961860	-20.19
252	339.74891179	-87.75
262	338.12377296	-76.12
237	307.93271441	-70.93
153	166.23853635	-13.24
385	381.89726100	3.1
245	325.71578260	-80.72
325	374.70538611	-49.71
475	442.29661886	32.7
231	324.18178113	-93.18
466	430.73327339	35.27
417	380.03914552	36.96
155	166.51773932	-11.52

Mean Square Error = 2667.029539

Desired Output	Predict	Error
232	153.00019379	79.0
422	153.00020988	269.0
413	153.00020891	260.0
441	153.00021036	288.0
208	153.00019146	55.0
349	153.00020612	196.0
308	153.00020358	155.0
431	153.00021028	278.0
178	153.00017968	25.0
255	153.00019300	102.0
464	153.00021182	311.0
225	153.00019124	72.0
353	153.00020635	200.0
245	153.00019544	92.0
427	153.00020978	274.0
448	153.00021112	295.0
280	153.00018822	127.0
305	153.00020256	152.0
444	153.00021092	291.0
256	153.00019890	103.0
212	153.00019139	59.0
471	153.00021050	318.0
490	153.00021222	337.0
315	153.00020424	162.0
328	153.00020180	175.0
242	153.00019481	89.0
214	153.00019134	61.0
327	153.00020035	174.0

490		153.00021207		337.0
294		153.00020152		141.0
475		153.00020856		322.0

Mean Square Error = 44645.580645

Desired Output		Predict		Error
253		261.27549698		-8.28
172		163.93886146		8.06
356		318.18765814		37.81
209		213.59785572		-4.6
469		321.41139239		147.59
234		218.11229902		15.89
328		316.24520066		11.75
309		308.91362236		0.09
231		216.46783420		14.53
294		301.88589699		-7.89
156		160.78802259		-4.79
311		307.57899861		3.42
412		321.16103568		90.84
481		321.45546113		159.54
365		319.04302827		45.96
472		321.47661281		150.52
307		306.89971435		0.1
322		308.74987251		13.25
424		320.70905619		103.29
235		215.60252134		19.4
215		212.50224781		2.5
305		303.55754624		1.44
315		310.52411140		4.48
211		214.44247670		-3.44
362		318.80497678		43.2
165		162.81395650		2.19
457		321.33798455		135.66
460		321.35003298		138.65
488		321.46464506		166.54
370		313.50549067		56.49
246		206.76869771		39.23

Mean Square Error = 5347.2366

Desired Output		Predict		Error
412		304.98330690		107.02
460		318.84963003		141.15
209		191.82782029		17.17
156		160.30024515		-4.3
265		278.34030981		-13.34
380		278.90998118		101.09
296		296.43648797		-0.44
322		300.87276736		21.13
248		258.28382146		-10.28
247		253.85958465		-6.86
486		319.32792654		166.67
236		229.60026627		6.4
300		297.65005731		2.35
291		292.79865607		-1.8
270		219.21794483		50.78
319		306.24028103		12.76
294		287.69227702		6.31

211	193.02975014	17.97
247	244.27071223	2.73
469	318.39544035	150.6
471	318.05979260	152.94
306	301.74170430	4.26
368	314.23928704	53.76
251	267.65168065	-16.65
153	160.19764895	-7.2
259	275.80639366	-16.81
246	242.57098706	3.43
468	318.99708953	149.0
217	189.02586276	27.97
153	160.19326097	-7.19
241	220.32622216	20.67

Mean Square Error = 4731.988371

Desired Output	Predict	Error
290	267.99029608	22.01
470	478.02834914	-8.03
328	233.91973972	94.08
250	240.25707741	9.74
465	475.72787238	-10.73
344	340.79008018	3.21
397	407.77087049	-10.77
390	363.94877329	26.05
280	252.38072142	27.62
209	205.12591864	3.87
250	224.60394878	25.4
296	268.33646218	27.66
298	286.31679545	11.68
270	225.11200461	44.89
427	442.46214984	-15.46
246	221.71056196	24.29
260	225.94281294	34.06
156	167.12513737	-11.13
328	327.47964632	0.52
268	247.53291460	20.47
300	226.44901557	73.55
209	204.81581297	4.18
305	288.57998062	16.42
459	472.83524616	-13.84
253	241.89275918	11.11
317	304.10778817	12.89
221	201.08923208	19.91
416	428.59876457	-12.6
271	248.37321939	22.63
420	391.39716150	28.6
302	272.97799975	29.02

Mean Square Error = 844.902348

Desired Output	Predict	Error
290	321.50595609	-31.51
470	321.51460775	148.49
230	321.50437962	-91.5
390	321.50460177	68.5
292	321.50442591	-29.5
320	321.50488074	-1.5

490	321.50933567	168.49
382	321.50455771	60.5
437	321.50527401	115.49
153	321.50664070	-168.51
341	321.50468852	19.5
456	321.50656859	134.49
357	321.50468426	35.5
234	321.50446485	-87.5
153	321.50670687	-168.51
213	321.50499344	-108.5
210	321.50502012	-111.51
488	321.50935667	166.49
444	321.50543733	122.49
351	321.50442754	29.5
471	321.50688419	149.49
447	321.50986479	125.49
164	321.50639771	-157.51
450	321.50567669	128.49
215	321.50476247	-106.5
335	321.50447066	13.5
381	321.50477361	59.5
428	321.50550070	106.49
390	321.50544613	68.49
481	321.51083387	159.49
236	321.50447966	-85.5

Mean Square Error = 12180.6007

Desired Output	Predict	Error
467	321.49677814	145.5
209	321.49548280	-112.5
360	321.49537093	38.5
303	321.49596879	-18.5
232	321.49558477	-89.5
405	321.49670377	83.5
240	321.49536919	-81.5
436	321.49685555	114.5
374	321.49654433	52.5
303	321.49587758	-18.5
297	321.49544661	-24.5
286	321.49574621	-35.5
216	321.49554046	-105.5
313	321.49606383	-8.5
293	321.49575484	-28.5
153	321.51124293	-168.51
249	321.49520633	-72.5
319	321.49621013	-2.5
218	321.49557921	-103.5
404	321.49673701	82.5
470	321.49682537	148.5
156	321.51066243	-165.51
330	321.49564757	8.5
290	321.49569242	-31.5
489	321.49696950	167.5
486	321.49693327	164.5
288	321.49567299	-33.5
333	321.49567846	11.5
490	321.49697825	168.5
188	321.50898373	-133.51
214	321.49545487	-107.5

Mean Square Error = 9780.358074

***** Mean Square Error Average : 16816.2743 *****

609.562523

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.63

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
233	321.50709152	-88.51
410	321.50148712	88.5
404	321.50140617	82.5
153	321.57357491	-168.57
232	321.50760264	-89.51
328	321.50201973	6.5
322	321.50321271	0.5
153	321.57108437	-168.57
294	321.50288723	-27.5
470	321.50106922	148.5
309	321.50243535	-12.5
208	321.50965829	-113.51
240	321.50770305	-81.51
405	321.50262441	83.5
300	321.50259424	-21.5
361	321.50172676	39.5
208	321.51024115	-113.51
422	321.50132254	100.5
310	321.50251267	-11.5
381	321.50157081	59.5
481	321.50116618	159.5
341	321.50190179	19.5
431	321.50127450	109.5
245	321.50601403	-76.51
236	321.50764604	-85.51
420	321.50138638	98.5
251	321.50432141	-70.5
350	321.50552681	28.49
345	321.50185738	23.5
270	321.52138246	-51.52
276	321.50333240	-45.5

Mean Square Error = 7652.948419

Desired Output	Predict	Error
155	161.79602874	-6.8
427	321.62746870	105.37
153	161.64336390	-8.64
459	321.62716450	137.37
242	321.60755959	-79.61
390	321.67846271	68.32
471	321.62787767	149.37
213	321.56306228	-108.56

327	321.63460130	5.37
288	321.64553408	-33.65
464	321.62633618	142.37
238	321.56027035	-83.56
481	321.62612293	159.37
250	321.66964985	-71.67
245	321.64388746	-76.64
302	321.65842198	-19.66
247	321.65612353	-74.66
300	321.64943127	-21.65
465	321.62711520	143.37
441	321.62741047	119.37
471	321.62752406	149.37
475	321.62620138	153.37
486	321.62606292	164.37
306	321.64128062	-15.64
486	321.62696044	164.37
325	321.63749500	3.36
470	321.62724039	148.37
322	321.63818530	0.36
490	321.62627932	168.37
280	321.25997340	-41.26
231	321.58962316	-90.59

Mean Square Error = 11020.882165

Desired Output	Predict	Error
416	321.48079272	94.52
153	153.56274815	-0.56
234	321.44421572	-87.44
397	321.48036995	75.52
382	321.48025959	60.52
317	321.47745912	-4.48
330	321.47503671	8.52
370	321.47966246	48.52
308	321.47636346	-13.48
405	321.48031217	83.52
156	153.82471044	2.18
319	321.47770919	-2.48
377	321.47985105	55.52
268	321.47061833	-53.47
256	321.46919537	-65.47
328	321.47664284	6.52
328	321.47643413	6.52
417	321.48050495	95.52
214	321.41231122	-107.41
351	321.47945635	29.52
216	321.40381544	-105.4
484	321.48176292	162.52
165	154.17786175	10.82
333	321.47845109	11.52
297	321.45252257	-24.45
160	153.97113141	6.03
284	321.47260191	-37.47
325	321.47674728	3.52
315	321.47406251	-6.47
307	321.47604865	-14.48
468	321.48167114	146.52

Mean Square Error = 4159.620797

Desired Output	Predict	Error
385	153.00020084	232.0
314	153.00051048	161.0
212	153.00026224	59.0
398	153.00048111	245.0
413	153.00018577	260.0
457	153.00034802	304.0
235	153.00023723	82.0
444	153.00018491	291.0
478	153.00016369	325.0
296	153.00022805	143.0
445	153.00039023	292.0
437	153.00018493	284.0
247	153.00021641	94.0
230	153.00029236	77.0
244	153.00023789	91.0
440	153.00017004	287.0
294	153.00021490	141.0
471	153.00025007	318.0
370	153.00064922	217.0
489	153.00020291	336.0
290	153.00134005	137.0
393	153.00020171	240.0
322	153.00025310	169.0
457	153.00018492	304.0
412	153.00168478	259.0
208	153.00023976	55.0
340	153.00055418	187.0
320	153.00024705	167.0
291	153.00022634	138.0
232	153.00030826	79.0
485	153.00022894	332.0

Mean Square Error = 49641.612903

Desired Output	Predict	Error
357	489.99954142	-133.0
467	489.99952213	-23.0
209	489.99904586	-281.0
224	489.99911574	-266.0
225	489.99912124	-265.0
240	489.99920146	-250.0
401	489.99961944	-89.0
235	489.99908518	-255.0
286	489.99937366	-204.0
248	489.99919011	-242.0
317	489.99939392	-173.0
230	489.99918664	-260.0
308	489.99924612	-182.0
469	489.99959759	-21.0
249	489.99920128	-241.0
178	489.99917726	-312.0
298	489.99933339	-192.0
265	489.99930496	-225.0
153	489.99918533	-337.0
424	489.99965017	-66.0
488	489.99945683	-2.0
362	489.99900062	-128.0

455	489.99963663	-35.0
291	489.99932026	-199.0
376	489.99962565	-114.0
490	489.99949229	0.0
290	489.99928148	-200.0
462	489.99962132	-28.0
156	489.99918449	-334.0
164	489.99917929	-326.0
472	489.99866308	-18.0

Mean Square Error = 41769.967742

Desired Output	Predict	Error
333	358.54263418	-25.54
489	468.96781205	20.03
327	346.08179374	-19.08
380	350.99052784	29.01
250	283.24012082	-33.24
448	447.42905481	0.57
478	476.22634031	1.77
238	289.32257786	-51.32
300	342.75793682	-42.76
470	451.88520689	18.11
290	327.44780077	-37.45
209	261.28121721	-52.28
390	363.96190312	26.04
390	401.59217682	-11.59
483	470.84088365	12.16
356	378.56646235	-22.57
221	255.68708116	-34.69
374	387.12338441	-13.12
192	174.10684698	17.89
210	262.70249566	-52.7
236	281.49720790	-45.5
259	245.33306085	13.67
460	435.04936444	24.95
450	438.62339257	11.38
237	195.14533295	41.85
436	429.18069822	6.82
470	448.69665575	21.3
467	449.56535570	17.43
488	468.14521623	19.85
315	349.74086807	-34.74
209	260.73672136	-51.74

Mean Square Error = 905.752694

Desired Output	Predict	Error
447	321.50961521	125.49
247	321.51469590	-74.51
209	321.52138026	-112.52
260	321.51750900	-61.52
465	321.50974909	143.49
331	321.51137416	9.49
360	321.51367036	38.49
215	321.52130237	-106.52
259	321.51252192	-62.51
444	321.50963610	122.49
466	321.50957236	144.49

340	321.51495619	18.49
314	321.51604042	-7.52
313	321.51064368	-8.51
156	321.57645215	-165.58
253	321.51279512	-68.51
214	321.52133196	-107.52
214	321.52128235	-107.52
172	321.57249383	-149.57
456	321.50959698	134.49
245	321.51927048	-76.52
465	321.50959505	143.49
326	321.51418103	4.49
241	321.51622762	-80.52
293	321.51143410	-28.51
311	321.51072118	-10.51
303	321.51108542	-18.51
271	321.51209165	-50.51
468	321.50960713	146.49
307	321.51097262	-14.51
232	321.51680024	-89.52

Mean Square Error = 8827.4599

Desired Output	Predict	Error
154	321.50215534	-167.5
305	321.50017447	-16.5
294	321.50019747	-27.5
433	321.50010688	111.5
168	321.50198735	-153.5
438	321.50013873	116.5
365	321.50011962	43.5
435	321.50021316	113.5
215	321.50040630	-106.5
303	321.50034957	-18.5
433	321.50014410	111.5
246	321.50026052	-75.5
270	321.50031298	-51.5
311	321.50014920	-10.5
390	321.50010486	68.5
252	321.50022411	-69.5
217	321.50039284	-104.5
231	321.50030025	-90.5
288	321.50019466	-33.5
339	321.50012154	17.5
349	321.50012992	27.5
188	321.50183462	-133.5
153	321.50237153	-168.5
296	321.50016417	-25.5
460	321.50012407	138.5
471	321.50012847	149.5
274	321.50018641	-47.5
315	321.50015878	-6.5
280	321.50017907	-41.5
234	321.50027733	-87.5
447	321.50022100	125.5

Mean Square Error = 8795.08871

Desired Output	Predict	Error

490	489.82870648	0.17
337	489.82857328	-152.83
246	489.82875666	-243.83
490	489.82870785	0.17
253	489.82866301	-236.83
209	489.82898771	-280.83
430	489.82860812	-59.83
215	489.82898613	-274.83
344	489.82857351	-145.83
490	489.82869645	0.17
428	489.82857332	-61.83
305	489.82858916	-184.83
490	489.82870811	0.17
368	489.82858248	-121.83
451	489.82865971	-38.83
288	489.82861326	-201.83
303	489.82858183	-186.83
470	489.82864630	-19.83
412	489.82858074	-77.83
239	489.82882177	-250.83
211	489.82897914	-278.83
450	489.82858493	-39.83
240	489.82893602	-249.83
454	489.82858796	-35.83
211	489.82898042	-278.83
396	489.82859147	-93.83
234	489.82886125	-255.83
469	489.82862570	-20.83
315	489.82857722	-174.83
210	489.82898422	-279.83
207	489.82681404	-282.83

Mean Square Error = 32316.515997

Desired Output	Predict	Error
323	489.76121354	-166.76
353	489.76199319	-136.76
294	489.75894822	-195.76
288	489.75615485	-201.76
213	489.75547078	-276.76
410	489.76400824	-79.76
305	489.75976031	-184.76
490	489.76233149	0.24
468	489.76337774	-21.76
153	489.75311546	-336.75
475	489.75980158	-14.76
360	489.76327248	-129.76
153	489.75307804	-336.75
490	489.76262615	0.24
230	489.75629820	-259.76
243	489.75666021	-246.76
218	489.75557350	-271.76
329	489.76181634	-160.76
215	489.75554087	-274.76
252	489.75737351	-237.76
335	489.76207732	-154.76
292	489.75938140	-197.76
156	489.75325202	-333.75
328	489.75644129	-161.76
262	489.75810430	-227.76

427		489.76408240		-62.76
246		489.75438057		-243.75
420		489.75996638		-69.76
255		489.75583351		-234.76
209		489.75545797		-280.76
470		489.75841387		-19.76

Mean Square Error = 42002.881458

***** Mean Square Error Average : 20709.2731 *****
905.752694

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.64

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
460		321.41230694		138.59
376		319.94073899		56.06
447		321.32696050		125.67
286		280.23770240		5.76
256		264.34734341		-8.35
317		312.73677804		4.26
247		233.07185600		13.93
470		321.44190678		148.56
153		160.22619525		-7.23
405		320.76440135		84.24
405		320.73718222		84.26
330		313.52685509		16.47
253		262.51471980		-9.51
412		320.89764856		91.1
230		217.80340980		12.2
468		321.48110859		146.52
478		321.46329335		156.54
484		321.46856996		162.53
215		213.40358253		1.6
362		319.92899380		42.07
471		321.44856703		149.55
365		319.57161801		45.43
172		164.29069215		7.71
230		217.77156693		12.23
349		318.14876698		30.85
470		321.48202658		148.52
271		271.86171535		-0.86
238		216.96289620		21.04
247		234.53744910		12.46
192		173.23598924		18.76
211		215.62371368		-4.62

Mean Square Error = 6657.015348

Desired Output		Predict		Error
270		321.46587883		-51.47
307		321.47477124		-14.47

344	321.47613124	22.52
294	321.47415321	-27.47
215	321.45866269	-106.46
424	321.47675357	102.52
416	321.47677202	94.52
249	321.47089425	-72.47
472	321.47706227	150.52
467	321.47703210	145.52
433	321.47612137	111.52
340	321.47250071	18.53
460	321.47709221	138.52
469	321.47703975	147.52
213	321.46033942	-108.46
296	321.47440502	-25.47
457	321.47670482	135.52
465	321.47702599	143.52
218	321.45789659	-103.46
333	321.47450752	11.53
308	321.47368250	-13.47
292	321.47394655	-29.47
470	321.47704000	148.52
154	321.43089110	-167.43
225	321.45793514	-96.46
390	321.47659226	68.52
357	321.47614034	35.52
252	321.47166485	-69.47
262	321.47237035	-59.47
413	321.47659227	91.52
245	321.46794655	-76.47

Mean Square Error = 9319.80541

Desired Output	Predict	Error
475	153.00339648	322.0
488	153.00339645	335.0
377	153.00339678	224.0
401	153.00339672	248.0
468	153.00339649	315.0
290	153.00339725	137.0
306	153.00339707	153.0
303	153.00339710	150.0
319	153.00339697	166.0
305	153.00339712	152.0
156	153.00340411	3.0
231	153.00339817	78.0
438	153.00339678	285.0
247	153.00339769	94.0
422	153.00339665	269.0
215	153.00339851	62.0
451	153.00339653	298.0
351	153.00339682	198.0
435	153.00339681	282.0
361	153.00339683	208.0
385	153.00339675	232.0
211	153.00339842	58.0
433	153.00339662	280.0
214	153.00339846	61.0
252	153.00339747	99.0
325	153.00339694	172.0
250	153.00339749	97.0

303		153.00339711		150.0
356		153.00339681		203.0
290		153.00339723		137.0
471		153.00339654		318.0

Mean Square Error = 43129.419355

Desired Output		Predict		Error
339		153.00246031		186.0
288		153.00247363		135.0
471		153.00244725		318.0
188		153.00254725		35.0
259		153.00247918		106.0
396		153.00245421		243.0
268		153.00247805		115.0
239		153.00249222		86.0
288		153.00249331		135.0
237		153.00253710		84.0
485		153.00244408		332.0
450		153.00244863		297.0
235		153.00250035		82.0
253		153.00247974		100.0
156		153.00255044		3.0
322		153.00247445		169.0
397		153.00245589		244.0
322		153.00246487		169.0
327		153.00247394		174.0
153		153.00255216		-0.0
208		153.00250010		55.0
475		153.00244302		322.0
417		153.00245403		264.0
213		153.00250049		60.0
345		153.00246155		192.0
224		153.00254145		71.0
242		153.00249238		89.0
368		153.00245674		215.0
168		153.00254944		15.0
153		153.00255284		-0.0
230		153.00250235		77.0

Mean Square Error = 29537.645161

Desired Output		Predict		Error
210		153.00000441		57.0
243		153.00000441		90.0
280		153.00000441		127.0
455		153.00000441		302.0
308		153.00000441		155.0
156		153.00000441		3.0
490		153.00000441		337.0
462		153.00000441		309.0
209		153.00000441		56.0
420		153.00000441		267.0
294		153.00000441		141.0
156		153.00000441		3.0
209		153.00000441		56.0
483		153.00000441		330.0
216		153.00000441		63.0
308		153.00000441		155.0

337		153.00000441		184.0
444		153.00000441		291.0
427		153.00000441		274.0
214		153.00000441		61.0
382		153.00000441		229.0
314		153.00000441		161.0
489		153.00000441		336.0
215		153.00000441		62.0
412		153.00000441		259.0
315		153.00000441		162.0
328		153.00000441		175.0
350		153.00000441		197.0
437		153.00000441		284.0
296		153.00000441		143.0
450		153.00000441		297.0

Mean Square Error = 42923.225806

Desired Output		Predict		Error
313		314.99941064		-2.0
448		320.23264270		127.77
490		320.89127363		169.11
457		320.47807597		136.52
300		278.70289991		21.3
325		315.59085843		9.41
410		319.88028450		90.12
209		222.96059573		-13.96
236		266.83469787		-30.83
276		306.63280878		-30.63
486		320.80811817		165.19
353		318.33676310		34.66
153		153.45336824		-0.45
212		225.88328826		-13.88
410		319.48319826		90.52
327		316.65912170		10.34
490		320.88321635		169.12
331		314.21695075		16.78
470		320.62932519		149.37
490		320.89263720		169.11
207		160.92602072		46.07
468		320.61266362		147.39
470		320.73332204		149.27
232		262.47819840		-30.48
398		317.84442303		80.16
390		317.62075986		72.38
259		238.69588797		20.3
240		257.07320006		-17.07
444		320.34717967		123.65
459		320.49711781		138.5
465		320.51201774		144.49

Mean Square Error = 9866.5045

Desired Output		Predict		Error
370		343.95152083		26.05
155		321.50292576		-166.5
390		345.23586654		44.76
236		321.60009132		-85.6
478		481.14540464		-3.15

314	321.84795208	-7.85
234	321.59580027	-87.6
340	322.20905162	17.79
470	450.89217068	19.11
441	405.31683383	35.68
481	480.51159289	0.49
232	321.56362651	-89.56
360	342.42815661	17.57
322	332.04422906	-10.04
428	360.93821146	67.06
490	480.16243619	9.84
328	334.45205720	-6.45
333	332.22494229	0.78
490	478.90663569	11.09
260	321.77429887	-61.77
160	321.50289721	-161.5
235	321.61178963	-86.61
300	325.38745529	-25.39
164	321.50291355	-157.5
335	333.28880574	1.71
234	321.64561892	-87.65
293	325.90487489	-32.9
284	323.32406320	-39.32
465	469.50946246	-4.51
481	473.07816255	7.92
464	462.57967633	1.42

Mean Square Error = 4318.403261

Desired Output	Predict	Error
333	318.08809351	14.91
245	235.21626808	9.78
178	168.30823768	9.69
300	313.06908283	-13.07
294	310.44271881	-16.44
209	226.46540983	-17.47
248	243.08279929	4.92
209	226.14410186	-17.14
466	321.41333626	144.59
319	316.24359641	2.76
328	318.72798810	9.27
489	321.46095945	167.54
303	314.06672755	-11.07
305	312.54588873	-7.55
381	320.45682276	60.54
490	321.46615982	168.53
246	245.91532842	0.08
238	246.95113515	-8.95
469	321.42249267	147.58
302	309.42814218	-7.43
291	305.25718779	-14.26
233	229.09288089	3.91
430	321.14801503	108.85
246	219.17124577	26.83
420	320.81081087	99.19
246	241.79741638	4.2
317	316.54886678	0.45
315	313.30933909	1.69
315	315.24659972	-0.25
153	160.54335222	-7.54

490		321.46633521		168.53
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Mean Square Error = 5026.232745

Desired Output		Predict		Error
217		321.52814349		-104.53
265		322.66148237		-57.66
393		365.71065755		27.29
251		322.53658242		-71.54
208		321.55214601		-113.55
445		396.41683712		48.58
486		481.43785096		4.56
431		402.73466440		28.27
454		415.82572681		38.17
250		321.65388265		-71.65
309		328.52344725		-19.52
255		321.70382802		-66.7
374		347.44438164		26.56
315		328.61313656		-13.61
471		462.65334064		8.35
290		321.97649427		-31.98
311		329.08513061		-18.09
427		386.94808767		40.05
153		321.50014326		-168.5
240		321.56928181		-81.57
209		321.54638226		-112.55
360		323.48127068		36.52
436		409.24647758		26.75
467		453.91346955		13.09
404		368.94589143		35.05
291		325.16599311		-34.17
288		324.42700665		-36.43
326		326.91369469		-0.91
153		321.50013754		-168.5
208		321.54570148		-113.55
329		332.38072210		-3.38

Mean Square Error = 4725.091881

Desired Output		Predict		Error
234		489.99999799		-256.0
214		489.99999799		-276.0
294		489.99999800		-196.0
305		489.99999800		-185.0
390		489.99999800		-100.0
240		489.99999799		-250.0
380		489.99999800		-110.0
298		489.99999800		-192.0
280		489.99999800		-210.0
165		489.99999786		-325.0
210		489.99999799		-280.0
274		489.99999800		-216.0
307		489.99999800		-183.0
153		489.99999780		-337.0
153		489.99999782		-337.0
288		489.99999800		-202.0
297		489.99999799		-193.0
456		489.99999800		-34.0
231		489.99999799		-259.0

323	489.99999800	-167.0
270	489.99999797	-220.0
245	489.99999799	-245.0
341	489.99999800	-149.0
440	489.99999800	-50.0
241	489.99999799	-249.0
370	489.99999800	-120.0
244	489.99999799	-246.0
320	489.99999800	-170.0
447	489.99999800	-43.0
311	489.99999800	-179.0
328	489.99999799	-162.0

Mean Square Error = 45305.83871

***** Mean Square Error Average : 20080.9182 *****
4318.403261

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.65

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
209	243.92615599	-34.93
365	321.28731395	43.71
490	321.48886829	168.51
374	321.29065003	52.71
433	321.41657131	111.58
460	321.48089246	138.52
469	321.47880200	147.52
209	243.63765348	-34.64
188	176.27613639	11.72
305	320.02321536	-15.02
314	293.81041244	20.19
333	320.70712304	12.29
245	278.00094631	-33.0
168	170.68518882	-2.69
300	288.48433524	11.52
307	320.06461116	-13.06
274	314.77449586	-40.77
214	243.95422690	-29.95
213	244.45366474	-31.45
440	321.45761588	118.54
211	247.22976545	-36.23
215	240.13027087	-25.13
240	281.31062537	-41.31
235	253.53430041	-18.53
464	321.48236270	142.52
328	320.90172264	7.1
428	321.39637721	106.6
478	321.48859850	156.51
340	320.81457659	19.19
153	165.82797258	-12.83
360	318.39415982	41.61

Mean Square Error = 5525.978806

Desired Output	Predict	Error
322	313.53593721	8.46
156	161.78333407	-5.78
435	321.33614428	113.66
390	319.20917993	70.79
401	320.77364161	80.23
486	321.46416204	164.54
308	307.76464611	0.24
231	215.59092121	15.41
450	321.17584155	128.82
291	295.80437868	-4.8
382	319.77401139	62.23
207	183.62594881	23.37
265	271.71836802	-6.72
210	212.69488520	-2.69
465	321.34808471	143.65
437	321.06825332	115.93
209	211.82160801	-2.82
490	321.46751936	168.53
472	321.46966914	150.53
231	216.53194244	14.47
259	210.20905223	48.79
153	160.26594065	-7.27
253	265.38928212	-12.39
326	311.31151836	14.69
470	321.42564836	148.57
490	321.46668530	168.53
431	320.99376466	110.01
447	321.42879288	125.57
238	214.29618026	23.7
339	315.69688853	23.3
236	220.71935374	15.28

Mean Square Error = 7764.887855

Desired Output	Predict	Error
470	321.45680815	148.54
240	320.89991668	-80.9
333	321.43393584	11.57
303	321.41172872	-18.41
262	321.34561814	-59.35
485	321.45973830	163.54
252	321.31693370	-69.32
160	153.54718886	6.45
490	321.46063169	168.54
238	321.08766750	-83.09
280	318.40477960	-38.4
239	321.07474515	-82.07
230	320.92648259	-90.93
156	153.49058273	2.51
315	321.42229492	-6.42
471	321.45758531	149.54
490	321.46094130	168.54
467	321.45558066	145.54
362	321.35920784	40.64
230	320.29499206	-90.29
349	321.43954839	27.56

470	321.45239524	148.55
246	274.48510178	-28.49
390	321.45114212	68.55
315	321.37933799	-6.38
444	321.45759129	122.54
290	321.38369248	-31.38
297	320.79931755	-23.8
268	321.35427168	-53.35
317	321.42442649	-4.42
457	321.45101713	135.55

Mean Square Error = 8515.177052

Desired Output	Predict	Error
416	153.00028539	263.0
250	153.00029143	97.0
294	153.00028757	141.0
448	153.00028512	295.0
209	153.00029188	56.0
246	153.00029038	93.0
490	153.00028490	337.0
329	153.00028630	176.0
233	153.00029128	80.0
370	153.00028589	217.0
245	153.00029160	92.0
353	153.00028607	200.0
468	153.00028508	315.0
311	153.00028682	158.0
305	153.00028731	152.0
298	153.00028738	145.0
215	153.00029193	62.0
404	153.00028549	251.0
322	153.00028776	169.0
296	153.00028743	143.0
410	153.00028544	257.0
319	153.00028660	166.0
436	153.00028524	283.0
234	153.00029139	81.0
172	153.00021408	19.0
413	153.00028558	260.0
396	153.00028553	243.0
154	153.00017530	1.0
260	153.00029114	107.0
288	153.00028797	135.0
490	153.00028489	337.0

Mean Square Error = 38014.483871

Desired Output	Predict	Error
466	321.03299396	144.97
430	320.39394290	109.61
475	321.29598751	153.7
290	227.32526763	62.67
412	319.38661412	92.61
465	320.96079393	144.04
445	320.13524066	124.86
457	321.01441548	135.99
370	296.87867883	73.12
210	210.09517985	-0.1

322	310.56473896	11.44
250	261.87649759	-11.88
259	266.61447169	-7.61
156	160.82821905	-4.83
484	321.33039680	162.67
284	278.58430654	5.42
335	313.95967126	21.04
356	316.95218952	39.05
270	222.36750865	47.63
153	158.68902038	-5.69
213	210.03425420	2.97
313	309.12129125	3.88
246	228.33550203	17.66
153	158.34403944	-5.34
218	207.70914355	10.29
256	264.21537820	-8.22
441	320.73025944	120.27
385	318.96985259	66.03
178	163.81252361	14.19
357	316.95348172	40.05
303	272.66487890	30.34

Mean Square Error = 5888.290584

Desired Output	Predict	Error
345	153.00359563	192.0
236	153.00360447	83.0
325	153.00359633	172.0
468	153.00359556	315.0
224	153.00360944	71.0
211	153.00360737	58.0
320	153.00359793	167.0
153	153.00360756	-0.0
444	153.00359461	291.0
280	153.00359877	127.0
155	153.00360743	2.0
237	153.00360999	84.0
214	153.00360707	61.0
325	153.00359864	172.0
215	153.00360673	62.0
380	153.00360187	227.0
209	153.00360723	56.0
276	153.00359896	123.0
293	153.00359882	140.0
153	153.00360730	-0.0
412	153.00359845	259.0
215	153.00360691	62.0
300	153.00359838	147.0
328	153.00360389	175.0
271	153.00359931	118.0
460	153.00359610	307.0
244	153.00360288	91.0
360	153.00359448	207.0
291	153.00359890	138.0
253	153.00360056	100.0
234	153.00360334	81.0

Mean Square Error = 24559.225806

Desired Output	Predict	Error
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405	321.50002428	83.5
294	321.50003185	-27.5
456	321.50001119	134.5
243	321.50012901	-78.5
465	321.50001198	143.5
469	321.50001148	147.5
410	321.50001731	88.5
488	321.50001022	166.5
230	321.50016238	-91.5
478	321.50001051	156.5
308	321.50002787	-13.5
300	321.50003207	-21.5
288	321.50003742	-33.5
420	321.50001531	98.5
350	321.50007671	28.5
427	321.50001432	105.5
290	321.50003786	-31.5
270	321.50068728	-51.5
481	321.50001028	159.5
311	321.50002672	-10.5
248	321.50006675	-73.5
486	321.50001029	164.5
164	321.46062798	-157.46
471	321.50001148	149.5
450	321.50001245	128.5
247	321.50008229	-74.5
306	321.50002900	-15.5
328	321.50002690	6.5
294	321.50003267	-27.5
242	321.50014081	-79.5
315	321.50002585	-6.5

Mean Square Error = 9820.166181

Desired Output	Predict	Error
216	321.50646766	-105.51
308	321.50178612	-13.5
462	321.50059472	140.5
303	321.50140072	-18.5
420	321.50112497	98.5
393	321.50070627	71.5
252	321.50237113	-69.5
232	321.50406374	-89.5
483	321.50071224	161.5
305	321.50130887	-16.5
292	321.50146243	-29.5
208	321.50605992	-113.51
397	321.50070356	75.5
427	321.50060383	105.5
470	321.50061044	148.5
232	321.50622303	-89.51
165	321.55784873	-156.56
424	321.50062692	102.5
317	321.50126515	-4.5
417	321.50064360	95.5
489	321.50058651	167.5
319	321.50108523	-2.5
327	321.50179022	5.5
451	321.50055665	129.5

328	321.50099872	6.5
314	321.50377780	-7.5
153	321.56734876	-168.57
309	321.50126121	-12.5
468	321.50126158	146.5
156	321.56116376	-165.56
323	321.50099219	1.5

Mean Square Error = 10084.585884

Desired Output	Predict	Error
209	301.26277774	-92.26
447	316.21092359	130.79
234	305.63102989	-71.63
475	316.67345543	158.33
232	304.91946332	-72.92
247	309.66732247	-62.67
470	316.43161900	153.57
288	307.03203755	-19.03
344	315.07353628	28.93
377	315.39856833	61.6
433	316.04090938	116.96
240	302.95082455	-62.95
310	313.95226246	-3.95
315	314.04423204	0.96
471	316.39902660	154.6
214	301.30674196	-87.31
341	314.92863300	26.07
286	312.75217231	-26.75
455	316.28107300	138.72
249	310.76341110	-61.76
488	316.68673406	171.31
212	301.80581830	-89.81
471	316.43770582	154.56
302	313.07316698	-11.07
333	314.01865236	18.98
241	305.56295140	-64.56
422	315.94346606	106.06
490	316.72103138	173.28
489	316.69806557	172.3
294	313.01194864	-19.01
307	313.85836887	-6.86

Mean Square Error = 9825.747342

Desired Output	Predict	Error
398	489.99978955	-92.0
153	489.99978991	-337.0
235	489.99978969	-255.0
438	489.99978952	-52.0
481	489.99978948	-9.0
208	489.99978977	-282.0
331	489.99978956	-159.0
330	489.99978957	-160.0
470	489.99978949	-20.0
376	489.99978951	-114.0
467	489.99978949	-23.0
454	489.99978950	-36.0
225	489.99978979	-265.0

459	489.99978949	-31.0
340	489.99978966	-150.0
251	489.99978961	-239.0
245	489.99978967	-245.0
351	489.99978951	-139.0
337	489.99978952	-153.0
296	489.99978956	-194.0
208	489.99978977	-282.0
192	489.99979012	-298.0
255	489.99978971	-235.0
381	489.99978951	-109.0
153	489.99978990	-337.0
217	489.99978979	-273.0
221	489.99978979	-269.0
247	489.99978965	-243.0
368	489.99978951	-122.0
390	489.99978950	-100.0
288	489.99978957	-202.0

Mean Square Error = 40235.387097

***** Mean Square Error Average : 16023.393 *****
5525.978806

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.66

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
340	323.76289112	16.24
322	342.36942869	-20.37
490	486.25427291	3.75
390	364.46968865	25.53
231	321.73190390	-90.73
471	480.26272767	-9.26
210	321.66765176	-111.67
256	325.89798683	-69.9
328	322.81476668	5.19
333	355.16496236	-22.16
300	336.03182579	-36.03
213	321.66670142	-108.67
305	339.44523059	-34.45
468	485.31236031	-17.31
210	321.65920398	-111.66
469	478.13537039	-9.14
488	485.92003738	2.08
235	321.81997687	-86.82
303	328.67739026	-25.68
326	337.39655301	-11.4
296	334.08395202	-38.08
292	330.70379582	-38.7
215	321.59069863	-106.59
209	321.64954705	-112.65
381	405.75651533	-24.76
427	449.18520104	-22.19

444	467.05153775	-23.05
401	420.96303352	-19.96
234	321.92884133	-87.93
309	346.85741285	-37.86
259	326.20281674	-67.2

Mean Square Error = 3410.593971

Desired Output	Predict	Error
489	321.50054696	167.5
485	321.50059965	163.5
308	321.50087582	-13.5
224	321.53294155	-97.53
447	321.50053137	125.5
327	321.50073493	5.5
365	321.50065053	43.5
156	321.55657847	-165.56
262	321.50142206	-59.5
209	321.50485120	-112.5
211	321.50478832	-110.5
270	321.51170502	-51.51
467	321.50054171	145.5
208	321.50451272	-113.5
475	321.50053299	153.5
478	321.50053469	156.5
240	321.50321482	-81.5
315	321.50131161	-6.5
328	321.50107506	6.5
214	321.50478341	-107.5
313	321.50089234	-8.5
218	321.50475398	-103.5
472	321.50083155	150.5
293	321.50113638	-28.5
393	321.50058914	71.5
390	321.50059373	68.5
490	321.50056031	168.5
422	321.50053467	100.5
490	321.50056670	168.5
237	321.52647189	-84.53
468	321.50052994	146.5

Mean Square Error = 12276.115016

Desired Output	Predict	Error
153	489.99954571	-337.0
155	489.99954471	-335.0
404	489.99868062	-86.0
245	489.99937259	-245.0
211	489.99939110	-279.0
290	489.99904890	-200.0
232	489.99934406	-258.0
164	489.99954409	-326.0
214	489.99939116	-276.0
284	489.99908008	-206.0
374	489.99876561	-116.0
233	489.99933253	-257.0
238	489.99938419	-252.0
470	489.99855973	-20.0
239	489.99931933	-251.0

331	489.99898245	-159.0
306	489.99895961	-184.0
168	489.99954370	-322.0
215	489.99939629	-275.0
291	489.99904080	-199.0
225	489.99940998	-265.0
153	489.99954567	-337.0
471	489.99853830	-19.0
483	489.99846750	-7.0
490	489.99845167	0.0
410	489.99872613	-80.0
307	489.99897844	-183.0
209	489.99939517	-281.0
459	489.99855334	-31.0
153	489.99954531	-337.0
323	489.99888415	-167.0

Mean Square Error = 52659.290323

Desired Output	Predict	Error
444	320.87367482	123.13
153	160.36066835	-7.36
339	317.27319743	21.73
207	179.14227242	27.86
433	320.68186689	112.32
398	317.05666261	80.94
329	316.25339871	12.75
490	321.33705609	168.66
236	224.05166659	11.95
320	313.78247857	6.22
465	321.00639014	143.99
328	314.78393001	13.22
245	233.73546909	11.26
467	321.09772964	145.9
390	317.66762311	72.33
412	318.83424521	93.17
413	319.66310035	93.34
416	320.38406276	95.62
259	208.64527672	50.35
178	165.46347315	12.54
424	320.32939877	103.67
216	214.76493489	1.24
305	310.75484611	-5.75
265	286.30551430	-21.31
486	321.32756528	164.67
300	240.71635601	59.28
441	320.83088356	120.17
317	314.51093902	2.49
328	316.50896679	11.49
307	311.16953873	-4.17
435	320.74040965	114.26

Mean Square Error = 6797.446129

Desired Output	Predict	Error
319	310.85826785	8.14
276	271.40340749	4.6
448	321.24498133	126.76
314	311.00309983	3.0

333	316.18340567	16.82
356	318.63175163	37.37
390	320.42513687	69.57
385	320.31839636	64.68
481	321.47687045	159.52
230	214.25151358	15.75
370	319.48519133	50.51
490	321.47576065	168.52
308	302.96185875	5.04
380	319.82144146	60.18
315	311.09220853	3.91
466	321.42500233	144.57
311	309.75999198	1.24
471	321.43795006	149.56
235	214.02157267	20.98
427	321.00087098	106.0
244	215.97635266	28.02
428	320.98070635	107.02
315	308.62747522	6.37
445	321.27665747	123.72
351	318.00435777	33.0
368	319.59404900	48.41
465	321.46943437	143.53
286	277.59629487	8.4
405	320.63652881	84.36
297	306.99197729	-9.99
470	321.47776711	148.52

Mean Square Error = 7196.298097

Desired Output	Predict	Error
247	321.85568205	-74.86
246	321.71711671	-75.72
153	321.50002718	-168.5
230	321.57189292	-91.57
232	321.55246755	-89.55
209	321.55692479	-112.56
436	390.28344347	45.72
192	321.50008101	-129.5
165	321.50004146	-156.5
447	446.55879173	0.44
322	329.43031529	-7.43
382	344.45714939	37.54
280	321.57940485	-41.58
294	323.49825312	-29.5
153	321.50002879	-168.5
490	476.35062968	13.65
240	321.60790472	-81.61
397	353.34536093	43.65
232	321.56883639	-89.57
270	321.70288558	-51.7
221	321.52844611	-100.53
451	434.21262387	16.79
156	321.50003710	-165.5
172	321.50004470	-149.5
215	321.54543087	-106.55
357	336.65275701	20.35
290	324.04409178	-34.04
455	419.09795749	35.9
322	329.26276190	-7.26

335		330.14225221		4.86
253		322.38883886		-69.39

Mean Square Error = 7848.216994

Desired Output		Predict		Error
240		321.45372137		-81.45
376		321.50189843		54.5
470		321.50102050		148.5
450		321.50131010		128.5
252		321.49740223		-69.5
231		321.46608820		-90.47
470		321.50103127		148.5
308		321.50089089		-13.5
234		321.46691428		-87.47
215		321.42425698		-106.42
303		321.50070647		-18.5
156		162.19555907		-6.2
213		321.44440767		-108.44
353		321.50164601		31.5
420		321.50130311		98.5
280		321.49914988		-41.5
303		321.50081510		-18.5
260		321.47820103		-61.48
469		321.50104085		147.5
489		321.50060698		167.5
251		321.49732044		-70.5
327		321.50032458		5.5
314		321.48436108		-7.48
405		321.50204381		83.5
214		321.43949719		-107.44
160		162.43141944		-2.43
153		161.29966222		-8.3
471		321.50102808		149.5
341		321.50155481		19.5
396		321.50184357		74.5
317		321.50094528		-4.5

Mean Square Error = 7510.764632

Desired Output		Predict		Error
294		318.26654822		-24.27
478		321.47984737		156.52
154		166.74006835		-12.74
217		237.10308577		-20.1
325		320.65076630		4.35
490		321.48004269		168.52
153		162.33398485		-9.33
208		236.19120177		-28.19
470		321.47230275		148.53
274		312.79538280		-38.8
465		321.45867411		143.54
253		306.70241668		-53.7
319		320.39043365		-1.39
454		321.43774715		132.56
333		320.31051872		12.69
475		321.47914001		153.52
305		319.16313219		-14.16
438		321.39971779		116.6

484	321.47629180	162.52
209	240.17657758	-31.18
349	321.04225396	27.96
456	321.46110037	134.54
230	244.88895361	-14.89
271	312.22097863	-41.22
330	319.69384490	10.31
462	321.45676211	140.54
440	321.43114648	118.57
212	241.23886584	-29.24
247	284.31814962	-37.32
420	321.35858751	98.64
311	319.84291310	-8.84

Mean Square Error = 8105.419465

Desired Output	Predict	Error
298	318.45404089	-20.45
209	234.70622733	-25.71
361	321.05415941	39.95
246	224.06447779	21.94
296	318.11713669	-22.12
250	266.65586371	-16.66
302	317.08733791	-15.09
247	273.13700324	-26.14
433	321.40882306	111.59
288	315.02961650	-27.03
288	269.02942852	18.97
360	321.08726433	38.91
460	321.47734563	138.52
410	321.36984154	88.63
156	166.63826843	-10.64
362	321.07464642	40.93
437	321.44015131	115.56
300	318.69433614	-18.69
457	321.46383685	135.54
268	306.21527031	-38.22
344	320.77747381	23.22
246	268.78437163	-22.78
315	319.70642876	-4.71
370	320.36488684	49.64
238	270.49896903	-32.5
294	317.65889510	-23.66
153	164.06081701	-11.06
412	321.44066526	90.56
325	320.55715323	4.44
488	321.48419481	166.52
245	258.24168563	-13.24

Mean Square Error = 3989.221768

Desired Output	Predict	Error
255	153.00007902	102.0
290	153.00008171	137.0
377	153.00009988	224.0
431	153.00010166	278.0
236	153.00007778	83.0
250	153.00009035	97.0
337	153.00009866	184.0

360		153.00009163		207.0
481		153.00010320		328.0
249		153.00008822		96.0
345		153.00009896		192.0
243		153.00007473		90.0
450		153.00010168		297.0
242		153.00007289		89.0
468		153.00010272		315.0
288		153.00009312		135.0
188		153.00000135		35.0
470		153.00010279		317.0
288		153.00009429		135.0
350		153.00008863		197.0
460		153.00010226		307.0
294		153.00009478		141.0
486		153.00010329		333.0
252		153.00009034		99.0
457		153.00010239		304.0
417		153.00010054		264.0
248		153.00008555		95.0
208		153.00006574		55.0
291		153.00009509		138.0
464		153.00010295		311.0
430		153.00010147		277.0

Mean Square Error = 44684.0

***** Mean Square Error Average : 15447.7366 *****
3410.593971

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.67

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output | Predict | Error

303		153.03391533		149.97
322		153.03329102		168.97
451		153.05181164		297.95
380		153.03281229		226.97
329		153.03652832		175.96
412		153.03289498		258.97
365		153.03793352		211.96
250		153.03288359		96.97
296		153.03398780		142.97
255		153.03253636		101.97
390		153.04152203		236.96
274		153.03330216		120.97
225		153.03251168		71.97
328		153.03571356		174.96
370		153.03826962		216.96
471		153.04832789		317.95
356		153.03892980		202.96
215		153.03251188		61.97
249		153.03286816		95.97
265		153.03316657		111.97

470	153.04542499	316.95
247	153.03272678	93.97
303	153.03429454	149.97
412	153.03410259	258.97
465	153.04931799	311.95
469	153.04930069	315.95
238	153.03252221	84.97
271	153.03325146	117.97
245	153.03252292	91.97
230	153.03260557	76.97
470	153.04873886	316.95

Mean Square Error = 39613.049732

Desired Output	Predict	Error
270	190.72561232	79.27
280	204.38487281	75.62
410	320.33149525	89.67
262	279.26739898	-17.27
337	316.94789471	20.05
216	190.26547135	25.73
470	321.41288812	148.59
469	321.25251051	147.75
246	221.29680483	24.7
357	318.50331928	38.5
154	185.24288690	-31.24
431	320.82129263	110.18
305	310.23826227	-5.24
420	319.82937582	100.17
457	321.04035585	135.96
416	320.47880801	95.52
209	192.87351542	16.13
160	185.28258912	-25.28
288	299.99383029	-11.99
475	321.41602030	153.58
441	320.95434965	120.05
210	194.11697266	15.88
382	319.65294315	62.35
234	198.84080511	35.16
328	315.82863184	12.17
325	315.46138760	9.54
309	312.03392538	-3.03
339	316.78920502	22.21
237	185.60602862	51.39
155	185.25396103	-30.25
247	232.15841741	14.84

Mean Square Error = 5391.236003

Desired Output	Predict	Error
404	489.99991499	-86.0
240	489.99987038	-250.0
413	489.99991414	-77.0
156	489.99983591	-334.0
153	489.99983519	-337.0
455	489.99991951	-35.0
460	489.99991218	-30.0
209	489.99986395	-281.0
208	489.99986466	-282.0

450	489.99991932	-40.0
401	489.99991228	-89.0
405	489.99991224	-85.0
302	489.99988835	-188.0
240	489.99987317	-250.0
490	489.99992342	0.0
381	489.99991081	-109.0
405	489.99989451	-85.0
454	489.99990962	-36.0
327	489.99988858	-163.0
306	489.99989697	-184.0
457	489.99991967	-33.0
320	489.99989588	-170.0
397	489.99991205	-93.0
488	489.99992149	-2.0
212	489.99986432	-278.0
246	489.99987674	-244.0
325	489.99990161	-165.0
294	489.99989237	-196.0
444	489.99991878	-46.0
478	489.99992338	-12.0
470	489.99991990	-20.0

Mean Square Error = 29056.129032

Desired Output	Predict	Error
490	321.43499578	168.57
360	321.41543644	38.58
417	321.42102714	95.58
471	321.42928352	149.57
313	321.39457998	-8.39
153	320.43213549	-167.43
153	320.42873799	-167.43
490	321.43480002	168.57
290	321.21831579	-31.22
214	321.23114341	-107.23
165	320.52291228	-155.52
247	321.32237488	-74.32
422	321.42431581	100.58
333	321.38115128	11.62
410	321.41871889	88.58
335	321.40773954	13.59
270	321.28845672	-51.29
465	321.41692580	143.58
326	321.33799417	4.66
315	321.37320859	-6.37
300	321.38484255	-21.38
420	321.42208427	98.58
215	321.22903999	-106.23
308	321.37219523	-13.37
428	321.40605018	106.59
245	321.30822897	-76.31
362	321.36561179	40.63
344	321.41115767	22.59
305	321.38624039	-16.39
305	321.38736663	-16.39
296	321.38291327	-25.38

Mean Square Error = 8771.039039

Desired Output	Predict	Error
317	321.51558793	-4.52
153	321.68983840	-168.69
211	321.52339085	-110.52
481	321.51295422	159.49
232	321.52219238	-89.52
230	321.52490094	-91.52
209	321.52368779	-112.52
350	321.51895136	28.48
438	321.51444845	116.49
231	321.52225864	-90.52
330	321.51503586	8.48
465	321.51374539	143.49
433	321.51451770	111.49
308	321.51532195	-13.52
236	321.52061079	-85.52
488	321.51275725	166.49
437	321.51440259	115.49
153	321.73890094	-168.74
448	321.51384553	126.49
259	321.53558004	-62.54
215	321.52461470	-106.52
390	321.51576691	68.48
242	321.52169592	-79.52
308	321.51555239	-13.52
284	321.51683675	-37.52
340	321.51600396	18.48
314	321.52033501	-7.52
349	321.51498172	27.49
248	321.51800655	-73.52
294	321.51573452	-27.52
213	321.52342936	-108.52

Mean Square Error = 9381.469165

Desired Output	Predict	Error
361	321.42260299	39.58
156	153.21688751	2.78
294	321.36643801	-27.37
211	320.97066885	-109.97
470	321.46011998	148.54
490	321.46830084	168.53
471	321.45903123	149.54
168	153.41433664	14.59
427	321.44651871	105.55
208	320.96798766	-112.97
240	321.00838831	-81.01
192	156.50420564	35.5
331	321.40218448	9.6
256	321.32351786	-65.32
323	321.40469189	1.6
259	321.32502037	-62.33
440	321.45203903	118.55
484	321.46686522	162.53
260	321.15354244	-61.15
322	321.40655605	0.59
467	321.45921632	145.54
311	321.39741397	-10.4
317	321.40213438	-4.4

315	321.39101855	-6.39
374	321.42636743	52.57
245	321.20378216	-76.2
297	321.20159756	-24.2
340	321.24159308	18.76
293	321.37764165	-28.38
209	320.93475162	-111.93
377	321.42813070	55.57

Mean Square Error = 7061.940452

Desired Output	Predict	Error
244	274.20450005	-30.2
291	332.02929393	-41.03
291	328.84313891	-37.84
489	480.43551516	8.56
489	480.66508673	8.33
238	285.75753001	-47.76
290	328.17421058	-38.17
235	265.23349686	-30.23
153	178.00305737	-25.0
239	290.23679861	-51.24
485	481.31121755	3.69
233	271.11688047	-38.12
315	353.79936063	-38.8
353	388.52087145	-35.52
472	486.38364400	-14.38
276	313.77953160	-37.78
471	466.37853964	4.62
230	271.21694940	-41.22
436	442.81675697	-6.82
288	280.50619273	7.49
231	271.97246014	-40.97
467	460.56188874	6.44
466	457.95066944	8.05
217	250.75195668	-33.75
236	270.15836441	-34.16
481	483.82662332	-2.83
215	250.91209615	-35.91
468	464.61671391	3.38
153	177.96334496	-24.96
290	326.71933997	-36.72
478	485.16527260	-7.17

Mean Square Error = 876.965174

Desired Output	Predict	Error
153	321.52884289	-168.53
303	321.50050356	-18.5
333	321.50011449	11.5
462	321.50007501	140.5
153	321.52644657	-168.53
243	321.50042699	-78.5
232	321.50049987	-89.5
433	321.50007971	111.5
178	321.52006806	-143.52
319	321.50012211	-2.5
460	321.50007176	138.5
435	321.50013646	113.5

224	321.51129504	-97.51
207	321.51406329	-114.51
209	321.50081232	-112.5
459	321.50007537	137.5
319	321.50012509	-2.5
298	321.50015879	-23.5
214	321.50079921	-107.5
393	321.50008922	71.5
370	321.50025558	48.5
447	321.50007706	125.5
246	321.50548242	-75.51
300	321.50045572	-21.5
368	321.50009207	46.5
214	321.50079283	-107.5
427	321.50008162	105.5
209	321.500080692	-112.5
351	321.50009844	29.5
468	321.50007099	146.5
464	321.50007134	142.5

Mean Square Error = 10713.3375

Desired Output	Predict	Error
221	309.84457943	-88.84
234	316.84247956	-82.84
208	313.20657910	-105.21
172	154.81378302	17.19
486	321.38759857	164.61
345	321.04888777	23.95
490	321.39253017	168.61
456	321.35625644	134.64
322	320.80637996	1.19
315	320.86575584	-5.87
430	321.27423568	108.73
390	321.19537296	68.8
188	156.11732496	31.88
288	320.38924331	-32.39
468	321.33682791	146.66
156	153.88246811	2.12
314	319.42509926	-5.43
251	319.66395398	-68.66
300	320.64251602	-20.64
424	321.24890034	102.75
360	319.51712469	40.48
490	321.39400806	168.61
341	321.03089177	19.97
213	312.61001113	-99.61
333	320.68898609	12.31
232	312.30473814	-80.3
253	319.79945397	-66.8
483	321.38463512	161.62
253	319.76023251	-66.76
288	320.38393808	-32.38
376	321.17437216	54.83

Mean Square Error = 7817.043213

Desired Output	Predict	Error
450	412.10280621	37.9

286	263.99798276	22.0
294	270.15134237	23.85
241	214.25976703	26.74
447	457.76244579	-10.76
218	199.04596953	18.95
234	216.14752166	17.85
310	289.25605797	20.74
328	242.04341509	85.96
307	286.41624461	20.58
164	167.92079707	-3.92
327	302.09145044	24.91
307	288.08751756	18.91
252	251.98030480	0.02
385	360.08148408	24.92
156	167.87295378	-11.87
475	471.86018198	3.14
444	432.40118140	11.6
311	290.34422603	20.66
445	403.67867985	41.32
210	206.98372782	3.02
328	314.09359856	13.91
490	479.17256934	10.83
398	337.00259468	61.0
292	267.21367766	24.79
235	214.76312250	20.24
490	479.02604400	10.97
280	261.73575280	18.26
470	470.45100069	-0.45
252	252.77671829	-0.78
486	476.69348383	9.31

Mean Square Error = 705.835058

***** Mean Square Error Average : 11938.8044 *****
705.835058

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.68

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
192	321.49939714	-129.5
331	321.50000000	9.5
215	321.49999997	-106.5
470	321.50000000	148.5
293	321.50000000	-28.5
405	321.50000000	83.5
420	321.50000000	98.5
422	321.50000000	100.5
178	321.49792118	-143.5
382	321.50000000	60.5
339	321.50000000	17.5
451	321.50000000	129.5
239	321.49999999	-82.5
381	321.50000000	59.5

156		321.49353403		-165.49
300		321.50000000		-21.5
471		321.50000000		149.5
490		321.50000000		168.5
438		321.50000000		116.5
360		321.50000000		38.5
291		321.50000000		-30.5
172		321.49710685		-149.5
357		321.50000000		35.5
153		321.46961293		-168.47
465		321.50000000		143.5
207		321.49982325		-114.5
396		321.50000000		74.5
468		321.50000000		146.5
209		321.49999998		-112.5
313		321.50000000		-8.5
488		321.50000000		166.5

Mean Square Error = 12169.430032

Desired Output		Predict		Error
361		489.99988860		-129.0
215		489.99984588		-275.0
303		489.99985081		-187.0
153		489.99981078		-337.0
322		489.99988168		-168.0
471		489.99989633		-19.0
430		489.99989719		-60.0
344		489.99988977		-146.0
209		489.99984624		-281.0
466		489.99989367		-24.0
247		489.99985885		-243.0
165		489.99981303		-325.0
214		489.99984613		-276.0
160		489.99981297		-330.0
469		489.99989734		-21.0
454		489.99988966		-36.0
325		489.99987365		-165.0
455		489.99989807		-35.0
340		489.99985772		-150.0
393		489.99989323		-97.0
356		489.99989175		-134.0
469		489.99989421		-21.0
234		489.99985529		-256.0
489		489.99989485		-1.0
253		489.99986572		-237.0
360		489.99989261		-130.0
214		489.99984600		-276.0
460		489.99989862		-30.0
218		489.99984619		-272.0
410		489.99989523		-80.0
294		489.99987273		-196.0

Mean Square Error = 36727.967742

Desired Output		Predict		Error
305		489.9999947		-185.0
326		489.9999947		-164.0
240		489.9999947		-250.0

255	489.99999947	-235.0
280	489.99999947	-210.0
305	489.99999947	-185.0
230	489.99999947	-260.0
315	489.99999947	-175.0
320	489.99999947	-170.0
240	489.99999947	-250.0
270	489.99999947	-220.0
208	489.99999947	-282.0
447	489.99999947	-43.0
333	489.99999947	-157.0
440	489.99999947	-50.0
435	489.99999947	-55.0
288	489.99999947	-202.0
471	489.99999947	-19.0
225	489.99999947	-265.0
450	489.99999947	-40.0
243	489.99999947	-247.0
370	489.99999947	-120.0
335	489.99999947	-155.0
236	489.99999947	-254.0
233	489.99999947	-257.0
241	489.99999947	-249.0
155	489.99999946	-335.0
153	489.99999946	-337.0
247	489.99999947	-243.0
490	489.99999947	0.0
210	489.99999947	-280.0

Mean Square Error = 44354.064516

Desired Output	Predict	Error
288	153.00766843	134.99
259	153.00755441	105.99
307	153.00781468	153.99
472	153.00939002	318.99
212	153.00716067	58.99
490	153.00932026	336.99
385	153.00822062	231.99
210	153.00714434	56.99
245	153.00737415	91.99
238	153.00735241	84.99
444	153.00857545	290.99
240	153.00722187	86.99
470	153.00915044	316.99
216	153.00712741	62.99
319	153.00791464	165.99
345	153.00802569	191.99
457	153.00836320	303.99
490	153.00933071	336.99
322	153.00769631	168.99
368	153.00817376	214.99
290	153.00770141	136.99
168	153.00651193	14.99
341	153.00801216	187.99
251	153.00752254	97.99
390	153.00823478	236.99
270	153.00672131	116.99
246	153.00653410	92.99
310	153.00782675	156.99

249		153.00759523		95.99
232		153.00723019		78.99
459		153.00873168		305.99

Mean Square Error = 37507.587197

Desired Output		Predict		Error
248		489.99967203		-242.0
478		489.99966397		-12.0
284		489.99966330		-206.0
462		489.99966519		-28.0
211		489.99967687		-279.0
153		489.99970275		-337.0
478		489.99966651		-12.0
298		489.99966054		-192.0
153		489.99970269		-337.0
260		489.99967102		-230.0
328		489.99966156		-162.0
244		489.99967171		-246.0
214		489.99967762		-276.0
236		489.99967199		-254.0
374		489.99966424		-116.0
259		489.99967669		-231.0
428		489.99965544		-62.0
294		489.99966053		-196.0
315		489.99966156		-175.0
276		489.99966227		-214.0
333		489.99965812		-157.0
470		489.99965983		-20.0
328		489.99966197		-162.0
215		489.99967855		-275.0
441		489.99966520		-49.0
213		489.99967760		-277.0
436		489.99966615		-54.0
337		489.99966076		-153.0
294		489.99966222		-196.0
417		489.99966619		-73.0
397		489.99965336		-93.0

Mean Square Error = 38533.290323

Desired Output		Predict		Error
234		489.99997773		-256.0
447		489.99997780		-43.0
164		489.99997775		-326.0
353		489.99997778		-137.0
235		489.99997774		-255.0
297		489.99997769		-193.0
208		489.99997771		-282.0
209		489.99997772		-281.0
215		489.99997772		-275.0
286		489.99997776		-204.0
470		489.99997777		-20.0
481		489.99997770		-9.0
238		489.99997772		-252.0
485		489.99997772		-5.0
424		489.99997781		-66.0
296		489.99997775		-194.0
242		489.99997774		-248.0

317	489.99997776	-173.0
490	489.99997773	0.0
362	489.99997770	-128.0
231	489.99997773	-259.0
217	489.99997773	-273.0
211	489.99997771	-279.0
416	489.99997781	-74.0
490	489.99997773	0.0
431	489.99997781	-59.0
209	489.99997771	-281.0
464	489.99997777	-26.0
376	489.99997781	-114.0
413	489.99997782	-77.0
300	489.99997775	-190.0

Mean Square Error = 37010.290323

Desired Output	Predict	Error
290	306.02289932	-16.02
314	317.35623824	-3.36
404	321.37059460	82.63
481	321.47356452	159.53
314	292.43783235	21.56
315	320.43542604	-5.44
456	321.46039164	134.54
306	319.71407123	-13.71
250	277.70513035	-27.71
351	321.16423301	29.84
234	260.10295893	-26.1
470	321.46291817	148.54
232	255.01553368	-23.02
329	320.87102528	8.13
450	321.41650790	128.58
401	321.39517543	79.6
475	321.47159983	153.53
317	320.51897386	-3.52
274	315.02239478	-41.02
291	318.03312912	-27.03
308	320.03391962	-12.03
471	321.46353423	149.54
468	321.47266035	146.53
325	320.78948677	4.21
288	317.23058692	-29.23
213	244.47554096	-31.48
427	321.40265120	105.6
468	321.46929976	146.53
245	265.20196821	-20.2
488	321.47615714	166.52
292	317.60438196	-25.6

Mean Square Error = 7498.399368

Desired Output	Predict	Error
448	321.45793237	126.54
153	164.11168067	-11.11
412	321.29377407	90.71
350	306.54966780	43.45
307	318.93569850	-11.94
296	315.91994939	-19.92

483	321.48942732	161.51
465	321.47446398	143.53
390	321.05765772	68.94
305	318.15132988	-13.15
380	320.83119488	59.17
412	321.42286426	90.58
365	321.13699579	43.86
154	166.63930091	-12.64
322	320.34277247	1.66
489	321.48858599	167.51
486	321.48906066	164.51
420	321.33291712	98.67
221	235.32381238	-14.32
235	242.96280356	-7.96
405	321.23295004	83.77
484	321.48709823	162.51
340	320.41818704	19.58
323	319.97628459	3.02
156	167.30669691	-11.31
427	321.42022511	105.58
460	321.46630650	138.53
390	321.20539756	68.79
328	283.18957806	44.81
302	317.26332028	-15.26
262	306.02173925	-44.02

Mean Square Error = 7436.077484

Desired Output	Predict	Error
444	489.91253472	-45.91
237	489.91223989	-252.91
156	489.91150905	-333.91
268	489.91250203	-221.91
486	489.91256390	-3.91
315	489.91251776	-174.91
349	489.91251846	-140.91
250	489.91251213	-239.91
410	489.91251806	-79.91
153	489.91135671	-336.91
308	489.91252135	-181.91
330	489.91253382	-159.91
437	489.91252637	-52.91
209	489.91247698	-280.91
153	489.91135995	-336.91
290	489.91251613	-199.91
390	489.91251386	-99.91
256	489.91250454	-233.91
475	489.91260510	-14.91
288	489.91249126	-201.91
457	489.91253747	-32.91
208	489.91248403	-281.91
311	489.91252030	-178.91
370	489.91251179	-119.91
156	489.91154662	-333.91
309	489.91252096	-180.91
294	489.91250802	-195.91
209	489.91247660	-280.91
490	489.91257150	0.09
308	489.91252070	-181.91
188	489.91177367	-301.91

Mean Square Error = 44095.379713

Desired Output	Predict	Error
280	247.24320575	32.76
300	235.02316941	64.98
433	321.17119875	111.83
319	311.88129331	7.12
467	321.43108132	145.57
398	320.43253810	77.57
246	227.04847916	18.95
445	321.31824424	123.68
253	264.36778904	-11.37
230	214.96987545	15.03
303	308.60511313	-5.61
467	321.44588915	145.55
377	319.51102788	57.49
252	266.06485433	-14.06
231	217.40035064	13.6
265	271.53148653	-6.53
311	308.86509180	2.13
232	218.45238372	13.55
328	316.51664581	11.48
470	321.44420399	148.56
303	300.64839884	2.35
224	193.85445190	30.15
490	321.48067643	168.52
271	273.29437647	-2.29
327	313.51763685	13.48
333	316.78238043	16.22
247	226.59532124	20.4
252	264.95019079	-12.95
465	321.47502939	143.52
433	321.20308907	111.8
327	312.44942948	14.55

Mean Square Error = 5550.453229

***** Mean Square Error Average : 27088.294 *****
5550.453229

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.6900000000000001

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
305	303.23465834	1.77
216	206.67832308	9.32
361	318.41566615	42.58
236	216.18786296	19.81
417	320.16929670	96.83
420	320.34594397	99.65
305	302.90357759	2.1
475	321.38541372	153.61

290	288.10938112	1.89
280	239.31309174	40.69
345	316.87028290	28.13
235	211.92004197	23.08
427	320.83789337	106.16
232	212.72749185	19.27
360	318.94306159	41.06
393	320.22972134	72.77
296	300.66011735	-4.66
470	321.37784200	148.62
335	315.53454386	19.47
468	321.32045578	146.68
250	251.25006785	-1.25
238	228.26231996	9.74
215	206.83436834	8.17
478	321.39158758	156.61
211	208.80032972	2.2
246	224.11762243	21.88
396	320.30366154	75.7
362	317.01071879	44.99
231	213.73499346	17.27
329	314.40697481	14.59
327	304.74660777	22.25

Mean Square Error = 4669.2242

Desired Output	Predict	Error
248	321.50730306	-73.51
333	321.50586378	11.49
294	321.50649653	-27.51
153	321.51788065	-168.52
430	321.50582310	108.49
488	321.50651424	166.49
328	321.50783213	6.49
306	321.50601088	-15.51
488	321.50656907	166.49
165	321.51817461	-156.52
450	321.50593952	128.49
413	321.50566416	91.49
247	321.50733561	-74.51
470	321.50616092	148.49
444	321.50597892	122.49
428	321.50599451	106.49
381	321.50576094	59.49
208	321.50954000	-113.51
315	321.50657443	-6.51
489	321.50654494	167.49
308	321.50612690	-13.51
450	321.50596929	128.49
376	321.50568792	54.49
309	321.50609975	-12.51
377	321.50573873	55.49
481	321.50642689	159.49
328	321.50588668	6.49
214	321.50981547	-107.51
298	321.50624838	-23.51
401	321.50565538	79.49
209	321.50992632	-112.51

Mean Square Error = 10628.677539

Desired Output	Predict	Error
288	321.15472614	-33.15
153	194.31357035	-41.31
436	321.45172715	114.55
322	321.31011362	0.69
444	321.45314584	122.55
260	318.00486430	-58.0
210	311.90220474	-101.9
472	321.46375347	150.54
243	318.31228309	-75.31
311	321.32677099	-10.33
294	321.23128387	-27.23
153	194.32068188	-41.32
215	309.92045978	-94.92
385	321.42662153	63.57
253	320.82772403	-67.83
294	321.24315854	-27.24
300	321.26725014	-21.27
290	313.39483344	-23.39
211	312.61167978	-101.61
447	321.45437440	125.55
265	320.93675439	-55.94
247	319.88826563	-72.89
303	321.27944050	-18.28
410	321.42653823	88.57
245	315.19790260	-70.2
307	321.28036007	-14.28
486	321.46700087	164.53
241	317.34734613	-76.35
209	311.54217368	-102.54
292	321.17862820	-29.18
349	321.39526680	27.6

Mean Square Error = 6059.485284

Desired Output	Predict	Error
490	321.47554694	168.52
471	321.43720837	149.56
244	218.50912487	25.49
317	313.05452170	3.95
268	266.50073331	1.5
154	161.04253078	-7.04
319	311.03370416	7.97
356	318.41171080	37.59
340	261.67670477	78.32
466	321.41845849	144.58
339	315.98242557	23.02
240	223.08856933	16.91
208	213.79858033	-5.8
344	317.07722205	26.92
153	159.48032246	-6.48
239	228.76016276	10.24
242	216.42335193	25.58
350	275.46667509	74.53
445	321.23098323	123.77
251	259.72835299	-8.73
280	273.50090527	6.5
192	173.65387250	18.35

310	307.80423040	2.2
457	321.35620384	135.64
234	215.95060245	18.05
370	314.85563664	55.14
490	321.47631481	168.52
490	321.47705043	168.52
297	300.30309493	-3.3
467	321.42532469	145.57
270	227.91763948	42.08

Mean Square Error = 6620.711558

Desired Output	Predict	Error
221	153.00000584	68.0
313	153.00000915	160.0
284	153.00000833	131.0
308	153.00000917	155.0
245	153.00000696	92.0
325	153.00000950	172.0
433	153.00000951	280.0
478	153.00001097	325.0
250	153.00000612	97.0
464	153.00001130	311.0
215	153.00000588	62.0
234	153.00000675	81.0
314	153.00000665	161.0
475	153.00001096	322.0
270	153.00000464	117.0
404	153.00001060	251.0
437	153.00001086	284.0
454	153.00001012	301.0
455	153.00001099	302.0
296	153.00000876	143.0
424	153.00001071	271.0
311	153.00000910	158.0
490	153.00001146	337.0
447	153.00000922	294.0
370	153.00001003	217.0
327	153.00000966	174.0
240	153.00000602	87.0
468	153.00001130	315.0
288	153.00000828	135.0
153	153.00000341	-0.0
276	153.00000819	123.0

Mean Square Error = 45649.870968

Desired Output	Predict	Error
405	321.29000826	83.71
288	321.14271403	-33.14
470	321.42683478	148.57
209	318.69051321	-109.69
246	269.59150142	-23.59
390	321.21454700	68.79
231	319.77741273	-88.78
235	318.93751974	-83.94
410	321.38827546	88.61
490	321.44969100	168.55
456	321.43476807	134.57

333	321.24860853	11.75
238	319.06823552	-81.07
207	170.53550077	36.46
420	321.32989434	98.67
290	321.14864015	-31.15
328	321.26285082	6.74
291	321.18451063	-30.18
317	321.28443689	-4.28
293	321.19521929	-28.2
341	321.32372376	19.68
234	319.77006568	-85.77
440	321.41381924	118.59
230	319.76028697	-89.76
465	321.42326589	143.58
225	318.09419077	-93.09
213	318.84180429	-105.84
390	321.37404590	68.63
397	321.37388983	75.63
259	321.01300073	-62.01
178	156.02243924	21.98

Mean Square Error = 7174.778794

Desired Output	Predict	Error
451	489.99978007	-39.0
486	489.99979292	-4.0
412	489.99976177	-78.0
374	489.99976480	-116.0
433	489.99977315	-57.0
467	489.99978192	-23.0
412	489.99977619	-78.0
252	489.99974742	-238.0
471	489.99978359	-19.0
253	489.99974719	-237.0
255	489.99972911	-235.0
320	489.99975566	-170.0
353	489.99976621	-137.0
214	489.99972020	-276.0
448	489.99977553	-42.0
247	489.99973724	-243.0
308	489.99975614	-182.0
390	489.99976478	-100.0
256	489.99974712	-234.0
168	489.99964442	-322.0
214	489.99971924	-276.0
286	489.99974979	-204.0
315	489.99975908	-175.0
246	489.99973342	-244.0
469	489.99978310	-21.0
422	489.99977181	-68.0
337	489.99976325	-153.0
319	489.99976155	-171.0
315	489.99975511	-175.0
471	489.99978271	-19.0
368	489.99976589	-122.0

Mean Square Error = 28938.645161

Desired Output	Predict	Error
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262	321.50560586	-59.51
490	321.50699136	168.49
230	321.50884940	-91.51
172	321.54014846	-149.54
291	321.50540947	-30.51
153	321.54586636	-168.55
218	321.50883010	-103.51
232	321.50704961	-89.51
236	321.50736737	-85.51
209	321.50907296	-112.51
210	321.50902926	-111.51
230	321.50717077	-91.51
288	321.50723797	-33.51
471	321.50593556	149.49
483	321.50669569	161.49
156	321.54371482	-165.54
382	321.50499141	60.5
233	321.50696528	-88.51
303	321.50817223	-18.51
490	321.50698859	168.49
252	321.50591559	-69.51
441	321.50539811	119.49
303	321.50530799	-18.51
470	321.50592081	148.49
224	321.53036151	-97.53
156	321.54308144	-165.54
325	321.50530481	3.49
156	321.54335868	-165.54
322	321.50508029	0.49
435	321.50642864	113.49
237	321.52675009	-84.53

Mean Square Error = 12727.374935

Desired Output	Predict	Error
164	162.88687086	1.11
245	321.47197269	-76.47
188	163.34476551	24.66
213	321.41490631	-108.41
153	162.75011708	-9.75
427	321.49692476	105.5
459	321.49716852	137.5
156	162.83966257	-6.84
484	321.49733839	162.5
360	321.48700554	38.51
208	321.41079833	-113.41
398	321.49450287	76.51
485	321.49732889	163.5
322	321.49288411	0.51
357	321.49614383	35.5
307	321.49416036	-14.49
465	321.49700627	143.5
155	162.81099294	-7.81
405	321.49665333	83.5
314	321.47284595	-7.47
274	321.49064814	-47.49
209	321.40750079	-112.41
465	321.49719418	143.5
323	321.49537296	1.5
302	321.49227711	-19.49

438		321.49639318		116.5
470		321.49714344		148.5
271		321.49034641		-50.49
416		321.49689438		94.5
328		321.49425362		6.51
217		321.38319234		-104.38

Mean Square Error = 7896.264619

Desired Output		Predict		Error
249		301.14371710		-52.14
351		320.92468235		30.08
259		205.97233898		53.03
462		321.43991233		140.56
457		321.43275272		135.57
380		320.77165288		59.23
340		320.39008683		19.61
212		235.43518216		-23.44
431		321.38224096		109.62
215		226.83214161		-11.83
153		195.42002526		-42.42
469		321.44949631		147.55
326		319.40193172		6.6
315		320.16305745		-5.16
160		195.42379435		-35.42
331		320.53650410		10.46
365		321.08118585		43.92
390		321.24271283		68.76
300		318.48720301		-18.49
481		321.47150018		159.53
490		321.47080545		168.53
209		230.90604799		-21.91
305		319.24667926		-14.25
294		317.37299603		-23.37
153		195.42041274		-42.42
240		254.19269464		-14.19
232		254.95220745		-22.95
330		320.04514441		9.95
300		288.90791063		11.09
470		321.45050009		148.55
460		321.43151245		138.57

Mean Square Error = 6202.377297

***** Mean Square Error Average : 13656.741 *****
4669.2242

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.7000000000000001

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
286		278.41079013		7.59
327		312.84623939		14.15

357	319.13906845	37.86
328	317.74729894	10.25
390	320.50892106	69.49
376	319.93063309	56.07
377	319.45663783	57.54
433	321.19245102	111.81
303	299.71345758	3.29
325	315.61056234	9.39
440	321.27675248	118.72
153	158.61255250	-5.61
311	308.26435500	2.74
259	266.44923744	-7.45
294	304.92477842	-10.92
268	267.77292923	0.23
230	211.31988887	18.68
251	261.27264250	-10.27
224	193.49060666	30.51
303	308.62251504	-5.62
468	321.46315576	146.54
481	321.48681785	159.51
240	213.93093678	26.07
271	268.87862910	2.12
444	321.27451604	122.73
437	321.25240271	115.75
412	320.89213960	91.11
396	320.58884894	75.41
427	321.04230203	105.96
154	160.04618705	-6.05
327	313.10224786	13.9

Mean Square Error = 4610.086516

Desired Output	Predict	Error
153	159.31546960	-6.32
444	321.30025338	122.7
420	320.66636627	99.33
308	306.19720144	1.8
450	321.30002583	128.7
315	312.10825762	2.89
213	211.80221401	1.2
467	321.43574453	145.56
207	182.66486552	24.34
360	299.57481055	60.43
297	301.04004284	-4.04
232	214.56197978	17.44
457	321.38276570	135.62
288	292.68375237	-4.68
288	225.33650043	62.66
460	321.39763536	138.6
405	320.45407602	84.55
246	205.64440954	40.36
483	321.48355672	161.52
441	321.27767475	119.72
232	213.61386414	18.39
156	160.72450290	-4.72
231	213.77264243	17.23
237	199.39144056	37.61
230	213.92170491	16.08
308	303.26630929	4.73
374	319.43464532	54.57

212	211.99553175	0.0
153	159.29775830	-6.3
153	159.11414195	-6.11
486	321.47462709	164.53

Mean Square Error = 6145.767055

Desired Output	Predict	Error
333	321.49999962	11.5
339	321.49999964	17.5
156	317.97107936	-161.97
470	321.49999985	148.5
311	321.49999953	-10.5
215	321.49998618	-106.5
326	321.49999901	4.5
325	321.49999954	3.5
368	321.49999970	46.5
490	321.49999988	168.5
234	321.49999309	-87.5
168	318.94905785	-150.95
370	321.49999898	48.5
361	321.49999968	39.5
300	321.49999940	-21.5
445	321.49999976	123.5
242	321.49999443	-79.5
315	321.49999954	-6.5
280	321.49999906	-41.5
270	321.49984512	-51.5
259	321.49908209	-62.5
236	321.49999606	-85.5
488	321.49999988	166.5
330	321.49999948	8.5
382	321.49999973	60.5
340	321.49999925	18.5
248	321.49999837	-73.5
246	321.49999713	-75.5
245	321.49999640	-76.5
293	321.49999938	-28.5
427	321.49999979	105.5

Mean Square Error = 7209.078497

Desired Output	Predict	Error
390	321.27739482	68.72
235	245.79437207	-10.79
390	321.18941408	68.81
230	245.47440981	-15.47
469	321.48131461	147.52
274	310.52842685	-36.53
490	321.49110707	168.51
317	320.35477159	-3.35
314	283.19405088	30.81
215	236.43654744	-21.44
307	319.32713281	-12.33
160	168.36839465	-8.37
308	319.63523589	-11.64
393	321.36983381	71.63
246	274.10622712	-28.11
390	321.34779902	68.65

317	320.32488701	-3.32
470	321.48220733	148.52
433	321.41546420	111.58
290	317.42894447	-27.43
430	321.43612369	108.56
156	167.59632586	-11.6
462	321.47704211	140.52
225	235.54124321	-10.54
240	244.81112306	-4.81
288	314.31154618	-26.31
307	319.47731482	-12.48
221	234.08246973	-13.08
245	254.27449871	-9.27
243	248.64855061	-5.65
303	318.15595382	-15.16

Mean Square Error = 4585.650635

Desired Output	Predict	Error
235	298.89472717	-63.89
214	295.54218155	-81.54
165	157.75922493	7.24
249	317.04718503	-68.05
300	311.61512108	-11.62
211	296.58425610	-85.58
417	321.30589329	95.69
410	321.33286616	88.67
300	320.31502181	-20.32
470	321.41993236	148.58
218	290.57016093	-72.57
490	321.46247542	168.54
333	320.34171711	12.66
305	320.38167819	-15.38
155	157.64605001	-2.65
209	294.70456198	-85.7
247	315.22077147	-68.22
328	320.52591938	7.47
455	321.41370977	133.59
213	295.84982259	-82.85
209	294.56052053	-85.56
488	321.46166719	166.54
208	298.53376199	-90.53
481	321.45750713	159.54
448	321.41914140	126.58
420	321.03021649	98.97
178	157.91592667	20.08
214	294.92823262	-80.93
335	321.02205354	13.98
398	320.59309748	77.41
345	321.04291862	23.96

Mean Square Error = 7788.981732

Desired Output	Predict	Error
306	321.20481441	-15.2
291	321.19414213	-30.19
322	321.20692004	0.79
353	321.22045008	31.78
370	321.22273976	48.78

451	321.23302784	129.77
210	320.93977492	-110.94
250	321.15901332	-71.16
298	321.20060088	-23.2
331	321.20525368	9.79
208	320.96858528	-112.97
172	159.51559644	12.48
438	321.22398527	116.78
475	321.23381591	153.77
233	321.03021701	-88.03
153	159.05045826	-6.05
478	321.23389282	156.77
470	321.23374395	148.77
381	321.22519318	59.77
340	321.10695857	18.89
153	159.04739680	-6.05
302	321.18894299	-19.19
239	321.05616080	-82.06
341	321.21806788	19.78
153	159.05577465	-6.06
310	321.20388708	-11.2
314	321.14225057	-7.14
454	321.22818937	132.77
253	321.16259234	-68.16
401	321.22576854	79.77
294	321.19394283	-27.19

Mean Square Error = 5971.706171

Desired Output	Predict	Error
247	317.26220518	-70.26
164	166.16382347	-2.16
214	305.58076022	-91.58
319	320.91988999	-1.92
315	320.78611539	-5.79
328	317.84846196	10.15
385	321.22783100	63.77
467	321.35039209	145.65
459	321.34252033	137.66
428	321.17396321	106.83
209	306.01690773	-97.02
365	321.17479289	43.83
245	316.35363753	-71.35
447	321.33065089	125.67
305	320.65582804	-15.66
410	321.24250315	88.76
484	321.37699917	162.62
262	319.73246391	-57.73
416	321.28904470	94.71
471	321.35510694	149.64
216	305.85253020	-89.85
319	320.90610402	-1.91
290	320.23123396	-30.23
309	320.72900833	-11.73
485	321.37919963	163.62
412	321.11574558	90.88
435	321.20429958	113.8
470	321.34964499	148.65
466	321.33777264	144.66
234	314.16833850	-80.17

276

| 320.06164403 | -44.06

Mean Square Error = 9003.039781

Desired Output	Predict	Error
153	199.29501313	-46.3
232	256.09942309	-24.1
294	318.89606210	-24.9
465	321.46908315	143.53
252	313.23558493	-61.24
344	320.93621498	23.06
322	319.90477626	2.1
356	321.05129622	34.95
284	316.62846462	-32.63
490	321.47705436	168.52
469	321.44978604	147.55
471	321.45274065	149.55
350	313.73222286	36.27
431	321.37769438	109.62
468	321.47597620	146.52
320	320.54377695	-0.54
315	319.68785279	-4.69
397	321.31343833	75.69
436	321.38769729	114.61
490	321.47689856	168.52
465	321.43641593	143.56
351	320.99878940	30.0
209	233.15490523	-24.15
489	321.47369811	167.53
471	321.45331322	149.55
238	287.69470138	-49.69
296	319.70457207	-23.7
292	317.76361368	-25.76
250	279.89193850	-29.89
489	321.47589654	167.52
156	199.37313250	-43.37

Mean Square Error = 9425.646887

Desired Output	Predict	Error
472	489.99911237	-18.0
329	489.99910967	-161.0
153	489.99907229	-337.0
234	489.99910626	-256.0
208	489.99910417	-282.0
475	489.99911247	-15.0
211	489.99910409	-279.0
490	489.99911218	0.0
260	489.99910581	-230.0
238	489.99910449	-252.0
244	489.99910645	-246.0
362	489.99910899	-128.0
270	489.99910602	-220.0
380	489.99910880	-110.0
328	489.99910972	-162.0
333	489.99910923	-157.0
210	489.99910403	-280.0
404	489.99911044	-86.0
456	489.99911144	-34.0

490	489.99911222	0.0
255	489.99910552	-235.0
323	489.99910956	-167.0
209	489.99910400	-281.0
217	489.99910387	-273.0
188	489.99907903	-302.0
240	489.99910632	-250.0
424	489.99911054	-66.0
305	489.99910918	-185.0
280	489.99910089	-210.0
405	489.99911039	-85.0
470	489.99911150	-20.0

Mean Square Error = 39845.258065

Desired Output	Predict	Error
192	321.49996888	-129.5
209	321.49999999	-112.5
478	321.50000000	156.5
460	321.50000000	138.5
490	321.50000000	168.5
247	321.50000000	-74.5
265	321.50000000	-56.5
465	321.50000000	143.5
322	321.50000000	0.5
349	321.50000000	27.5
486	321.50000000	164.5
422	321.50000000	100.5
337	321.50000000	15.5
253	321.50000000	-68.5
288	321.50000000	-33.5
290	321.49999999	-31.5
464	321.50000000	142.5
313	321.50000000	-8.5
215	321.49999999	-106.5
256	321.50000000	-65.5
360	321.50000000	38.5
291	321.50000000	-30.5
241	321.50000000	-80.5
413	321.50000000	91.5
471	321.50000000	149.5
468	321.50000000	146.5
450	321.50000000	128.5
231	321.50000000	-90.5
294	321.50000000	-27.5
457	321.50000000	135.5
447	321.50000000	125.5

Mean Square Error = 10724.185484

***** Mean Square Error Average : 10530.9401 *****
4585.650635

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.71

Momentum rate : 0.07

Activiaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
153	321.57123613	-168.57
440	321.49132744	118.51
450	321.49035856	128.51
490	321.49223653	168.51
236	321.48098939	-85.48
153	321.57677761	-168.58
435	321.48918856	113.51
284	321.48579257	-37.49
240	321.47945119	-81.48
230	321.47998111	-91.48
331	321.48724096	9.51
328	321.48873594	6.51
410	321.49074354	88.51
475	321.49206497	153.51
489	321.49220858	167.51
404	321.49064240	82.51
447	321.49007125	125.51
215	321.47883570	-106.48
250	321.48388280	-71.48
385	321.49020328	63.51
172	321.52864135	-149.53
238	321.48118634	-83.48
472	321.49172104	150.51
340	321.48536844	18.51
231	321.48000474	-90.48
450	321.49141181	128.51
245	321.48124801	-76.48
209	321.47906690	-112.48
259	321.48701933	-62.49
308	321.48777465	-13.49
438	321.48989010	116.51

Mean Square Error = 11877.930248

Desired Output	Predict	Error
292	290.94530829	1.05
370	315.26289162	54.74
164	184.65282983	-20.65
390	319.68957873	70.31
333	316.00478431	17.0
448	321.03642912	126.96
240	199.52379035	40.48
239	223.34984936	15.65
365	318.71417002	46.29
457	321.18866050	135.81
454	321.13496410	132.87
303	309.66228599	-6.66
470	321.31745831	148.68
467	321.28352993	145.72
288	299.76669520	-11.77
349	317.48609275	31.51
396	319.89679756	76.1
209	193.18759709	15.81
153	184.41820492	-31.42
208	192.88238719	15.12
253	271.44681002	-18.45

433	320.79653741	112.2
490	321.43807472	168.56
486	321.41088684	164.59
209	193.79460031	15.21
325	316.53612608	8.46
300	309.91807988	-9.92
252	273.25848066	-21.26
249	241.98788048	7.01
488	321.41514685	166.58
345	317.08918639	27.91

Mean Square Error = 6920.489197

Desired Output	Predict	Error
362	321.50416120	40.5
490	321.50230713	168.5
327	321.50367029	5.5
333	321.50353358	11.5
251	321.50447526	-70.5
235	321.50600731	-86.51
410	321.50245049	88.5
468	321.50234576	146.5
323	321.50280391	1.5
471	321.50237083	149.5
153	321.53828714	-168.54
234	321.50612166	-87.51
253	321.50416740	-68.5
213	321.50875043	-108.51
311	321.50295246	-10.5
360	321.50251508	38.5
243	321.50576700	-78.51
307	321.50313926	-14.5
319	321.50289933	-2.5
315	321.50310250	-6.5
216	321.50874401	-105.51
309	321.50310034	-12.5
382	321.50246099	60.5
374	321.50255158	52.5
325	321.50283096	3.5
305	321.50322646	-16.5
311	321.50305615	-10.5
317	321.50293675	-4.5
308	321.50314351	-13.5
248	321.50489846	-73.5
314	321.50588726	-7.51

Mean Square Error = 5761.377813

Desired Output	Predict	Error
298	321.49981470	-23.5
470	321.49996488	148.5
489	321.49997568	167.5
153	195.66733753	-42.67
288	321.49975262	-33.5
297	321.49912176	-24.5
210	321.49726477	-111.5
305	321.49981443	-16.5
215	321.49667163	-106.5
329	321.49988547	7.5

156	222.82613794	-66.83
468	321.49997124	146.5
475	321.49997460	153.5
485	321.49997528	163.5
168	248.99838971	-81.0
300	321.49895410	-21.5
462	321.49996424	140.5
212	321.49734205	-109.5
466	321.49996033	144.5
237	320.49325087	-83.49
208	321.49719331	-113.5
215	321.49689205	-106.5
305	321.49980898	-16.5
265	321.49964047	-56.5
302	321.49976233	-19.5
427	321.49995030	105.5
368	321.49992234	46.5
420	321.49994005	98.5
465	321.49995773	143.5
335	321.49989184	13.5
214	321.49710697	-107.5

Mean Square Error = 9823.526061

Desired Output	Predict	Error
490	321.47543195	168.52
341	317.63074339	23.37
417	320.47100649	96.53
232	214.00338695	18.0
234	215.22995458	18.77
232	213.92382761	18.08
290	292.18714394	-2.19
244	215.65357086	28.35
470	321.43511089	148.56
428	320.99301145	107.01
351	318.08840003	32.91
436	321.21115397	114.79
245	219.39837016	25.6
444	321.29011184	122.71
247	229.09426520	17.91
470	321.48182017	148.52
322	316.14694795	5.85
430	321.09938797	108.9
293	300.35363607	-7.35
214	211.12896423	2.87
390	320.46268228	69.54
240	223.30342110	16.7
471	321.44132392	149.56
230	213.93311154	16.07
490	321.47828247	168.52
276	271.61326591	4.39
291	294.34832698	-3.35
250	225.56977907	24.43
470	321.45353048	148.55
413	320.21528982	92.78
456	321.41433642	134.59

Mean Square Error = 7853.575339

Desired Output	Predict	Error
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221	489.97826948	-268.98
401	489.97848899	-88.98
245	489.97830520	-244.98
350	489.97838078	-139.98
471	489.97850273	-18.98
361	489.97848106	-128.98
290	489.97825269	-199.98
445	489.97848317	-44.98
333	489.97844315	-156.98
208	489.97829164	-281.98
271	489.97842688	-218.98
469	489.97849963	-20.98
207	489.97713505	-282.98
280	489.97817522	-209.98
427	489.97849575	-62.98
315	489.97846279	-174.98
259	489.97841934	-230.98
214	489.97828356	-275.98
322	489.97843780	-167.98
153	489.97608324	-336.98
188	489.97678915	-301.98
294	489.97844672	-195.98
467	489.97849855	-22.98
178	489.97670969	-311.98
424	489.97849485	-65.98
322	489.97846792	-167.98
156	489.97646263	-333.98
317	489.97845627	-172.98
370	489.97848281	-119.98
154	489.97632294	-335.98
405	489.97845619	-84.98

Mean Square Error = 43144.325561

Desired Output	Predict	Error
478	153.12227723	324.88
294	153.12217838	140.88
280	153.12216593	126.88
376	153.12226398	222.88
360	153.12215204	206.88
390	153.12216155	236.88
464	153.12231148	310.88
153	153.12405092	-0.12
326	153.12215844	172.88
246	153.12215363	92.88
236	153.12217738	82.88
153	153.12406330	-0.12
431	153.12229273	277.88
390	153.12217654	236.88
288	153.12216668	134.88
156	153.12364911	2.88
412	153.12221334	258.88
328	153.12218141	174.88
486	153.12230462	332.88
303	153.12219085	149.88
460	153.12231049	306.88
246	153.12256199	92.88
344	153.12224424	190.88
294	153.12217039	140.88

300	153.12218724	146.88
356	153.12225294	202.88
471	153.12229600	317.88
469	153.12230194	315.88
470	153.12230128	316.88
397	153.12226099	243.88
209	153.12222482	55.88

Mean Square Error = 45166.900852

Desired Output	Predict	Error
460	321.47921473	138.52
209	235.54196267	-26.54
230	236.65664523	-6.66
405	321.36721523	83.63
381	321.27860306	59.72
270	247.21401770	22.79
238	240.43845984	-2.44
377	321.17221497	55.83
262	306.29132976	-44.29
242	243.63768629	-1.64
246	263.91860253	-17.92
288	312.43218783	-24.43
241	242.43528619	-1.44
490	321.49563088	168.5
422	321.41818453	100.58
211	237.84820606	-26.85
270	269.46585726	0.53
455	321.47553793	133.52
260	271.89878931	-11.9
290	316.23005251	-26.23
165	169.55700437	-4.56
433	321.41700467	111.58
256	303.56673408	-47.57
353	321.03519730	31.96
153	165.72176189	-12.72
330	319.79416309	10.21
340	303.66052211	36.34
234	245.29107634	-11.29
437	321.45303436	115.55
233	242.40413242	-9.4
468	321.49516897	146.5

Mean Square Error = 4751.044271

Desired Output	Predict	Error
315	309.16537188	5.83
215	212.84183119	2.16
314	232.11909400	81.88
457	321.39461041	135.61
393	320.61343062	72.39
481	321.47410685	159.53
465	321.47945229	143.52
247	228.30350455	18.7
459	321.40506733	137.59
209	213.44748187	-4.45
235	215.04418280	19.96
225	212.43085642	12.57
327	312.82804024	14.17

420	320.88115835	99.12
156	160.91014903	-4.91
310	308.06296409	1.94
328	238.20254110	89.8
296	305.94986293	-9.95
380	319.24690314	60.75
339	315.94393141	23.06
483	321.48589328	161.51
416	320.90519378	95.09
303	307.17038321	-4.17
232	215.66280855	16.34
213	213.80296635	-0.8
308	304.69836748	3.3
447	321.33919849	125.66
160	161.40549568	-1.41
252	260.72249009	-8.72
441	321.28844982	119.71
490	321.48557277	168.51

Mean Square Error = 6862.418197

Desired Output	Predict	Error
478	321.47163926	156.53
286	317.17997228	-31.18
484	321.47454600	162.53
490	321.48024950	168.52
320	320.60731162	-0.61
481	321.48190480	159.52
291	319.18517677	-28.19
210	237.29457435	-27.29
451	321.43938053	129.56
488	321.47989567	166.52
155	197.13729690	-42.14
398	321.13046168	76.87
306	319.79694796	-13.8
294	318.40140256	-24.4
274	315.83020729	-41.83
307	320.06989746	-13.07
319	320.45050070	-1.45
296	318.88111140	-22.88
268	315.27359359	-47.27
211	240.05964157	-29.06
218	219.22633658	-1.23
224	197.40734310	26.59
465	321.44941086	143.55
217	220.75808048	-3.76
315	319.90877103	-4.91
313	320.44228628	-7.44
328	320.80864376	7.19
337	320.90169898	16.1
412	321.26475214	90.74
247	294.60664874	-47.61
444	321.41097399	122.59

Mean Square Error = 6872.066184

***** Mean Square Error Average : 14903.3654 *****
4751.044271

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.72

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
308	318.97466872	-10.97
490	321.49067859	168.51
209	238.60518694	-29.61
340	300.93814524	39.06
284	309.25378170	-25.25
270	243.45013281	26.55
416	321.38973080	94.61
315	319.43020202	-4.43
328	320.52377825	7.48
420	321.35610451	98.64
459	321.47303540	137.53
305	318.06319071	-13.06
225	236.01901622	-11.02
412	321.44628273	90.55
325	320.35673732	4.64
230	243.10003626	-13.1
390	321.29835912	68.7
464	321.48410807	142.52
351	320.87722477	30.12
153	163.77290014	-10.77
215	236.73116686	-21.73
306	317.80696964	-11.81
328	282.40509864	45.59
457	321.46640996	135.53
292	312.19035999	-20.19
468	321.48015953	146.52
300	318.76807187	-18.77
357	321.05393374	35.95
471	321.48261170	149.52
465	321.48799279	143.51
471	321.48257539	149.52

Mean Square Error = 6921.215297

Desired Output	Predict	Error
215	321.50242607	-106.5
435	321.50133224	113.5
339	321.50063616	17.5
445	321.50073093	123.5
209	321.50250931	-112.5
252	321.50143702	-69.5
365	321.50062689	43.5
470	321.50059721	148.5
469	321.50058930	147.5
211	321.50251754	-110.5
341	321.50072366	19.5
404	321.50050713	82.5
231	321.50174076	-90.5
153	321.50735483	-168.51
397	321.50052615	75.5

236	321.50187046	-85.5
466	321.50064700	144.5
153	321.50701200	-168.51
489	321.50080035	167.5
250	321.50213164	-71.5
486	321.50069895	164.5
246	321.50163328	-75.5
153	321.50747695	-168.51
451	321.50058146	129.5
327	321.50072187	5.5
156	321.50691681	-165.51
456	321.50058104	134.5
333	321.50075764	11.5
431	321.50049618	109.5
440	321.50050115	118.5
322	321.50082475	0.5

Mean Square Error = 13032.682916

Desired Output	Predict	Error
207	321.52169150	-114.52
172	321.53073677	-149.53
326	321.50017982	4.5
251	321.50018945	-70.5
249	321.50019829	-72.5
410	321.50010602	88.5
291	321.50014783	-30.5
247	321.50025042	-74.5
262	321.50018397	-59.5
154	321.52530325	-167.53
437	321.50009479	115.5
247	321.50024475	-74.5
305	321.50013604	-16.5
447	321.50009724	125.5
315	321.50012770	-6.5
288	321.50030730	-33.5
427	321.50009618	105.5
280	321.50017075	-41.5
208	321.50045508	-113.5
243	321.50032966	-78.5
296	321.50013998	-25.5
290	321.50015212	-31.5
156	321.52906353	-165.53
235	321.50047532	-86.5
469	321.50009130	147.5
231	321.50038831	-90.5
310	321.50013630	-11.5
178	321.53047232	-143.53
245	321.50027913	-76.5
164	321.52964797	-157.53
330	321.50013700	8.5

Mean Square Error = 8953.527255

Desired Output	Predict	Error
302	325.36890578	-23.37
240	321.58167665	-81.58
483	476.18087045	6.82
385	349.82370988	35.18

405	341.58556299	63.41
390	333.33969092	56.66
465	434.89862763	30.1
485	475.30059161	9.7
313	329.08152598	-16.08
488	472.62896039	15.37
213	321.55797220	-108.56
393	354.50890105	38.49
268	322.74592359	-54.75
252	322.72358617	-70.72
328	333.20283918	-5.2
300	325.12645613	-25.13
288	324.60848372	-36.61
233	321.56944273	-88.57
360	338.81730723	21.18
438	367.00554813	70.99
470	476.76475314	-6.76
376	343.96898387	32.03
490	476.17526709	13.82
294	326.12402368	-32.12
362	335.06269516	26.94
303	323.55083994	-20.55
230	321.56653385	-91.57
247	321.98277387	-74.98
238	321.56088585	-83.56
260	321.73024814	-61.73
240	321.57422816	-81.57

Mean Square Error = 2861.450135

Desired Output	Predict	Error
340	320.57702054	19.42
382	320.93985047	61.06
210	317.89604610	-107.9
156	160.62450269	-4.62
255	319.22082167	-64.22
322	320.78756985	1.21
319	320.82888978	-1.83
236	319.63298607	-83.63
208	318.21618316	-110.22
323	320.84138036	2.16
270	319.50079621	-49.5
314	320.28761228	-6.29
486	321.03187272	164.97
311	320.80252052	-9.8
467	321.00143034	146.0
433	320.91312620	112.09
300	319.63189564	-19.63
398	320.78063978	77.22
325	320.78798363	4.21
256	320.46192643	-64.46
217	317.15200956	-100.15
232	319.06265708	-87.06
216	317.26944208	-101.27
345	320.88293572	24.12
353	320.89408032	32.11
188	160.75539185	27.24
317	320.77974318	-3.78
311	320.79769797	-9.8
305	320.73340281	-15.73

368		320.92571540		47.07
410		320.96381318		89.04

Mean Square Error = 4966.73941

Desired Output		Predict		Error
153		321.53065034		-168.53
490		321.50007231		168.5
209		321.50148830		-112.5
457		321.50008699		135.5
232		321.50138288		-89.5
344		321.50013203		22.5
286		321.50027032		-35.5
470		321.50008735		148.5
489		321.50007339		167.5
265		321.50033607		-56.5
370		321.50040153		48.5
448		321.50008743		126.5
436		321.50009163		114.5
460		321.50007975		138.5
209		321.50148054		-112.5
455		321.50008769		133.5
153		321.53293836		-168.53
168		321.52586061		-153.53
155		321.52883246		-166.53
454		321.50011018		132.5
470		321.50007733		148.5
444		321.50009058		122.5
424		321.50010009		102.5
475		321.50008866		153.5
274		321.50030790		-47.5
380		321.50032205		58.5
294		321.50024462		-27.5
331		321.50024637		9.5
214		321.50146245		-107.5
237		321.51179441		-84.51
475		321.50007667		153.5

Mean Square Error = 14489.963345

Desired Output		Predict		Error
420		321.37671767		98.62
314		286.03717694		27.96
245		261.03266951		-16.03
303		319.55938254		-16.56
490		321.48507428		168.51
160		168.38548703		-8.39
488		321.48525655		166.51
472		321.48623860		150.51
209		240.55362986		-31.55
317		320.41249394		-3.41
165		170.34042982		-5.34
276		312.68078892		-36.68
468		321.47864323		146.52
465		321.46836399		143.53
303		318.62586042		-15.63
468		321.48559631		146.51
208		239.47391794		-31.47
234		254.88279184		-20.88

308	319.60810018	-11.61
478	321.48111702	156.52
293	318.45396391	-25.45
213	241.33332628	-28.33
294	318.13102553	-24.13
290	317.64094580	-27.64
478	321.48610420	156.51
460	321.46438471	138.54
248	274.27358392	-26.27
412	321.34256218	90.66
315	320.32378832	-5.32
153	165.31026569	-12.31
215	238.09504930	-23.1

Mean Square Error = 7684.219168

Desired Output	Predict	Error
450	321.50012837	128.5
239	321.50094742	-82.5
490	321.50012683	168.5
319	321.50022903	-2.5
349	321.50018630	27.5
484	321.50012223	162.5
333	321.50036637	11.5
250	321.50057290	-71.5
315	321.50038359	-6.5
470	321.50012935	148.5
481	321.50012225	159.5
230	321.50186214	-91.5
224	321.52103510	-97.52
308	321.50038500	-13.5
390	321.50041251	68.5
444	321.50012596	122.5
405	321.50014786	83.5
481	321.50014264	159.5
209	321.50191922	-112.5
462	321.50012748	140.5
433	321.50013223	111.5
280	321.50376564	-41.5
396	321.50014230	74.5
232	321.50116129	-89.5
290	321.50251012	-31.5
156	321.54056734	-165.54
490	321.50012612	168.5
242	321.50093957	-79.5
350	321.50073998	28.5
153	321.54778996	-168.55
360	321.50064724	38.5

Mean Square Error = 11476.056274

Desired Output	Predict	Error
297	321.35788269	-24.36
335	321.43181336	13.57
245	321.33551219	-76.34
253	321.41507314	-68.42
471	321.43530930	149.56
221	321.26972861	-100.27
192	163.46462997	28.54

471	321.43522396	149.56
288	321.42389138	-33.42
240	321.37581616	-81.38
428	321.43213044	106.57
327	321.42494420	5.58
490	321.43573645	168.56
422	321.43454608	100.57
333	321.42686808	11.57
271	321.41952835	-50.42
218	321.27345059	-103.27
329	321.43144948	7.57
467	321.43528259	145.56
214	321.30195975	-107.3
307	321.42771716	-14.43
417	321.43406829	95.57
288	321.42342967	-33.42
413	321.43388193	91.57
450	321.43383144	128.57
215	321.29359353	-106.29
490	321.43574499	168.56
259	317.96072373	-58.96
234	321.35884764	-87.36
211	321.30399620	-110.3
259	321.41716103	-62.42

Mean Square Error = 8803.221703

Desired Output	Predict	Error
153	153.00020994	-0.0
235	153.00029157	82.0
234	153.00029014	81.0
291	153.00031654	138.0
361	153.00033393	208.0
470	153.00035136	317.0
447	153.00034813	294.0
253	153.00030803	100.0
320	153.00032221	167.0
441	153.00034693	288.0
377	153.00033675	224.0
298	153.00031967	145.0
381	153.00033756	228.0
427	153.00034397	274.0
210	153.00028101	57.0
430	153.00034485	277.0
328	153.00032078	175.0
356	153.00033533	203.0
212	153.00028171	59.0
374	153.00033599	221.0
390	153.00033886	237.0
246	153.00023860	93.0
246	153.00029697	93.0
322	153.00031604	169.0
307	153.00032175	154.0
214	153.00028070	61.0
296	153.00031914	143.0
241	153.00028994	88.0
309	153.00032324	156.0
244	153.00029383	91.0
401	153.00033720	248.0

Mean Square Error = 33468.548387

***** Mean Square Error Average : 11265.7624 *****
2861.450135

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.73

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
305	321.50197780	-16.5
153	321.53600062	-168.54
444	321.50098082	122.5
291	321.50227797	-30.5
431	321.50102849	109.5
207	321.52601912	-114.53
319	321.50162587	-2.5
462	321.50099093	140.5
309	321.50189416	-12.5
178	321.53008632	-143.53
475	321.50129440	153.5
465	321.50115757	143.5
213	321.50614138	-108.51
385	321.50122395	63.5
341	321.50148413	19.5
328	321.50222475	6.5
377	321.50126572	55.5
153	321.53458421	-168.53
246	321.50368456	-75.5
412	321.50186594	90.5
437	321.50103388	115.5
235	321.50416305	-86.5
303	321.50543693	-18.51
298	321.50211109	-23.5
307	321.50193482	-14.5
240	321.50410976	-81.5
296	321.50213970	-25.5
470	321.50105658	148.5
302	321.50245541	-19.5
466	321.50112829	144.5
192	321.52831977	-129.53

Mean Square Error = 9848.165658

Desired Output	Predict	Error
361	321.50211680	39.5
327	321.50379855	5.5
490	321.50135595	168.5
156	321.36951945	-165.37
284	321.50380452	-37.5
396	321.50175513	74.5
246	321.50640528	-75.51
464	321.50139496	142.5
240	321.50942122	-81.51

344	321.50211328	22.5
305	321.50319757	-16.5
307	321.50313727	-14.5
393	321.50183986	71.5
209	321.51028329	-112.51
294	321.50349952	-27.5
322	321.50310378	0.5
210	321.51025348	-111.51
370	321.50490508	48.5
481	321.50151253	159.5
427	321.50164944	105.5
214	321.51021003	-107.51
271	321.50416652	-50.5
209	321.51025859	-112.51
239	321.50708603	-82.51
265	321.50432673	-56.5
235	321.50973573	-86.51
294	321.50337577	-27.5
153	321.32013703	-168.32
374	321.50200341	52.5
314	321.50715114	-7.51
319	321.50265763	-2.5

Mean Square Error = 7869.989039

Desired Output	Predict	Error
435	321.07045047	113.93
290	289.05741685	0.94
209	207.14218554	1.86
234	212.07367333	21.93
208	205.56148606	2.44
153	157.30217149	-4.3
308	297.84628509	10.15
420	320.01484754	99.99
320	311.91231159	8.09
153	157.24648814	-4.25
490	321.38519083	168.61
353	317.82710271	35.17
231	213.28164275	17.72
259	207.68341935	51.32
471	321.29348044	149.71
225	206.85666751	18.14
188	164.72518613	23.27
410	319.61229085	90.39
380	317.32508170	62.67
401	320.72238048	80.28
230	209.23227440	20.77
259	266.40708535	-7.41
469	321.27098570	147.73
168	161.16155088	6.84
242	213.34196617	28.66
209	207.14218554	1.86
238	210.01393044	27.99
390	318.39474577	71.61
211	208.10171611	2.9
360	318.83172148	41.17
212	207.62078964	4.38

Mean Square Error = 4159.057348

Desired Output	Predict	Error
297	302.99923147	-6.0
234	280.34228039	-46.34
440	321.36716044	118.63
164	195.94168015	-31.94
422	321.32347390	100.68
365	321.10596199	43.89
330	319.81117408	10.19
433	321.15563255	111.84
381	321.19592703	59.8
322	320.71163730	1.29
470	321.40761926	148.59
481	321.43414017	159.57
471	321.40782357	149.59
488	321.43945843	166.56
288	318.86914119	-30.87
413	321.23971234	91.76
270	293.72798787	-23.73
340	308.79177096	31.21
323	320.71759143	2.28
215	246.67984771	-31.68
230	280.08272617	-50.08
322	319.496555988	2.5
217	242.84572844	-25.85
308	320.22334463	-12.22
471	321.40535638	149.59
310	320.18511380	-10.19
349	321.00464204	28.0
232	257.56338349	-25.56
444	321.36766730	122.63
467	321.38685254	145.61
333	319.99883668	13.0

Mean Square Error = 7057.048306

Desired Output	Predict	Error
215	190.10418253	24.9
245	206.07455149	38.93
490	321.41555676	168.58
325	315.87623325	9.12
420	320.14124372	99.86
456	321.26489878	134.74
251	269.34093696	-18.34
208	190.17041847	17.83
155	184.87019377	-29.87
390	319.89294540	70.11
468	321.27296303	146.73
311	311.94719122	-0.95
483	321.41775142	161.58
376	319.32014060	56.68
405	320.05861313	84.94
345	317.33051843	27.67
315	311.74932212	3.25
370	318.85249807	51.15
274	279.61880614	-5.62
232	197.66337083	34.34
433	320.80381129	112.2
306	306.83759397	-0.84
430	320.70929939	109.29

256	271.01752817	-15.02
221	188.08616084	32.91
485	321.41384803	163.59
333	316.24618176	16.75
300	309.53370287	-9.53
337	316.68117986	20.32
156	184.86441104	-28.86
315	313.03639225	1.96

Mean Square Error = 5874.884239

Desired Output	Predict	Error
467	321.50329684	145.5
292	321.50471392	-29.5
460	321.50326759	138.5
424	321.50341026	102.5
416	321.50340311	94.5
470	321.50325507	148.5
490	321.50323522	168.5
231	321.50997461	-90.51
459	321.50330848	137.5
280	321.51900693	-41.52
216	321.51379336	-105.51
153	321.53216190	-168.53
300	321.50880318	-21.51
490	321.50324080	168.5
351	321.50364106	29.5
450	321.50354051	128.5
250	321.50619140	-71.51
290	321.50499961	-31.5
470	321.50329430	148.5
270	321.52486192	-51.52
213	321.51322058	-108.51
489	321.50323649	167.5
340	321.50578855	18.49
246	321.53884977	-75.54
160	321.54675131	-161.55
237	321.54463090	-84.54
486	321.50324063	164.5
286	321.50490332	-35.5
300	321.50443562	-21.5
215	321.51359133	-106.51
468	321.50325866	146.5

Mean Square Error = 12813.685423

Desired Output	Predict	Error
438	319.71770559	118.28
447	320.08805213	126.91
333	319.39941078	13.6
357	319.44225348	37.56
326	319.15362841	6.85
245	317.09471580	-72.09
410	319.70899706	90.29
236	316.77909438	-80.78
315	319.13433731	-4.13
445	319.76539133	125.23
428	319.61778281	108.38
405	319.44152862	85.56

247	317.89403031	-70.89
457	320.02298027	136.98
243	316.96209629	-73.96
253	318.46252939	-65.46
296	318.84761161	-22.85
218	315.67922522	-97.68
153	160.30727589	-7.31
276	318.46305130	-42.46
208	317.12973460	-109.13
469	320.06543574	148.93
288	317.64551441	-29.65
288	318.64829337	-30.65
248	318.26137898	-70.26
427	319.82595162	107.17
262	318.42394205	-56.42
368	319.48004064	48.52
303	318.98058203	-15.98
268	318.42936452	-50.43
303	319.11309810	-16.11

Mean Square Error = 6218.359897

Desired Output	Predict	Error
153	156.92138491	-3.92
214	322.17507281	-108.18
490	325.07271258	164.93
314	322.68260611	-8.68
325	323.48608546	1.51
280	322.95632784	-42.96
457	323.94876668	133.05
209	322.16836518	-113.17
260	322.39149508	-62.39
232	322.31227283	-90.31
250	322.29427832	-72.29
390	323.84664695	66.15
327	323.48304524	3.52
450	324.40652686	125.59
209	322.16831097	-113.17
382	323.81166099	58.19
390	323.02601256	66.97
288	323.07465464	-35.07
311	323.35565944	-12.36
360	322.67100852	37.33
397	323.77275790	73.23
489	325.01283891	163.99
315	323.12161441	-8.12
436	324.29266201	111.71
455	324.44530789	130.55
154	157.28111153	-3.28
451	324.86530908	126.13
398	323.17939435	74.82
238	322.42146589	-84.42
317	323.29014981	-6.29
460	324.02161374	135.98

Mean Square Error = 7782.622077

Desired Output	Predict	Error
448	321.50085065	126.5

247	321.50330973	-74.5
335	321.50117525	13.5
308	321.50148367	-13.5
313	321.50150009	-8.5
294	321.50181481	-27.5
329	321.50121810	7.5
478	321.50104760	156.5
214	321.50653939	-107.51
317	321.50142832	-4.5
253	321.50255222	-68.5
486	321.50092511	164.5
156	321.54856406	-165.55
156	321.54849294	-165.55
328	321.50378207	6.5
230	321.50434977	-91.5
484	321.50087640	162.5
247	321.50314378	-74.5
468	321.50154409	146.5
328	321.50130631	6.5
294	321.50208736	-27.5
245	321.50349648	-76.5
339	321.50114273	17.5
240	321.50463415	-81.5
172	321.54451379	-149.54
211	321.50660396	-110.51
241	321.50385317	-80.5
350	321.50332997	28.5
234	321.50385449	-87.5
215	321.50645281	-106.51
441	321.50089090	119.5

Mean Square Error = 9549.0099

Desired Output	Predict	Error
290	310.21201092	-20.21
210	241.45328064	-31.45
249	288.16965862	-39.17
470	321.47875005	148.52
255	279.01570031	-24.02
293	318.39042787	-25.39
465	321.48490462	143.52
454	321.45929625	132.54
475	321.48423438	153.52
236	259.40137041	-23.4
165	169.12910206	-4.13
490	321.48911561	168.51
412	321.43988101	90.56
465	321.47428862	143.53
252	307.49175201	-55.49
244	255.46124999	-11.46
478	321.48490590	156.52
417	321.35454691	95.65
153	163.41455760	-10.41
233	247.40651536	-14.41
328	320.81773113	7.18
331	320.76121426	10.24
490	321.48879533	168.51
362	321.12699069	40.87
252	307.03421563	-55.03
404	321.37908791	82.62

472		321.48897370		150.51
291		317.93244478		-26.93
224		210.86788580		13.13
356		321.14562040		34.85
488		321.48843897		166.51

Mean Square Error = 8885.443223

***** Mean Square Error Average : 8005.8265 *****

4159.057348

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.74

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
296		319.09122802		-23.09
238		317.12109186		-79.12
365		319.26276160		45.74
405		319.28392624		85.72
305		319.00791030		-14.01
209		317.04653851		-108.05
361		319.26063784		41.74
307		319.12093499		-12.12
485		319.84361348		165.16
484		319.80972652		164.19
337		319.21476296		17.79
224		222.61600560		1.38
308		319.04894101		-11.05
172		164.04876259		7.95
247		318.33077163		-71.33
315		319.15415436		-4.15
433		319.40659054		113.59
153		157.70575044		-4.71
259		304.92339000		-45.92
401		319.31814848		81.68
475		319.77843846		155.22
153		157.72319107		-4.72
305		319.01832991		-14.02
225		316.27173683		-91.27
260		317.88760499		-57.89
481		319.80086581		161.2
472		319.87913688		152.12
210		317.10346253		-107.1
319		319.12279546		-0.12
488		319.82697858		168.17
210		317.08008534		-107.08

Mean Square Error = 7996.154419

Desired Output		Predict		Error
467		489.97014342		-22.97
489		489.97019273		-0.97
333		489.96996270		-156.97

447	489.97012198	-42.97
490	489.97019366	0.03
441	489.97011297	-48.97
385	489.97004409	-104.97
410	489.97007887	-79.97
247	489.96954445	-242.97
330	489.96982511	-159.97
456	489.97015888	-33.97
308	489.96990142	-181.97
209	489.96917619	-280.97
215	489.96917262	-274.97
328	489.96986845	-161.97
490	489.97019062	0.03
213	489.96919506	-276.97
274	489.96975053	-215.97
188	489.96671376	-301.97
234	489.96940116	-255.97
313	489.96990968	-176.97
417	489.97006809	-72.97
296	489.96985041	-193.97
310	489.96988061	-179.97
478	489.97017976	-11.97
344	489.97000103	-145.97
245	489.96925808	-244.97
243	489.96944389	-246.97
490	489.97019247	0.03
333	489.96984517	-156.97
294	489.96983760	-195.97

Mean Square Error = 30281.375739

Desired Output	Predict	Error
160	321.54478692	-161.54
236	321.50368656	-85.5
327	321.50064295	5.5
382	321.50037703	60.5
241	321.50313155	-80.5
464	321.50020361	142.5
290	321.50125776	-31.5
231	321.50363605	-90.5
405	321.50095202	83.5
250	321.50199395	-71.5
192	321.53706315	-129.54
300	321.50105592	-21.5
207	321.53284522	-114.53
168	321.54247416	-153.54
248	321.50214746	-73.5
218	321.50527906	-103.51
322	321.50072167	0.5
420	321.50075022	98.5
345	321.50057890	23.5
239	321.50320844	-82.5
420	321.50032466	98.5
471	321.50024821	149.5
153	321.54904575	-168.55
233	321.50334515	-88.5
350	321.50255597	28.5
245	321.50276998	-76.5
156	321.54602170	-165.55
377	321.50043932	55.5

156		321.54535376		-165.55
404		321.50033440		82.5
302		321.50136478		-19.5

Mean Square Error = 10074.200429

Desired Output		Predict		Error
325		321.38644671		3.61
208		321.25886852		-113.26
276		321.34029388		-45.34
307		321.37066921		-14.37
450		321.43745063		128.56
156		162.33757636		-6.34
214		321.25198281		-107.25
460		321.44962913		138.55
412		321.42116910		90.58
246		318.71489396		-72.71
368		321.40350739		46.6
450		321.42451182		128.58
211		321.26067742		-110.26
339		321.39152314		17.61
370		321.40313442		48.6
244		321.27776046		-77.28
214		321.25453779		-107.25
236		321.28470811		-85.28
247		321.32094770		-74.32
390		321.40106115		68.6
381		321.40920487		59.59
235		321.26717377		-86.27
328		321.38886505		6.61
481		321.45903478		159.54
314		321.36106325		-7.36
314		321.29999303		-7.3
309		321.38034439		-12.38
311		321.37750010		-10.38
252		321.34000022		-69.34
251		321.34164664		-70.34
490		321.45870730		168.54

Mean Square Error = 7077.154858

Desired Output		Predict		Error
291		489.98357831		-198.98
437		489.98375213		-52.98
209		489.98348237		-280.98
488		489.98386612		-1.98
329		489.98363224		-160.98
153		489.98340549		-336.98
153		489.98340543		-336.98
320		489.98361686		-169.98
238		489.98350650		-251.98
294		489.98357676		-195.98
326		489.98354737		-163.98
331		489.98360594		-158.98
398		489.98362836		-91.98
259		489.98354908		-230.98
156		489.98340692		-333.98
431		489.98374476		-58.98
284		489.98356228		-205.98

457	489.98378937	-32.98
209	489.98348237	-280.98
153	489.98340602	-336.98
212	489.98348393	-277.98
393	489.98370379	-96.98
215	489.98348017	-274.98
349	489.98365492	-140.98
340	489.98352699	-149.98
154	489.98340556	-335.98
471	489.98382152	-18.98
306	489.98359882	-183.98
290	489.98357473	-199.98
341	489.98364860	-148.98
360	489.98354891	-129.98

Mean Square Error = 45194.428787

Desired Output	Predict	Error
294	321.50441809	-27.5
232	321.50828145	-89.51
250	321.50990171	-71.51
430	321.50208397	108.5
396	321.50222637	74.5
360	321.50242169	38.5
470	321.50236255	148.5
249	321.50614550	-72.51
390	321.50234144	68.5
231	321.50838886	-90.51
268	321.50470420	-53.5
362	321.50501614	40.49
486	321.50176653	164.5
164	321.51449322	-157.51
444	321.50201011	122.5
286	321.50414740	-35.5
486	321.50181516	164.5
322	321.50440840	0.5
298	321.50383427	-23.5
288	321.50435843	-33.5
465	321.50192800	143.5
317	321.50346091	-4.5
444	321.50196223	122.5
208	321.51151401	-113.51
255	321.50939175	-66.51
317	321.50320310	-4.5
280	321.50432671	-41.5
390	321.50413499	68.5
470	321.50180669	148.5
234	321.50774775	-87.51
216	321.51160309	-105.51

Mean Square Error = 8853.484871

Desired Output	Predict	Error
490	321.50015745	168.5
412	321.50045410	90.5
475	321.50020981	153.5
153	321.54365595	-168.54
155	321.53940616	-166.54
433	321.50020588	111.5

245	321.50151574	-76.5
230	321.50331530	-91.5
445	321.50029772	123.5
422	321.50021150	100.5
448	321.50018221	126.5
370	321.50106444	48.5
471	321.50019152	149.5
335	321.50032373	13.5
333	321.50068270	11.5
303	321.50233422	-18.5
288	321.50061997	-33.5
319	321.50040919	-2.5
470	321.50018577	148.5
490	321.50016227	168.5
315	321.50072159	-6.5
262	321.50084124	-59.5
427	321.50020672	105.5
440	321.50019456	118.5
230	321.50203957	-91.5
468	321.50016798	146.5
246	321.50147806	-75.5
230	321.50208331	-91.5
153	321.54063763	-168.54
240	321.50218655	-81.5
293	321.50061962	-28.5

Mean Square Error = 11927.484994

Desired Output	Predict	Error
214	153.00000093	61.0
303	153.00000091	150.0
462	153.00000090	309.0
455	153.00000090	302.0
490	153.00000090	337.0
470	153.00000090	317.0
217	153.00000093	64.0
436	153.00000091	283.0
256	153.00000091	103.0
315	153.00000091	162.0
468	153.00000090	315.0
447	153.00000091	294.0
478	153.00000090	325.0
424	153.00000091	271.0
213	153.00000093	60.0
211	153.00000093	58.0
242	153.00000092	89.0
292	153.00000091	139.0
234	153.00000092	81.0
470	153.00000090	317.0
328	153.00000091	175.0
165	153.00000179	12.0
356	153.00000091	203.0
438	153.00000091	285.0
280	153.00000094	127.0
270	153.00000096	117.0
471	153.00000090	318.0
323	153.00000091	170.0
451	153.00000090	298.0
469	153.00000090	316.0
303	153.00000091	150.0

Mean Square Error = 50909.354839

Desired Output	Predict	Error
459	321.49999120	137.5
374	321.49998591	52.5
467	321.49999077	145.5
390	321.49998756	68.5
265	321.49996077	-56.5
294	321.49997398	-27.5
291	321.49997190	-30.5
311	321.49997834	-10.5
253	321.49995753	-68.5
253	321.49995815	-68.5
327	321.49997363	5.5
427	321.49998922	105.5
465	321.49999009	143.5
300	321.49991772	-21.5
357	321.49998471	35.5
435	321.49998560	113.5
237	321.49807935	-84.5
290	321.49987365	-31.5
209	321.49984802	-112.5
397	321.49998733	75.5
215	321.49983505	-106.5
465	321.49999024	143.5
322	321.49997795	0.5
466	321.49999046	144.5
288	321.49991421	-33.5
428	321.49998449	106.5
380	321.49996910	58.5
215	321.49983120	-106.5
490	321.49999310	168.5
305	321.49997609	-16.5
470	321.49999162	148.5

Mean Square Error = 8564.701613

Desired Output	Predict	Error
468	321.49999870	146.5
271	321.49999708	-50.5
208	321.49998992	-113.5
328	321.49999448	6.5
460	321.49999860	138.5
232	321.49999187	-89.5
416	321.49999857	94.5
308	321.49999795	-13.5
300	321.49999779	-21.5
454	321.49999854	132.5
489	321.49999877	167.5
246	321.49999515	-75.5
410	321.49999846	88.5
315	321.49999806	-6.5
288	321.49999751	-33.5
325	321.49999817	3.5
232	321.49998734	-89.5
340	321.49999716	18.5
240	321.49999301	-81.5
221	321.49998476	-100.5

209	321.49998784	-112.5
376	321.49999845	54.5
153	321.45090444	-168.45
457	321.49999857	135.5
351	321.49999835	29.5
353	321.49999832	31.5
469	321.49999870	147.5
483	321.49999876	161.5
297	321.49999301	-24.5
270	321.49999343	-51.5
235	321.49998849	-86.5

Mean Square Error = 9094.158145

***** Mean Square Error Average : 18997.2499 *****
7077.154858

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.75

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output | Predict | Error

326	321.49884764	4.5
209	321.49744442	-112.5
328	321.49938204	6.5
213	321.49752819	-108.5
155	321.43903556	-166.44
317	321.49934497	-4.5
288	321.49832667	-33.5
345	321.49941149	23.5
250	321.49793010	-71.5
245	321.49780783	-76.5
300	321.49926780	-21.5
236	321.49845411	-85.5
315	321.49917064	-6.5
470	321.49954519	148.5
433	321.49941823	111.5
153	321.43092738	-168.43
248	321.49882578	-73.5
296	321.49924855	-25.5
340	321.49859046	18.5
153	321.43517892	-168.44
154	321.43738539	-167.44
489	321.49957429	167.5
353	321.49942357	31.5
233	321.49822302	-88.5
288	321.49918844	-33.5
469	321.49953133	147.5
303	321.49928704	-18.5
325	321.49928466	3.5
211	321.49752301	-110.5
214	321.49749519	-107.5
478	321.49956604	156.5

Mean Square Error = 9893.415345

Desired Output	Predict	Error
297	297.94738705	-0.95
330	311.17046706	18.83
270	212.42685744	57.57
470	321.38390106	148.62
380	318.79509316	61.2
362	318.56355862	43.44
490	321.45397791	168.55
235	209.62739991	25.37
156	160.51084884	-4.51
483	321.45579099	161.54
405	320.61946855	84.38
245	215.62048236	29.38
231	209.84006198	21.16
398	319.62390162	78.38
490	321.45543963	168.54
333	316.34957217	16.65
381	320.02625748	60.97
160	160.97890106	-0.98
339	316.67328162	22.33
486	321.43912486	164.56
490	321.45249495	168.55
485	321.45394939	163.55
244	211.91426404	32.09
428	320.72213820	107.28
260	222.37102398	37.63
153	158.96457772	-5.96
232	210.46960362	21.53
481	321.45552122	159.54
393	320.50622332	72.49
370	314.37179553	55.63
390	320.36460986	69.64

Mean Square Error = 8689.561652

Desired Output	Predict	Error
259	321.49197289	-62.49
340	321.49202577	18.51
327	321.49396188	5.51
465	321.49706437	143.5
323	321.49551586	1.5
444	321.49727912	122.5
286	321.49327116	-35.49
224	321.30713572	-97.31
172	321.21516982	-149.22
306	321.49476414	-15.49
164	321.20232356	-157.2
308	321.49478448	-13.49
412	321.49528204	90.5
412	321.49521619	90.5
270	321.48504605	-51.49
230	321.48292631	-91.48
247	321.48851305	-74.49
249	321.49085463	-72.49
457	321.49689770	135.5
447	321.49731784	125.5
438	321.49627456	116.5
211	321.47887827	-110.48

314	321.48617489	-7.49
207	321.27427588	-114.27
315	321.49515672	-6.5
489	321.49780496	167.5
153	321.16021997	-168.16
310	321.49463926	-11.49
225	321.47534485	-96.48
253	321.49176193	-68.49
344	321.49612124	22.5

Mean Square Error = 9039.609206

Desired Output	Predict	Error
424	321.49999597	102.5
490	321.49999655	168.5
478	321.49999649	156.5
303	321.49999401	-18.5
291	321.49999338	-30.5
213	321.49997580	-108.5
290	321.49999328	-31.5
450	321.49999624	128.5
471	321.49999635	149.5
246	321.49998806	-75.5
467	321.49999634	145.5
470	321.49999647	148.5
490	321.49999656	168.5
192	321.49662881	-129.5
300	321.49998558	-21.5
241	321.49998323	-80.5
376	321.49999568	54.5
460	321.49999604	138.5
385	321.49999570	63.5
251	321.49999123	-70.5
382	321.49999574	60.5
234	321.49998339	-87.5
328	321.49999426	6.5
240	321.49998178	-81.5
307	321.49999416	-14.5
441	321.49999617	119.5
490	321.49999655	168.5
217	321.49997131	-104.5
437	321.49999614	115.5
488	321.49999653	166.5
265	321.49999198	-56.5

Mean Square Error = 11759.08871

Desired Output	Predict	Error
445	153.00002198	292.0
488	153.00002506	335.0
490	153.00002518	337.0
470	153.00002385	317.0
335	153.00002148	182.0
284	153.00001868	131.0
296	153.00001942	143.0
232	153.00001486	79.0
168	153.00000721	15.0
431	153.00002363	278.0
280	153.00001855	127.0

256	153.00001782	103.0
274	153.00001835	121.0
456	153.00002456	303.0
243	153.00001540	90.0
427	153.00002356	274.0
309	153.00002008	156.0
341	153.00002133	188.0
448	153.00002403	295.0
308	153.00002027	155.0
247	153.00001631	94.0
333	153.00001915	180.0
422	153.00002341	269.0
329	153.00002133	176.0
390	153.00001889	237.0
290	153.00001867	137.0
218	153.00001327	65.0
234	153.00001469	81.0
322	153.00001890	169.0
427	153.00002334	274.0
209	153.00001349	56.0

Mean Square Error = 41619.193548

Desired Output	Predict	Error
436	321.50040130	114.5
238	321.50236982	-83.5
291	321.50101636	-30.5
410	321.50046029	88.5
331	321.50097807	9.5
294	321.50093098	-27.5
156	321.54661905	-165.55
280	321.50697009	-41.51
420	321.50043628	98.5
253	321.50145645	-68.5
210	321.50448628	-111.5
401	321.50045060	79.5
313	321.50076376	-8.5
215	321.50450888	-106.5
288	321.50110944	-33.5
390	321.50047604	68.5
156	321.54708274	-165.55
416	321.50042622	94.5
396	321.50044680	74.5
294	321.50096260	-27.5
322	321.50068542	0.5
450	321.50049387	128.5
252	321.50149612	-69.5
470	321.50049192	148.5
252	321.50153422	-69.5
209	321.50455231	-112.5
230	321.50290187	-91.5
484	321.50036240	162.5
314	321.50225420	-7.5
447	321.50065213	125.5
464	321.50036851	142.5

Mean Square Error = 9148.828552

Desired Output	Predict	Error
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465	489.93549018	-24.94
246	489.93546365	-243.94
292	489.93548917	-197.94
433	489.93548974	-56.94
486	489.93549016	-3.94
468	489.93549023	-21.94
460	489.93549024	-29.94
215	489.93548716	-274.94
374	489.93548943	-115.94
410	489.93548943	-79.94
357	489.93548955	-132.94
315	489.93548939	-174.94
365	489.93548950	-124.94
245	489.93548812	-244.94
208	489.93548777	-281.94
320	489.93548982	-169.94
454	489.93549021	-35.94
156	489.93511894	-333.94
242	489.93548702	-247.94
319	489.93548962	-170.94
351	489.93548909	-138.94
208	489.93548797	-281.94
210	489.93548787	-279.94
255	489.93548881	-234.94
471	489.93549028	-18.94
481	489.93549032	-8.94
444	489.93548989	-45.94
337	489.93548957	-152.94
215	489.93548696	-274.94
368	489.93548913	-121.94
246	489.93548857	-243.94

Mean Square Error = 33657.717148

Desired Output	Predict	Error
467	321.43711954	145.56
153	157.89111781	-4.89
462	321.41017078	140.59
472	321.47916671	150.52
214	210.63751224	3.36
350	277.57332904	72.43
420	320.92626060	99.07
237	199.89987304	37.1
430	321.13797935	108.86
455	321.37820610	133.62
231	213.36276059	17.64
250	258.38987867	-8.39
298	307.45448339	-9.45
214	210.52040341	3.48
293	301.32505988	-8.33
475	321.47924739	153.52
360	319.23338378	40.77
413	320.26011916	92.74
188	165.03754181	22.96
404	320.74084876	83.26
451	321.37400586	129.63
390	320.56329560	69.44
377	319.54721213	57.45
397	320.99847020	76.0
262	265.47845823	-3.48

469	321.43828495	147.56
238	212.26778326	25.73
475	321.46146111	153.54
361	319.16296234	41.84
212	211.29354657	0.71
290	277.83508440	12.16

Mean Square Error = 7427.545097

Desired Output	Predict	Error
302	321.50108660	-19.5
221	321.50342147	-100.5
333	321.50099869	11.5
271	321.50112817	-50.5
349	321.50061037	27.5
471	321.50043089	149.5
276	321.50107941	-45.5
435	321.50091900	113.5
325	321.50069156	3.5
259	321.51149818	-62.51
490	321.50038502	168.5
440	321.50041606	118.5
153	321.54341424	-168.54
240	321.50302253	-81.5
294	321.50095301	-27.5
236	321.50242413	-85.5
457	321.50041323	135.5
328	321.50092201	6.5
319	321.50070229	-2.5
239	321.50208365	-82.5
208	321.50316511	-113.5
468	321.50064379	146.5
305	321.50087457	-16.5
360	321.50159867	38.5
215	321.50338725	-106.5
288	321.50104232	-33.5
209	321.50342463	-112.5
307	321.50083590	-14.5
356	321.50053940	34.5
294	321.50108184	-27.5
305	321.50085024	-16.5

Mean Square Error = 7404.983281

Desired Output	Predict	Error
417	153.00069877	264.0
459	153.00070110	306.0
303	153.00068860	150.0
471	153.00069984	318.0
317	153.00069294	164.0
216	153.00069518	63.0
232	153.00069438	79.0
305	153.00069267	152.0
230	153.00069458	77.0
209	153.00069422	56.0
468	153.00070337	315.0
405	153.00069055	252.0
300	153.00069197	147.0
370	153.00069526	217.0

470		153.00070127		317.0
465		153.00069685		312.0
327		153.00069478		174.0
308		153.00069054		155.0
165		153.00070792		12.0
153		153.00070859		-0.0
466		153.00069697		313.0
153		153.00070889		-0.0
153		153.00070848		-0.0
322		153.00069213		169.0
209		153.00069446		56.0
235		153.00069363		82.0
240		153.00069422		87.0
234		153.00069400		81.0
247		153.00069130		94.0
178		153.00070756		25.0
311		153.00069293		158.0

Mean Square Error = 33060.677419

***** Mean Square Error Average : 17170.062 *****
7404.983281

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.76

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
156		321.48019277		-165.48
444		321.49999921		122.5
188		321.48855005		-133.49
417		321.49999902		95.5
284		321.49999687		-37.5
456		321.49999928		134.5
427		321.49999910		105.5
156		321.48175039		-165.48
207		321.49418605		-114.49
450		321.49999894		128.5
490		321.49999935		168.5
340		321.49999603		18.5
390		321.49999740		68.5
296		321.49999759		-25.5
368		321.49999889		46.5
310		321.49999790		-11.5
239		321.49998850		-82.5
339		321.49999866		17.5
317		321.49999823		-4.5
218		321.49996796		-103.5
293		321.49999741		-28.5
486		321.49999933		164.5
237		321.49819383		-84.5
460		321.49999909		138.5
308		321.49999706		-13.5
303		321.49999785		-18.5
260		321.49998662		-61.5

246	321.49919569	-75.5
396	321.49999901	74.5
153	321.47529800	-168.48
288	321.49999716	-33.5

Mean Square Error = 10014.09069

Desired Output	Predict	Error
413	341.39838638	71.6
472	477.00423534	-5.0
252	322.35910801	-70.36
298	326.20970115	-28.21
483	475.16615359	7.83
450	409.56478276	40.44
208	321.52274582	-113.52
215	321.51034463	-106.51
390	348.36336879	41.64
401	350.04096459	50.96
294	325.30498927	-31.3
471	447.11993799	23.88
307	326.53206673	-19.53
276	322.38238746	-46.38
340	321.94874727	18.05
405	342.72640381	62.27
212	321.52535153	-109.53
232	321.51737306	-89.52
168	321.49902455	-153.5
381	343.67921323	37.32
274	322.34463099	-48.34
323	327.13615818	-4.14
215	321.51175031	-106.51
485	474.35657611	10.64
471	445.62412347	25.38
209	321.51979611	-112.52
230	321.52559845	-91.53
311	327.39014723	-16.39
488	471.12160381	16.88
232	321.52379925	-89.52
306	324.97273103	-18.97

Mean Square Error = 4478.369842

Desired Output	Predict	Error
424	489.99999907	-66.0
437	489.99999911	-53.0
481	489.99999921	-9.0
468	489.99999919	-22.0
265	489.99999885	-225.0
294	489.99999890	-196.0
208	489.99999853	-282.0
445	489.99999913	-45.0
153	489.99999681	-337.0
470	489.99999918	-20.0
404	489.99999906	-86.0
240	489.99999859	-250.0
475	489.99999920	-15.0
302	489.99999894	-188.0
235	489.99999863	-255.0
249	489.99999880	-241.0

444	489.99999912	-46.0
326	489.99999895	-164.0
341	489.99999901	-149.0
247	489.99999875	-243.0
214	489.99999855	-276.0
335	489.99999899	-155.0
246	489.99999872	-244.0
328	489.99999900	-162.0
436	489.99999911	-54.0
448	489.99999912	-42.0
211	489.99999857	-279.0
465	489.99999931	-25.0
327	489.99999899	-163.0
327	489.99999899	-163.0
440	489.99999911	-50.0

Mean Square Error = 30835.064516

Desired Output	Predict	Error
470	489.99999803	-20.0
234	489.99999789	-256.0
470	489.99999802	-20.0
290	489.99999786	-200.0
286	489.99999795	-204.0
315	489.99999797	-175.0
360	489.99999792	-130.0
240	489.99999789	-250.0
242	489.99999790	-248.0
490	489.99999804	0.0
322	489.99999796	-168.0
308	489.99999796	-182.0
315	489.99999797	-175.0
345	489.99999798	-145.0
490	489.99999804	0.0
209	489.99999787	-281.0
294	489.99999795	-196.0
307	489.99999796	-183.0
241	489.99999790	-249.0
245	489.99999788	-245.0
290	489.99999794	-200.0
441	489.99999802	-49.0
350	489.99999791	-140.0
262	489.99999793	-228.0
438	489.99999799	-52.0
280	489.99999794	-210.0
466	489.99999802	-24.0
238	489.99999790	-252.0
232	489.99999789	-258.0
430	489.99999802	-60.0
297	489.99999788	-193.0

Mean Square Error = 33472.677419

Desired Output	Predict	Error
233	153.00024790	80.0
215	153.00024688	62.0
470	153.00027737	317.0
230	153.00024660	77.0
225	153.00024635	72.0

322	153.00025657	169.0
488	153.00027502	335.0
390	153.00025762	237.0
393	153.00026047	240.0
305	153.00025476	152.0
244	153.00024879	91.0
471	153.00026864	318.0
156	153.00023881	3.0
344	153.00025759	191.0
234	153.00024868	81.0
291	153.00025404	138.0
390	153.00026004	237.0
329	153.00025675	176.0
291	153.00025425	138.0
385	153.00025991	232.0
308	153.00025536	155.0
245	153.00024937	92.0
303	153.00025512	150.0
213	153.00024728	60.0
250	153.00025196	97.0
433	153.00026019	280.0
292	153.00025345	139.0
376	153.00025930	223.0
313	153.00025589	160.0
328	153.00024981	175.0
427	153.00026273	274.0

Mean Square Error = 34766.677419

Desired Output	Predict	Error
217	321.50743745	-104.51
353	321.50098068	31.5
422	321.50070568	100.5
236	321.50509802	-85.51
435	321.50175163	113.5
420	321.50072990	98.5
325	321.50116891	3.5
370	321.50089667	48.5
382	321.50078060	60.5
331	321.50183924	9.5
360	321.50083653	38.5
397	321.50080328	75.5
290	321.50200333	-31.5
153	321.55914457	-168.56
428	321.50117314	106.5
490	321.50068133	168.5
490	321.50065833	168.5
486	321.50065063	164.5
236	321.50412492	-85.5
153	321.56113107	-168.56
250	321.50614183	-71.51
165	321.55306261	-156.55
178	321.54989810	-143.55
361	321.50093767	39.5
209	321.50767009	-112.51
467	321.50076398	145.5
410	321.50072767	88.5
248	321.50321418	-73.5
208	321.50706389	-113.51
412	321.50138268	90.5

475		321.50095440		153.5
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Mean Square Error = 11903.611377

Desired Output		Predict		Error
460		489.99983642		-30.0
416		489.99983609		-74.0
468		489.99983602		-22.0
469		489.99983606		-21.0
455		489.99983616		-35.0
214		489.99983213		-276.0
153		489.99983627		-337.0
471		489.99983559		-19.0
303		489.99983109		-187.0
337		489.99983427		-153.0
234		489.99983234		-256.0
365		489.99983486		-125.0
315		489.99983334		-175.0
153		489.99983626		-337.0
209		489.99983215		-281.0
255		489.99983200		-235.0
300		489.99983318		-190.0
447		489.99983335		-43.0
311		489.99983396		-179.0
253		489.99983256		-237.0
305		489.99983334		-185.0
333		489.99983279		-157.0
462		489.99983615		-28.0
156		489.99983586		-334.0
320		489.99983327		-170.0
333		489.99983423		-157.0
300		489.99983354		-190.0
470		489.99983647		-20.0
319		489.99983412		-171.0
240		489.99983352		-250.0
245		489.99983215		-245.0

Mean Square Error = 37281.903226

Desired Output		Predict		Error
490		321.50070179		168.5
300		321.50390295		-21.5
481		321.50095102		159.5
231		321.50407904		-90.5
215		321.50608999		-106.51
420		321.50120694		98.5
210		321.50620577		-111.51
309		321.50138995		-12.5
457		321.50064377		135.5
412		321.50187981		90.5
153		321.54353960		-168.54
457		321.50081881		135.5
362		321.50243086		40.5
333		321.50190446		11.5
259		321.50213433		-62.5
398		321.50162125		76.5
288		321.50187239		-33.5
469		321.50072921		147.5
451		321.50064505		129.5

288		321.50405455		-33.5
209		321.50623508		-112.51
280		321.50907146		-41.51
305		321.50151135		-16.5
357		321.50089566		35.5
433		321.50064403		111.5
153		321.54235792		-168.54
330		321.50197923		8.5
489		321.50073393		167.5
251		321.50259292		-70.5
351		321.50081428		29.5
380		321.50204705		58.5

Mean Square Error = 10189.811406

Desired Output		Predict		Error
325		489.99998672		-165.0
294		489.99998636		-196.0
155		489.99997443		-335.0
377		489.99998609		-113.0
465		489.99998734		-25.0
454		489.99998685		-36.0
374		489.99998611		-116.0
235		489.99998408		-255.0
192		489.99997552		-298.0
288		489.99998637		-202.0
231		489.99998422		-259.0
328		489.99998711		-162.0
154		489.99997432		-336.0
214		489.99998457		-276.0
268		489.99998574		-222.0
405		489.99998654		-85.0
216		489.99998399		-274.0
164		489.99997490		-326.0
484		489.99998862		-6.0
221		489.99998374		-269.0
315		489.99998666		-175.0
238		489.99998437		-252.0
410		489.99998546		-80.0
459		489.99998712		-31.0
271		489.99998571		-219.0
431		489.99998629		-59.0
489		489.99998902		-1.0
447		489.99998667		-43.0
319		489.99998640		-171.0
224		489.99997649		-266.0
470		489.99998756		-20.0

Mean Square Error = 40273.516129

Desired Output		Predict		Error
256		489.99719401		-234.0
213		489.99717751		-277.0
210		489.99717714		-280.0
230		489.99718346		-260.0
270		489.99718426		-220.0
247		489.99718980		-243.0
328		489.99720176		-162.0
253		489.99719375		-237.0

356	489.99720382	-134.0
247	489.99718921	-243.0
468	489.99720477	-22.0
252	489.99719289	-238.0
259	489.99714938	-231.0
322	489.99719679	-168.0
153	489.99709638	-337.0
270	489.99715889	-220.0
243	489.99718608	-247.0
314	489.99718847	-176.0
211	489.99717742	-279.0
246	489.99718861	-244.0
370	489.99719311	-120.0
465	489.99720555	-25.0
317	489.99719963	-173.0
349	489.99720282	-141.0
314	489.99718601	-176.0
478	489.99720669	-12.0
478	489.99720743	-12.0
490	489.99720768	0.0
467	489.99720674	-23.0
160	489.99710286	-330.0
296	489.99719830	-194.0

Mean Square Error = 42501.935484

***** Mean Square Error Average : 25571.7658 *****
4478.369842

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.77

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
431	321.50013149	109.5
484	321.50011664	162.5
252	321.50045881	-69.5
464	321.50011802	142.5
209	321.50110276	-112.5
450	321.50012890	128.5
490	321.50012259	168.5
368	321.50016014	46.5
470	321.50011736	148.5
233	321.50070928	-88.5
270	321.50223306	-51.5
417	321.50014592	95.5
172	321.51011246	-149.51
153	321.51218423	-168.51
489	321.50011682	167.5
412	321.50034901	90.5
253	321.50043916	-68.5
209	321.50109767	-112.5
381	321.50016714	59.5
444	321.50013029	122.5
390	321.50035490	68.5

153	321.51307093	-168.51
232	321.50071775	-89.5
310	321.50027496	-11.5
333	321.50021656	11.5
248	321.50054196	-73.5
293	321.50032800	-28.5
168	321.51044635	-153.51
253	321.50042719	-68.5
351	321.50017475	29.5
377	321.50017080	55.5

Mean Square Error = 11857.695174

Desired Output	Predict	Error
333	320.81290994	12.19
385	321.32371520	63.68
390	321.33219769	68.67
398	321.20357133	76.8
314	319.24401010	-5.24
280	313.75682489	-33.76
475	321.48968521	153.51
153	163.45936454	-10.46
154	165.69592186	-11.7
192	183.23961045	8.76
237	221.01834196	15.98
470	321.47798322	148.52
317	320.43766597	-3.44
490	321.48920104	168.51
356	321.12557836	34.87
241	249.23276927	-8.23
307	319.60703608	-12.61
213	242.86043477	-29.86
240	248.96576894	-8.97
328	320.83538301	7.16
433	321.43520527	111.56
317	320.46509904	-3.47
207	198.27383306	8.73
156	167.38250672	-11.38
444	321.45498193	122.55
259	310.86985155	-51.87
466	321.47351488	144.53
340	320.72359468	19.28
210	243.95334316	-33.95
308	319.11582756	-11.12
490	321.48917937	168.51

Mean Square Error = 5624.678126

Desired Output	Predict	Error
284	289.88674531	-5.89
231	198.03818611	32.96
250	200.07331190	49.93
209	188.57943839	20.42
380	303.95161363	76.05
294	299.65726769	-5.66
456	320.89577897	135.1
457	320.19445361	136.81
357	317.38604670	39.61
153	181.12028219	-28.12

232	198.19195986	33.81
465	320.78879627	144.21
315	311.75236193	3.25
450	319.73612506	130.26
262	277.12969576	-15.13
390	311.65144454	78.35
413	319.14436680	93.86
470	321.01714082	148.98
234	200.25733548	33.74
214	188.96521860	25.03
300	306.33641943	-6.34
339	316.35804663	22.64
230	197.82070119	32.18
470	320.85798761	149.14
468	320.91581498	147.08
410	318.83068917	91.17
370	318.02208601	51.98
447	320.15131661	126.85
314	218.59450502	95.41
333	307.60684590	25.39
246	181.22206628	64.78

Mean Square Error = 6894.937029

Desired Output	Predict	Error
234	489.99872309	-256.0
216	489.99704243	-274.0
485	489.99985706	-5.0
475	489.99986787	-15.0
215	489.99706756	-275.0
246	489.99896345	-244.0
155	489.97029311	-334.97
427	489.99984995	-63.0
260	489.99820531	-230.0
447	489.99985745	-43.0
156	489.97068942	-333.97
238	489.99742932	-252.0
303	489.99969876	-187.0
459	489.99985952	-31.0
436	489.99985704	-54.0
247	489.99901538	-243.0
448	489.99986325	-42.0
337	489.99977836	-153.0
236	489.99829710	-254.0
213	489.99713153	-277.0
328	489.99964818	-162.0
462	489.99985980	-28.0
483	489.99985223	-7.0
420	489.99973368	-70.0
455	489.99985862	-35.0
306	489.99971012	-184.0
469	489.99985952	-21.0
218	489.99700816	-272.0
240	489.99860560	-250.0
255	489.99800280	-235.0
488	489.99986239	-2.0

Mean Square Error = 36951.963284

Desired Output	Predict	Error
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308	321.49923698	-13.5
297	321.49033457	-24.49
467	321.49972117	145.5
393	321.49961375	71.5
361	321.49953276	39.5
486	321.49975702	164.5
467	321.49970352	145.5
164	156.22218810	7.78
249	321.49761237	-72.5
290	321.49890406	-31.5
370	321.49820617	48.5
437	321.49968240	115.5
305	321.49912712	-16.5
457	321.49970962	135.5
231	321.48917507	-90.49
323	321.49939894	1.5
428	321.49950279	106.5
319	321.49937047	-2.5
288	321.49886379	-33.5
322	321.49925046	0.5
232	321.47531303	-89.48
274	321.49852969	-47.5
291	321.49894329	-30.5
470	321.49971526	148.5
259	319.98851832	-60.99
440	321.49969380	118.5
490	321.49976168	168.5
412	321.49940090	90.5
390	321.49960719	68.5
433	321.49953836	111.5
153	153.85856781	-0.86

Mean Square Error = 7834.392539

Desired Output	Predict	Error
471	321.50040982	149.5
335	321.50048308	13.5
294	321.50056816	-27.5
427	321.50042672	105.5
315	321.50051876	-6.5
490	321.50039188	168.5
276	321.50061721	-45.5
376	321.50045092	54.5
360	321.50072491	38.5
221	321.50139099	-100.5
311	321.50052045	-10.5
460	321.50040301	138.5
471	321.50040933	149.5
238	321.50089628	-83.5
327	321.50049510	5.5
153	321.54831548	-168.55
296	321.50055969	-25.5
214	321.50130436	-107.5
188	321.53296143	-133.53
156	321.54432650	-165.54
401	321.50044589	79.5
243	321.50091464	-78.5
405	321.50044805	83.5
236	321.50089490	-85.5

490	321.50039233	168.5
215	321.50132524	-106.5
319	321.50050976	-2.5
308	321.50052737	-13.5
478	321.50039738	156.5
328	321.50086563	6.5
244	321.50088982	-77.5

Mean Square Error = 10038.705

Desired Output	Predict	Error
405	393.38722939	11.61
313	354.65358075	-41.65
215	321.55298215	-106.55
215	321.56059921	-106.56
211	321.63288542	-110.63
212	321.62926240	-109.63
153	321.49995810	-168.5
288	322.27050332	-34.27
349	380.89407736	-31.89
247	322.97858835	-75.98
322	347.62647783	-25.63
345	378.62636281	-33.63
489	485.68016132	3.32
350	324.82872542	25.17
330	357.28843605	-27.29
344	374.57426007	-30.57
340	323.73451230	16.27
235	321.61886350	-86.62
286	329.71128259	-43.71
256	326.48249741	-70.48
424	438.12132287	-14.12
234	321.70496851	-87.7
160	321.49994455	-161.5
302	338.44767133	-36.45
486	485.12108180	0.88
300	322.36848542	-22.37
156	321.49994878	-165.5
153	321.49995852	-168.5
165	321.49993906	-156.5
247	323.24172843	-76.24
210	321.61700691	-111.62

Mean Square Error = 7687.040194

Desired Output	Predict	Error
230	153.00475694	77.0
365	153.00465019	212.0
435	153.00465513	282.0
230	153.00472663	77.0
245	153.00470992	92.0
209	153.00475330	56.0
490	153.00463405	337.0
224	153.00506562	70.99
454	153.00464553	301.0
362	153.00467608	209.0
325	153.00466352	172.0
410	153.00464382	257.0
307	153.00466384	154.0

245	153.00474043	92.0
416	153.00464314	263.0
465	153.00464200	312.0
327	153.00467032	174.0
296	153.00466673	143.0
271	153.00467854	118.0
490	153.00463384	337.0
488	153.00463438	335.0
325	153.00465640	172.0
472	153.00463804	319.0
438	153.00465024	285.0
290	153.00467354	137.0
396	153.00464505	243.0
153	153.00526973	-0.01
303	153.00466538	150.0
298	153.00466632	145.0
469	153.00463966	316.0
294	153.00466758	141.0

Mean Square Error = 46426.9542

Desired Output	Predict	Error
315	321.49964002	-6.5
208	321.49992767	-113.5
211	321.49995545	-110.5
178	321.50641916	-143.51
451	321.49987604	129.5
225	321.50006013	-96.5
209	321.49998478	-112.5
305	321.49969968	-16.5
328	321.49962713	6.5
240	321.49982635	-81.5
252	321.49964881	-69.5
481	321.49978193	159.5
214	321.49996638	-107.5
470	321.49986520	148.5
322	321.49976010	0.5
235	321.49976576	-86.5
465	321.49956317	143.5
320	321.49970021	-1.5
265	321.49968524	-56.5
311	321.49972736	-10.5
305	321.49971948	-16.5
315	321.49971866	-6.5
309	321.49971992	-12.5
341	321.49978909	19.5
468	321.49987942	146.5
209	321.49998430	-112.5
239	321.49979640	-82.5
288	321.49966473	-33.5
420	321.49986513	98.5
292	321.49971458	-29.5
300	321.49972491	-21.5

Mean Square Error = 7761.826455

Desired Output	Predict	Error
331	318.93305152	12.07
270	299.42748085	-29.43

481	321.22824580	159.77
290	307.84332753	-17.84
468	321.16249911	146.84
445	320.91913129	124.08
430	320.96485090	109.04
291	317.36475458	-26.36
478	321.23558318	156.76
360	320.54278978	39.46
404	320.83979869	83.16
294	317.16802633	-23.17
250	311.42781165	-61.43
208	254.40529120	-46.41
353	320.31259249	32.69
329	319.89889563	9.1
397	320.89495704	76.11
471	321.17671499	149.82
422	320.93303702	101.07
280	295.12084159	-15.12
326	316.81595104	9.18
303	314.44883272	-11.45
268	314.96843764	-46.97
288	316.71464934	-28.71
441	321.04442076	119.96
246	303.40226857	-57.4
460	321.08710657	138.91
382	320.73153967	61.27
217	258.72332467	-41.72
251	311.84065913	-60.84
374	320.51618071	53.48

Mean Square Error = 6710.542419

***** Mean Square Error Average : 14778.8734 *****
5624.678126

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.78

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
251	321.51223743	-70.51
486	321.50743470	164.49
328	321.50951600	6.49
271	321.51086184	-50.51
238	321.51589394	-83.52
156	321.55792309	-165.56
236	321.51564678	-85.52
398	321.50967823	76.49
436	321.50755419	114.49
435	321.50904101	113.49
467	321.50749445	145.49
325	321.50858432	3.49
288	321.51030902	-33.51
314	321.51495392	-7.51
311	321.50887192	-10.51

468	321.50743355	146.49
360	321.51315272	38.49
454	321.50786164	132.49
490	321.50741264	168.49
302	321.51046383	-19.51
288	321.51038933	-33.51
294	321.50969588	-27.51
255	321.51856911	-66.52
356	321.50796609	34.49
209	321.52244179	-112.52
370	321.50801457	48.49
276	321.51059338	-45.51
437	321.50757494	115.49
328	321.51549904	6.48
393	321.50780497	71.49
448	321.50749087	126.49

Mean Square Error = 8353.584132

Desired Output	Predict	Error
462	321.49999998	140.5
215	321.49999831	-106.5
260	321.49999935	-61.5
345	321.49999995	23.5
241	321.49999923	-80.5
326	321.49999982	4.5
232	321.49999916	-89.5
293	321.49999990	-28.5
246	321.49999958	-75.5
305	321.49999991	-16.5
484	321.49999998	162.5
410	321.49999996	88.5
385	321.49999996	63.5
468	321.49999998	146.5
280	321.49999986	-41.5
489	321.49999998	167.5
470	321.49999998	148.5
164	321.49551984	-157.5
290	321.49999988	-31.5
344	321.49999995	22.5
329	321.49999994	7.5
365	321.49999995	43.5
333	321.49999991	11.5
490	321.49999998	168.5
470	321.49999998	148.5
465	321.49999997	143.5
239	321.49999938	-82.5
455	321.49999997	133.5
451	321.49999998	129.5
297	321.49999942	-24.5
240	321.49999885	-81.5

Mean Square Error = 10204.508065

Desired Output	Predict	Error
361	489.99999991	-129.0
390	489.99999991	-100.0
237	489.99999990	-253.0
212	489.99999991	-278.0

225	489.99999991	-265.0
250	489.99999991	-240.0
208	489.99999991	-282.0
376	489.99999991	-114.0
284	489.99999991	-206.0
467	489.99999991	-23.0
208	489.99999991	-282.0
235	489.99999991	-255.0
160	489.99999990	-330.0
252	489.99999991	-238.0
412	489.99999991	-78.0
209	489.99999991	-281.0
156	489.99999990	-334.0
331	489.99999991	-159.0
298	489.99999991	-192.0
483	489.99999991	-7.0
156	489.99999990	-334.0
308	489.99999991	-182.0
300	489.99999991	-190.0
230	489.99999991	-260.0
315	489.99999991	-175.0
280	489.99999991	-210.0
247	489.99999991	-243.0
231	489.99999991	-259.0
350	489.99999991	-140.0
319	489.99999991	-171.0
234	489.99999991	-256.0

Mean Square Error = 50443.354839

Desired Output	Predict	Error
214	321.52886698	-107.53
490	458.70560978	31.29
413	332.26436900	80.74
475	439.66898810	35.33
246	321.67874848	-75.68
268	322.15083623	-54.15
450	381.31243498	68.69
470	416.77954509	53.22
259	322.18859500	-63.19
211	321.53954844	-110.54
377	331.72245622	45.28
153	321.50152975	-168.5
325	329.95357554	-4.95
192	321.50110348	-129.5
234	321.55881505	-87.56
469	415.71709707	53.28
300	321.68238693	-21.68
333	327.35530114	5.64
230	321.52915567	-91.53
153	321.50140332	-168.5
368	329.95306305	38.05
153	321.50155285	-168.5
305	323.95312302	-18.95
490	459.33186158	30.67
248	321.80781869	-73.81
153	321.50158785	-168.5
274	322.16381546	-48.16
245	321.58188917	-76.58
288	322.45385288	-34.45

370		325.76000315		44.24
466		406.29428246		59.71

Mean Square Error = 7342.55131

Desired Output		Predict		Error
320		321.00775702		-1.01
315		321.03728944		-6.04
490		321.48160367		168.52
156		169.55441070		-13.55
235		282.60242058		-47.6
294		320.33818198		-26.34
481		321.48093940		159.52
245		292.38226840		-47.38
231		292.66021280		-61.66
340		314.78510752		25.21
270		251.24134134		18.76
153		162.60036686		-9.6
218		266.74167122		-48.74
469		321.46184554		147.54
250		298.91811301		-48.92
444		321.44328767		122.56
265		318.94614317		-53.95
396		321.37998557		74.62
471		321.46614622		149.53
485		321.48053606		163.52
215		274.45862569		-59.46
307		320.87104507		-13.87
214		278.28701676		-64.29
211		280.60601318		-69.61
213		279.21246914		-66.21
154		166.24614353		-12.25
390		321.04052713		68.96
256		318.64364287		-62.64
155		167.70634783		-12.71
488		321.47962464		166.52
221		265.45367267		-44.45

Mean Square Error = 7066.878039

Desired Output		Predict		Error
209		153.00000274		56.0
333		153.00000322		180.0
420		153.00000390		267.0
303		153.00000347		150.0
351		153.00000412		198.0
489		153.00000411		336.0
300		153.00000337		147.0
444		153.00000431		291.0
303		153.00000302		150.0
478		153.00000426		325.0
440		153.00000450		287.0
317		153.00000356		164.0
323		153.00000373		170.0
209		153.00000274		56.0
420		153.00000446		267.0
471		153.00000441		318.0
427		153.00000451		274.0
188		153.00000281		35.0

317		153.00000359		164.0
362		153.00000320		209.0
232		153.00000289		79.0
311		153.00000349		158.0
244		153.00000298		91.0
470		153.00000441		317.0
412		153.00000343		259.0
168		153.00000281		15.0
291		153.00000329		138.0
270		153.00000292		117.0
470		153.00000434		317.0
303		153.00000338		150.0
380		153.00000358		227.0

Mean Square Error = 44869.806452

Desired Output		Predict		Error
308		153.13444251		154.87
381		153.13438720		227.87
308		153.13443071		154.87
319		153.13442335		165.87
322		153.13442076		168.87
327		153.13447774		173.87
450		153.13439526		296.87
178		153.13489945		24.87
456		153.13436339		302.87
405		153.13444854		251.87
330		153.13447691		176.87
153		153.13492068		-0.13
397		153.13438177		243.87
309		153.13443899		155.87
249		153.13453037		95.87
310		153.13444084		156.87
457		153.13436715		303.87
240		153.13456368		86.87
247		153.13454563		93.87
472		153.13440849		318.87
341		153.13440741		187.87
478		153.13438952		324.87
313		153.13443223		159.87
360		153.13438626		206.87
447		153.13444374		293.87
486		153.13436174		332.87
314		153.13457388		160.87
306		153.13443621		152.87
252		153.13451238		98.87
424		153.13437351		270.87
337		153.13440974		183.87

Mean Square Error = 43930.67561

Desired Output		Predict		Error
488		489.99998388		-2.0
468		489.99998385		-22.0
470		489.99998285		-20.0
238		489.99998039		-252.0
253		489.99998174		-237.0
464		489.99998397		-26.0
208		489.99998025		-282.0

242	489.99998101	-248.0
296	489.99998243	-194.0
445	489.99998317	-45.0
490	489.99998393	0.0
210	489.99998023	-280.0
460	489.99998347	-30.0
214	489.99998022	-276.0
172	489.99997561	-318.0
327	489.99998300	-163.0
339	489.99998320	-151.0
490	489.99998390	0.0
245	489.99998117	-245.0
215	489.99998022	-275.0
224	489.99997688	-266.0
291	489.99998219	-199.0
441	489.99998381	-49.0
417	489.99998363	-73.0
428	489.99998286	-62.0
460	489.99998396	-30.0
294	489.99998226	-196.0
307	489.99998251	-183.0
315	489.99998208	-175.0
404	489.99998365	-86.0
286	489.99998222	-204.0

Mean Square Error = 32836.096774

Desired Output	Predict	Error
322	321.50234778	0.5
230	321.50552138	-91.51
382	321.50137508	60.5
475	321.50097402	153.5
216	321.50706943	-105.51
471	321.50108159	149.5
457	321.50121818	135.5
465	321.50110769	143.5
447	321.50116471	125.5
335	321.50164085	13.5
243	321.50497888	-78.5
374	321.50146712	52.5
481	321.50101416	159.5
217	321.50713382	-104.51
259	321.50785976	-62.51
490	321.50097826	168.5
353	321.50155873	31.5
233	321.50538556	-88.51
433	321.50122130	111.5
422	321.50125566	100.5
405	321.50135799	83.5
236	321.50555710	-85.51
215	321.50704287	-106.51
294	321.50224136	-27.5
401	321.50132945	79.5
253	321.50309302	-68.5
410	321.50129477	88.5
209	321.50688717	-112.51
305	321.50213515	-16.5
340	321.50257515	18.5
292	321.50239215	-29.5

Mean Square Error = 9428.2868

Desired Output	Predict	Error
349	321.49997562	27.5
262	321.49994457	-59.5
431	321.49998416	109.5
427	321.49998323	105.5
153	321.49774323	-168.5
246	321.49939639	-75.5
416	321.49998297	94.5
165	321.49834962	-156.5
459	321.49998560	137.5
390	321.49995954	68.5
290	321.49995603	-31.5
315	321.49996949	-6.5
390	321.49998045	68.5
153	321.49768738	-168.5
328	321.49997256	6.5
234	321.49987237	-87.5
247	321.49992101	-74.5
210	321.49983001	-111.5
357	321.49997663	35.5
438	321.49997780	116.5
153	321.49765305	-168.5
213	321.49983449	-108.5
209	321.49982906	-112.5
430	321.49998363	108.5
296	321.49996130	-25.5
207	321.49895349	-114.5
232	321.49987293	-89.5
290	321.49982621	-31.5
465	321.49998343	143.5
322	321.49996587	0.5
240	321.49987164	-81.5

Mean Square Error = 9927.540323

***** Mean Square Error Average : 22440.3282 *****
7066.878039

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.79

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
360	321.64639426	38.35
361	321.65319269	39.35
153	322.96144708	-169.96
412	321.67444156	90.33
459	321.62635563	137.37
396	321.63831257	74.36
380	321.71616707	58.28
475	321.61899354	153.38
230	321.81415877	-91.81

424	321.63516863	102.36
435	321.67450341	113.33
209	321.88066425	-112.88
322	321.70703427	0.29
471	321.62708205	149.37
339	321.65558283	17.34
450	321.62778412	128.37
306	321.68205835	-15.68
438	321.65399584	116.35
481	321.62666216	159.37
294	321.69641501	-27.7
240	321.81996739	-81.82
420	321.66848841	98.33
326	321.75627055	4.24
468	321.61979529	146.38
417	321.63805104	95.36
390	321.70757097	68.29
247	321.76126317	-74.76
268	321.71784120	-53.72
353	321.65586999	31.34
405	321.63974659	83.36
305	321.68708246	-16.69

Mean Square Error = 9134.498497

Desired Output	Predict	Error
456	321.49999984	134.5
390	321.49999965	68.5
218	321.49999533	-103.5
430	321.49999983	108.5
214	321.49999648	-107.5
238	321.49999690	-83.5
416	321.49999982	94.5
259	321.49990847	-62.5
154	321.35866165	-167.36
335	321.49999977	13.5
234	321.49999820	-87.5
153	321.31611206	-168.32
315	321.49999962	-6.5
245	321.49999874	-76.5
153	321.28903817	-168.29
344	321.49999978	22.5
390	321.49999981	68.5
244	321.49999862	-77.5
233	321.49999808	-88.5
235	321.49999668	-86.5
234	321.49999850	-87.5
153	321.28330579	-168.28
293	321.49999964	-28.5
232	321.49999793	-89.5
209	321.49999633	-112.5
490	321.49999985	168.5
172	321.43956795	-149.44
333	321.49999968	11.5
291	321.49999963	-30.5
489	321.49999985	167.5
314	321.49999868	-7.5

Mean Square Error = 10932.241552

Desired Output	Predict	Error
297	489.39067742	-192.39
469	489.38979863	-20.39
292	489.38981597	-197.39
440	489.38965947	-49.39
467	489.38992583	-22.39
213	489.38984806	-276.39
225	489.38969392	-264.39
486	489.39044643	-3.39
246	489.38990473	-243.39
241	489.38971878	-248.39
328	489.39029045	-161.39
376	489.38964498	-113.39
328	489.38995353	-161.39
290	489.39026263	-199.39
230	489.38974344	-259.39
238	489.38981923	-251.39
270	489.38998111	-219.39
305	489.38985164	-184.39
433	489.38966034	-56.39
156	489.38937244	-333.39
350	489.39003757	-139.39
420	489.38963738	-69.39
271	489.38985127	-218.39
445	489.38996121	-44.39
450	489.38994484	-39.39
211	489.38986037	-278.39
381	489.38969240	-108.39
280	489.38982789	-209.39
490	489.39029018	0.61
251	489.39006246	-238.39
360	489.39013611	-129.39

Mean Square Error = 34204.784358

Desired Output	Predict	Error
478	153.00255321	325.0
340	153.00207500	187.0
294	153.00219603	141.0
447	153.00244795	294.0
247	153.00187671	94.0
259	153.00210432	106.0
256	153.00209377	103.0
470	153.00254974	317.0
470	153.00253430	317.0
317	153.00231471	164.0
308	153.00231193	155.0
478	153.00255204	325.0
330	153.00223791	177.0
490	153.00256319	337.0
153	153.00046046	-0.0
470	153.00253589	317.0
345	153.00241198	192.0
433	153.00242289	280.0
356	153.00244350	203.0
243	153.00175174	90.0
288	153.00220051	135.0
153	153.00045999	-0.0
390	153.00247294	237.0

236	153.00176830	83.0
465	153.00248970	312.0
296	153.00227244	143.0
444	153.00251403	291.0
245	153.00182575	92.0
216	153.00138739	63.0
153	153.00046314	-0.0
214	153.00141652	61.0

Mean Square Error = 43386.677419

Desired Output	Predict	Error
262	321.49997091	-59.5
322	321.49998186	0.5
333	321.49998265	11.5
490	321.49998816	168.5
472	321.49998750	150.5
325	321.49998213	3.5
341	321.49998311	19.5
156	321.47657280	-165.48
462	321.49998739	140.5
490	321.49998817	168.5
217	321.49990654	-104.5
240	321.49992369	-81.5
431	321.49998680	109.5
291	321.49997625	-30.5
311	321.49998081	-10.5
208	321.49992422	-113.5
303	321.49997923	-18.5
236	321.49993729	-85.5
444	321.49998725	122.5
253	321.49996914	-68.5
215	321.49991016	-106.5
322	321.49997952	0.5
247	321.49995897	-74.5
239	321.49994552	-82.5
410	321.49998541	88.5
460	321.49998778	138.5
252	321.49996832	-69.5
290	321.49997493	-31.5
365	321.49998426	43.5
329	321.49998294	7.5
307	321.49997926	-14.5

Mean Square Error = 8391.7784

Desired Output	Predict	Error
286	275.83737797	10.16
405	320.68936131	84.31
393	320.68259240	72.32
164	159.36413404	4.64
340	259.59327082	80.41
470	321.44725699	148.55
448	321.33571093	126.66
232	209.44931361	22.55
401	320.95249087	80.05
303	308.45215566	-5.45
327	313.04482420	13.96
232	209.11550360	22.88

486	321.47817498	164.52
370	315.96407198	54.04
374	319.55668406	54.44
447	321.34763430	125.65
488	321.48342912	166.52
455	321.38674227	133.61
404	320.73297160	83.27
471	321.45359719	149.55
311	311.27668383	-0.28
188	163.87695689	24.12
490	321.48492427	168.52
437	321.25627743	115.74
331	317.91703056	13.08
328	318.00332278	10.0
215	207.64271493	7.36
484	321.47595494	162.52
349	318.33191042	30.67
490	321.48538581	168.51
178	161.74838391	16.25

Mean Square Error = 9259.247681

Desired Output	Predict	Error
252	321.49887871	-69.5
475	321.49966564	153.5
160	321.51745426	-161.52
490	321.49969101	168.5
210	321.49777099	-111.5
250	321.49884939	-71.5
255	321.49811736	-66.5
208	321.49782800	-113.5
481	321.49968205	159.5
368	321.49952663	46.5
323	321.49939380	1.5
427	321.49960624	105.5
357	321.49947847	35.5
313	321.49933022	-8.5
284	321.49907614	-37.5
209	321.49774621	-112.5
231	321.49803416	-90.5
212	321.49779591	-109.5
215	321.49762806	-106.5
156	321.51807283	-165.52
298	321.49923163	-23.5
210	321.49777926	-111.5
245	321.49794195	-76.5
465	321.49964854	143.5
288	321.49826534	-33.5
242	321.49816795	-79.5
153	321.52046443	-168.52
231	321.49803574	-90.5
214	321.49772564	-107.5
246	321.49846265	-75.5
156	321.51791670	-165.52

Mean Square Error = 11576.973923

Desired Output	Predict	Error
427	321.50000538	105.5

290	321.50000965	-31.5
413	321.50000574	91.5
300	321.50000866	-21.5
270	321.50015040	-51.5
436	321.50000518	114.5
315	321.50000753	-6.5
250	321.50003167	-71.5
300	321.50000850	-21.5
471	321.50000493	149.5
234	321.50003076	-87.5
253	321.50001259	-68.5
489	321.50000469	167.5
276	321.50001107	-45.5
468	321.50000492	146.5
280	321.50007589	-41.5
441	321.50000517	119.5
467	321.50000493	145.5
215	321.50004601	-106.5
377	321.50000602	55.5
308	321.50000965	-13.5
248	321.50001554	-73.5
294	321.50000895	-27.5
451	321.50000491	129.5
249	321.50001420	-72.5
337	321.50000678	15.5
315	321.50000757	-6.5
302	321.50000980	-19.5
288	321.50000983	-33.5
209	321.50004464	-112.5
385	321.50000584	63.5

Mean Square Error = 7324.508065

Desired Output	Predict	Error
465	321.49995633	143.5
260	321.49967058	-61.5
303	321.49975572	-18.5
457	321.49995999	135.5
155	321.46286125	-166.46
428	321.49993659	106.5
224	321.48670165	-97.49
209	321.49946979	-112.5
351	321.49993951	29.5
265	321.49985957	-56.5
300	321.49970868	-21.5
483	321.49996520	161.5
305	321.49991024	-16.5
319	321.49992476	-2.5
471	321.49996164	149.5
397	321.49994738	75.5
460	321.49995471	138.5
468	321.49996040	146.5
307	321.49990936	-14.5
209	321.49947036	-112.5
207	321.48231004	-114.48
240	321.49966389	-81.5
370	321.49994154	48.5
294	321.49989661	-27.5
221	321.49936113	-100.5
213	321.49949808	-108.5

398		321.49991177		76.5
230		321.49939521		-91.5
315		321.49991300		-6.5
325		321.49991514		3.5
208		321.49950118		-113.5

Mean Square Error = 9310.512971

Desired Output		Predict		Error
309		321.49979476		-12.5
328		321.49978731		6.5
464		321.49971028		142.5
422		321.49975603		100.5
466		321.49971736		144.5
314		321.49974971		-7.5
488		321.49968568		166.5
153		321.49424528		-168.49
168		321.49582023		-153.5
308		321.49979736		-13.5
317		321.49979201		-4.5
457		321.49973057		135.5
485		321.49966458		163.5
410		321.49976094		88.5
320		321.49978608		-1.5
192		321.49670155		-129.5
469		321.49971273		147.5
319		321.49979372		-2.5
165		321.49566241		-156.5
310		321.49979474		-11.5
274		321.49980248		-47.5
288		321.49980286		-33.5
470		321.49971044		148.5
327		321.49978972		5.5
470		321.49971465		148.5
235		321.49977941		-86.5
362		321.49976257		40.5
412		321.49973798		90.5
333		321.49978398		11.5
454		321.49973487		132.5
296		321.49979561		-25.5

Mean Square Error = 10666.657423

***** Mean Square Error Average : 15418.788 *****
7324.508065

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.8

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
470		321.51002525		148.49
240		321.51488731		-81.51
365		321.51013446		43.49

313	321.51073178	-8.51
333	321.51147479	11.49
215	321.51666307	-106.52
467	321.50970375	145.49
153	321.50835892	-168.51
249	321.51275413	-72.51
362	321.51222725	40.49
240	321.51411409	-81.51
290	321.51158042	-31.51
239	321.51427268	-82.51
370	321.51010279	48.49
471	321.50974787	149.49
214	321.51665968	-107.52
323	321.51044220	1.49
329	321.51031747	7.49
280	321.52113307	-41.52
209	321.51676802	-112.52
420	321.51056187	98.49
368	321.50998899	46.49
464	321.50965051	142.49
328	321.51104450	6.49
262	321.51195313	-59.51
331	321.51125152	9.49
490	321.50962930	168.49
469	321.50970298	147.49
351	321.51010387	29.49
213	321.51667877	-108.52
208	321.51635304	-113.52

Mean Square Error = 8879.231126

Desired Output	Predict	Error
444	321.49884711	122.5
231	321.46792159	-90.47
291	321.49523152	-30.5
320	321.49642887	-1.5
232	321.46874180	-89.47
475	321.49954351	153.5
322	321.49676964	0.5
214	321.45794096	-107.46
259	321.49239727	-62.49
240	321.46498149	-81.46
317	321.49622339	-4.5
390	321.49633920	68.5
427	321.49831085	105.5
397	321.49781283	75.5
308	321.49554095	-13.5
444	321.49872003	122.5
345	321.49718361	23.5
490	321.49949092	168.5
465	321.49937888	143.5
468	321.49947230	146.5
300	321.48224744	-21.48
454	321.49858418	132.5
306	321.49581303	-15.5
325	321.49684791	3.5
307	321.49623958	-14.5
237	288.15074517	-51.15
489	321.49946206	167.5
156	161.56662815	-5.57

247		321.48667297		-74.49
448		321.49897169		126.5
349		321.49722471		27.5

Mean Square Error = 8290.357516

Desired Output		Predict		Error
212		321.49973094		-109.5
471		321.49997869		149.5
284		321.49994351		-37.5
447		321.49997803		125.5
246		321.49988484		-75.5
209		321.49971789		-112.5
235		321.49974008		-86.5
385		321.49997364		63.5
154		321.48824135		-167.49
322		321.49994789		0.5
213		321.49973093		-108.5
396		321.49997513		74.5
290		321.49994705		-31.5
268		321.49993522		-53.5
335		321.49996865		13.5
360		321.49997261		38.5
356		321.49997196		34.5
462		321.49997872		140.5
435		321.49996669		113.5
245		321.49987459		-76.5
153		321.48707672		-168.49
344		321.49997046		22.5
433		321.49997714		111.5
441		321.49997765		119.5
390		321.49997405		68.5
292		321.49994950		-29.5
380		321.49994023		58.5
271		321.49993669		-50.5
381		321.49997323		59.5
155		321.48848656		-166.49
172		321.49020227		-149.49

Mean Square Error = 9441.184206

Desired Output		Predict		Error
485		321.50160209		163.5
303		321.50600710		-18.51
472		321.50288514		150.5
450		321.50149674		128.5
393		321.50115588		71.5
327		321.50254966		5.5
243		321.50334036		-78.5
294		321.50204596		-27.5
209		321.50574537		-112.51
153		321.52262922		-168.52
217		321.50533492		-104.51
350		321.50348746		28.5
376		321.50108654		54.5
230		321.50380816		-91.5
422		321.50103743		100.5
488		321.50151489		166.5
470		321.50124575		148.5

330	321.50257889	8.5
188	321.51940798	-133.52
401	321.50113571	79.5
305	321.50179557	-16.5
231	321.50374020	-90.5
270	321.51197950	-51.51
238	321.50525735	-83.51
241	321.50336963	-80.5
164	321.52081235	-157.52
308	321.50182466	-13.5
333	321.50144146	11.5
300	321.50173769	-21.5
311	321.50173864	-10.5
357	321.50129296	35.5

Mean Square Error = 8969.598119

Desired Output	Predict	Error
236	321.49999624	-85.5
250	321.49999839	-71.5
416	321.49999974	94.5
248	321.49999802	-73.5
236	321.49999430	-85.5
417	321.49999972	95.5
436	321.49999977	114.5
450	321.49999978	128.5
490	321.49999983	168.5
481	321.49999983	159.5
470	321.49999979	148.5
234	321.49999431	-87.5
311	321.49999942	-10.5
294	321.49999902	-27.5
315	321.49999945	-6.5
483	321.49999982	161.5
274	321.49999882	-47.5
156	321.49309447	-165.49
470	321.49999982	148.5
238	321.49999593	-83.5
327	321.49999953	5.5
209	321.49999033	-112.5
230	321.49999432	-91.5
247	321.49999777	-74.5
252	321.49999845	-69.5
247	321.49999743	-74.5
430	321.49999975	108.5
294	321.49999918	-27.5
412	321.49999942	90.5
153	321.48989378	-168.49
315	321.49999909	-6.5

Mean Square Error = 10585.389361

Desired Output	Predict	Error
245	489.98393592	-244.98
210	489.98393044	-279.98
245	489.98394794	-244.98
297	489.98394152	-192.98
468	489.98398121	-21.98
437	489.98398004	-52.98

468	489.98398188	-21.98
428	489.98397498	-61.98
230	489.98392884	-259.98
303	489.98396944	-186.98
307	489.98396949	-182.98
153	489.98369842	-336.98
465	489.98398110	-24.98
404	489.98397873	-85.98
156	489.98372634	-333.98
234	489.98394295	-255.98
447	489.98397656	-42.98
252	489.98395894	-237.98
374	489.98397665	-115.98
251	489.98395816	-238.98
153	489.98369379	-336.98
488	489.98398235	-1.98
466	489.98398010	-23.98
160	489.98372818	-329.98
221	489.98392759	-268.98
470	489.98398123	-19.98
250	489.98393837	-239.98
353	489.98397539	-136.98
457	489.98398084	-32.98
280	489.98396402	-209.98
490	489.98398245	0.02

Mean Square Error = 39493.448142

Desired Output	Predict	Error
255	321.50112714	-66.5
410	321.50057466	88.5
253	321.50076681	-68.5
192	321.50955519	-129.51
451	321.50056158	129.5
303	321.50066067	-18.5
390	321.50057985	68.5
246	321.50539103	-75.51
328	321.50096825	6.5
490	321.50055625	168.5
288	321.50070201	-33.5
475	321.50055811	153.5
265	321.50074549	-56.5
153	321.44723415	-168.45
339	321.50060143	17.5
294	321.50067642	-27.5
361	321.50059631	39.5
341	321.50060781	19.5
270	321.50105333	-51.5
326	321.50081050	4.5
410	321.50058233	88.5
467	321.50056714	145.5
302	321.50070188	-19.5
337	321.50061035	15.5
210	321.50136845	-111.5
360	321.50083095	38.5
218	321.50146856	-103.5
256	321.50076048	-65.5
232	321.50110321	-89.5
296	321.50066875	-25.5
459	321.50056361	137.5

Mean Square Error = 7667.580732

Desired Output	Predict	Error
405	321.46364779	83.54
296	321.45598347	-25.46
486	321.47407086	164.53
309	321.45951306	-12.46
445	321.47010426	123.53
253	321.43256013	-68.43
259	309.36230433	-50.36
438	321.46940231	116.53
457	321.47171424	135.53
208	321.18251702	-113.18
215	321.11496321	-106.11
460	321.47364156	138.53
234	321.34215608	-87.34
322	321.46048026	0.54
288	321.35195835	-33.35
298	321.45647539	-23.46
328	321.46062591	6.54
424	321.47072615	102.53
310	321.45783775	-11.46
319	321.46166143	-2.46
208	321.15548769	-113.16
156	161.88373206	-5.88
340	321.44662172	18.55
490	321.47415514	168.53
215	321.08920663	-106.09
455	321.47280458	133.53
390	321.46001627	68.54
224	170.66283572	53.34
486	321.47410728	164.53
431	321.47181041	109.53
308	321.45889913	-13.46

Mean Square Error = 8709.177042

Desired Output	Predict	Error
216	489.99993196	-274.0
153	489.99994301	-337.0
211	489.99993238	-279.0
209	489.99993229	-281.0
315	489.99992408	-175.0
484	489.99992815	-6.0
489	489.99993267	-1.0
244	489.99992834	-246.0
469	489.99992819	-21.0
315	489.99992307	-175.0
460	489.99992806	-30.0
333	489.99992883	-157.0
405	489.99991908	-85.0
456	489.99992338	-34.0
290	489.99993710	-200.0
490	489.99993210	0.0
314	489.99993020	-176.0
478	489.99993953	-12.0
398	489.99993008	-92.0
225	489.99993215	-265.0

471	489.99992671	-19.0
481	489.99993775	-9.0
478	489.99992700	-12.0
314	489.99993397	-176.0
305	489.99992452	-185.0
178	489.99994226	-312.0
242	489.99992847	-248.0
300	489.99992513	-190.0
465	489.99992815	-25.0
328	489.99992205	-162.0
153	489.99994303	-337.0

Mean Square Error = 33954.935484

Desired Output	Predict	Error
370	321.51556873	48.48
209	321.51203451	-112.51
325	321.51627828	3.48
207	321.50330129	-114.5
382	321.51662672	60.48
305	321.51621596	-16.52
215	321.51182780	-106.51
276	321.51580448	-45.52
412	321.51641551	90.48
288	321.51596680	-33.52
317	321.51638233	-4.52
235	321.51378849	-86.51
165	321.51057343	-156.51
232	321.51206507	-89.51
286	321.51594438	-35.52
214	321.51202600	-107.51
377	321.51659750	55.48
211	321.51219278	-110.51
260	321.51361596	-61.51
470	321.51670041	148.48
233	321.51353227	-88.51
413	321.51663545	91.48
440	321.51668739	118.48
319	321.51640566	-2.52
471	321.51669933	149.48
288	321.51599533	-33.52
168	321.50952194	-153.51
433	321.51654845	111.48
291	321.51605957	-30.52
490	321.51671364	168.48
340	321.51458423	18.49

Mean Square Error = 8648.615119

***** Mean Square Error Average : 14463.9517 *****
7667.580732

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.81

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
153	321.34843531	-168.35
237	321.49240668	-84.49
271	321.50027457	-50.5
325	321.50021245	3.5
469	321.50013518	147.5
433	321.50016945	111.5
236	321.50055681	-85.5
156	321.37290451	-165.37
455	321.50013289	133.5
260	321.50053946	-61.5
481	321.50012896	159.5
153	321.32037519	-168.32
209	321.50070935	-112.5
211	321.50069202	-110.5
427	321.50013767	105.5
376	321.50015020	54.5
156	321.38319103	-165.38
362	321.50027422	40.5
472	321.50013574	150.5
210	321.50070548	-111.5
422	321.50013898	100.5
478	321.50013047	156.5
270	321.50105320	-51.5
305	321.50021465	-16.5
351	321.50015967	29.5
235	321.50069380	-86.5
447	321.50013405	125.5
468	321.50014674	146.5
325	321.50018221	3.5
436	321.50013524	114.5
374	321.50015648	52.5

Mean Square Error = 12395.683429

Desired Output	Predict	Error
234	321.50665629	-87.51
478	321.50113684	156.5
486	321.50113043	164.5
353	321.50169025	31.5
357	321.50166043	35.5
308	321.50217139	-13.5
224	321.56030184	-97.56
298	321.50253303	-23.5
217	321.51059195	-104.51
317	321.50207041	-4.5
280	321.51681926	-41.52
293	321.50268827	-28.5
214	321.51014948	-107.51
328	321.50189292	6.5
328	321.50589660	6.49
288	321.50290187	-33.5
485	321.50120420	163.5
370	321.50391486	48.5
311	321.50210161	-10.5
232	321.51016658	-89.51
465	321.50137866	143.5
337	321.50181958	15.5

297	321.50876775	-24.51
405	321.50233364	83.5
460	321.50141710	138.5
153	321.59105352	-168.59
412	321.50258367	90.5
255	321.50772750	-66.51
290	321.51218399	-31.51
153	321.59109060	-168.59
248	321.50445271	-73.5

Mean Square Error = 8342.190032

Desired Output	Predict	Error
483	321.50728147	161.49
327	321.51153588	5.49
246	321.51809726	-75.52
232	321.52173060	-89.52
314	321.51530082	-7.52
231	321.52183509	-90.52
349	321.51097640	27.49
307	321.51256637	-14.51
207	321.53925513	-114.54
156	321.35450202	-165.35
314	321.51887846	-7.52
210	321.52490971	-111.52
385	321.51013845	63.49
270	321.51985682	-51.52
319	321.51178209	-2.51
490	321.50719066	168.49
245	321.51888856	-76.52
333	321.51130122	11.49
291	321.51316169	-30.51
360	321.51557987	38.48
240	321.52351090	-81.52
168	321.41367293	-153.41
230	321.52587272	-91.53
153	321.26587578	-168.27
296	321.51270406	-25.51
218	321.52699790	-103.53
280	321.51422337	-41.51
294	321.51291625	-27.51
209	321.52532873	-112.53
303	321.51661331	-18.52
234	321.52024483	-87.52

Mean Square Error = 7963.325929

Desired Output	Predict	Error
214	153.00599734	60.99
424	153.00412060	271.0
249	153.00498906	96.0
398	153.00460658	245.0
445	153.00426184	292.0
294	153.00462356	141.0
245	153.00587669	91.99
471	153.00423870	318.0
215	153.00599034	61.99
315	153.00431940	162.0
236	153.00533296	82.99

153	153.00690664	-0.01
435	153.00484703	282.0
468	153.00422694	315.0
305	153.00437641	152.0
327	153.00467598	174.0
410	153.00409089	257.0
240	153.00539724	86.99
172	153.00685764	18.99
326	153.00541391	172.99
303	153.00428607	150.0
470	153.00422868	317.0
430	153.00413595	277.0
404	153.00411425	251.0
431	153.00414450	278.0
322	153.00467217	169.0
470	153.00423560	317.0
330	153.00467352	177.0
317	153.00433252	164.0
213	153.00600071	59.99
276	153.00454533	123.0

Mean Square Error = 41294.976158

Desired Output	Predict	Error
416	321.50074725	94.5
313	321.50119518	-8.5
178	321.53522968	-143.54
209	321.50522782	-112.51
238	321.50310662	-83.5
470	321.50100199	148.5
291	321.50152589	-30.5
390	321.50078793	68.5
481	321.50067595	159.5
323	321.50104342	1.5
417	321.50076924	95.5
322	321.50132180	0.5
475	321.50087942	153.5
288	321.50145767	-33.5
211	321.50521040	-110.51
465	321.50117737	143.5
356	321.50085718	34.5
428	321.50109158	106.5
268	321.50173797	-53.5
484	321.50067428	162.5
242	321.50304622	-79.5
433	321.50073183	111.5
454	321.50088416	132.5
308	321.50127935	-13.5
322	321.50109512	0.5
450	321.50071441	128.5
216	321.50513799	-105.51
232	321.50359178	-89.5
464	321.50067955	142.5
380	321.50193959	58.5
344	321.50089982	22.5

Mean Square Error = 9907.929094

Desired Output	Predict	Error
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246	489.99705643	-244.0
231	489.99718181	-259.0
208	489.99726405	-282.0
213	489.99724666	-277.0
466	489.99593076	-24.0
250	489.99713552	-240.0
309	489.99661811	-181.0
188	489.99804637	-302.0
164	489.99809132	-326.0
397	489.99626469	-93.0
160	489.99809730	-330.0
259	489.99686594	-231.0
288	489.99707921	-202.0
490	489.99542566	0.0
214	489.99725410	-276.0
420	489.99634830	-70.0
444	489.99604520	-46.0
328	489.99654588	-162.0
448	489.99597815	-42.0
153	489.99813326	-337.0
470	489.99583211	-20.0
441	489.99607908	-49.0
294	489.99674813	-196.0
457	489.99595597	-33.0
209	489.99725690	-281.0
396	489.99629353	-94.0
460	489.99578133	-30.0
154	489.99811383	-336.0
246	489.99767950	-244.0
311	489.99660912	-179.0
310	489.99664549	-180.0

Mean Square Error = 44375.677419

Desired Output	Predict	Error
459	321.50013697	137.5
315	321.50020970	-6.5
244	321.50036747	-77.5
390	321.50015401	68.5
300	321.50019865	-21.5
292	321.50021475	-29.5
247	321.50031400	-74.5
333	321.50019616	11.5
165	321.51709277	-156.52
215	321.50054985	-106.5
241	321.50041917	-80.5
259	321.50205858	-62.5
307	321.50019424	-14.5
209	321.50052466	-112.5
393	321.50015298	71.5
335	321.50017084	13.5
239	321.50038889	-82.5
252	321.50025282	-69.5
341	321.50017104	19.5
471	321.50013584	149.5
315	321.50018453	-6.5
215	321.50055998	-106.5
333	321.50019402	11.5
215	321.50057044	-106.5
381	321.50015672	59.5

235		321.50039525		-86.5
340		321.50031792		18.5
438		321.50015927		116.5
308		321.50021318		-13.5
262		321.50024547		-59.5
410		321.50014824		88.5

Mean Square Error = 6282.839045

Desired Output		Predict		Error
413		321.50637143		91.49
240		321.51186245		-81.51
390		321.50781482		68.49
340		321.50889654		18.49
296		321.50732386		-25.51
208		321.51359614		-113.51
360		321.50642119		38.49
440		321.50624788		118.49
490		321.50591437		168.49
490		321.50599707		168.49
382		321.50635120		60.49
420		321.50633194		98.49
153		321.57910864		-168.58
238		321.51349508		-83.51
315		321.50693327		-6.51
243		321.51070731		-78.51
475		321.50609783		153.49
233		321.51134583		-88.51
467		321.50609667		145.49
253		321.50850936		-68.51
303		321.50730241		-18.51
329		321.50666167		7.49
350		321.50988969		28.49
490		321.50591636		168.49
319		321.50684532		-2.51
390		321.50763241		68.49
221		321.51448124		-100.51
405		321.50640453		83.49
471		321.50601824		149.49
328		321.50732908		6.49
437		321.50623582		115.49

Mean Square Error = 9844.867723

Desired Output		Predict		Error
470		489.99999319		-20.0
286		489.99999368		-204.0
230		489.99999410		-260.0
451		489.99999297		-39.0
471		489.99999321		-19.0
247		489.99999397		-243.0
300		489.99999414		-190.0
294		489.99999368		-196.0
489		489.99999301		-1.0
265		489.99999379		-225.0
467		489.99999339		-23.0
468		489.99999317		-22.0
469		489.99999317		-21.0
444		489.99999320		-46.0

401	489.99999347	-89.0
212	489.99999424	-278.0
155	489.99999468	-335.0
320	489.99999370	-170.0
192	489.99999467	-298.0
302	489.99999380	-188.0
225	489.99999424	-265.0
412	489.99999388	-78.0
490	489.99999293	0.0
365	489.99999339	-125.0
250	489.99999389	-240.0
252	489.99999388	-238.0
234	489.99999412	-256.0
427	489.99999324	-63.0
489	489.99999290	-1.0
208	489.99999418	-282.0
290	489.99999372	-200.0

Mean Square Error = 33707.903226

Desired Output	Predict	Error
331	321.50683273	9.49
361	321.50531935	39.49
457	321.50500919	135.49
456	321.50455429	134.5
465	321.50462367	143.5
470	321.50462050	148.5
488	321.50453092	166.5
209	321.51540976	-112.52
253	321.50832464	-68.51
256	321.50808802	-65.51
274	321.50749830	-47.51
156	321.53803558	-165.54
290	321.50729366	-31.51
370	321.50523251	48.49
490	321.50446818	168.5
490	321.50447420	168.5
300	321.50649936	-21.51
306	321.50627827	-15.51
339	321.50539003	17.49
305	321.50651263	-16.51
284	321.50719478	-37.51
345	321.50550867	23.49
488	321.50447497	166.5
251	321.50864696	-70.51
377	321.50515920	55.49
368	321.50506559	46.49
288	321.50727151	-33.51
486	321.50454953	164.5
450	321.50516701	128.49
245	321.51067651	-76.51
153	321.54079785	-168.54

Mean Square Error = 10968.599213

***** Mean Square Error Average : 18508.3991 *****
6282.839045

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.8200000000000001

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
471	321.45602085	149.54
288	222.90583351	65.09
235	210.44125700	24.56
153	159.00184980	-6.0
319	314.34599509	4.65
306	304.35343999	1.65
490	321.48503190	168.51
385	320.50268992	64.5
236	211.04454636	24.96
243	211.19278325	31.81
305	305.66494113	-0.66
286	278.31932537	7.68
454	321.38200524	132.62
280	231.28961493	48.71
290	299.22168445	-9.22
335	316.02599240	18.97
160	161.27852030	-1.28
288	293.90189790	-5.9
300	298.10162351	1.9
390	320.61086761	69.39
153	159.32711703	-6.33
427	321.09310949	105.91
284	276.55263389	7.45
331	317.89280833	13.11
230	210.53260130	19.47
292	284.07290878	7.93
470	321.45613026	148.54
252	260.60216636	-8.6
401	321.04696038	79.95
155	160.69417054	-5.69
462	321.42592929	140.57

Mean Square Error = 4742.644674

Desired Output	Predict	Error
153	321.42020065	-168.42
320	321.49945940	-1.5
303	321.49883634	-18.5
310	321.49945435	-11.5
467	321.49962501	145.5
438	321.49956210	116.5
412	321.49949579	90.5
209	321.49812568	-112.5
303	321.49943561	-18.5
486	321.49965090	164.5
322	321.49945674	0.5
246	321.49898959	-75.5
466	321.49962055	144.5
311	321.49947381	-10.5
208	321.49831445	-113.5
471	321.49963361	149.5

326	321.49914859	4.5
298	321.49942644	-23.5
210	321.49813265	-111.5
270	321.49535199	-51.5
153	321.42168464	-168.42
311	321.49948580	-10.5
341	321.49953763	19.5
333	321.49952708	11.5
303	321.49945057	-18.5
240	321.49832481	-81.5
288	321.49935969	-33.5
188	321.45133008	-133.45
308	321.49936285	-13.5
450	321.49963048	128.5
483	321.49964772	161.5

Mean Square Error = 9261.112752

Desired Output	Predict	Error
234	321.50233672	-87.5
490	321.50010077	168.5
246	321.51404476	-75.51
240	321.50227819	-81.5
472	321.50025569	150.5
489	321.50010793	167.5
465	321.50019726	143.5
457	321.50013010	135.5
410	321.50019691	88.5
448	321.50011888	126.5
255	321.50302851	-66.5
237	321.51657921	-84.52
233	321.50240895	-88.5
430	321.50015435	108.5
225	321.50395183	-96.5
290	321.50086527	-31.5
339	321.50030838	17.5
305	321.50062957	-16.5
436	321.50013862	114.5
213	321.50399085	-108.5
245	321.50343766	-76.5
315	321.50096402	-6.5
256	321.50118900	-65.5
427	321.50015027	105.5
209	321.50408104	-112.5
360	321.50165438	38.5
416	321.50016363	94.5
253	321.50127814	-68.5
290	321.50551754	-31.51
315	321.50059517	-6.5
490	321.50010550	168.5

Mean Square Error = 9913.718406

Desired Output	Predict	Error
293	321.50029559	-28.5
308	321.50026787	-13.5
489	321.50022047	167.5
307	321.50027864	-14.5
456	321.50022305	134.5

333	321.50029808	11.5
217	321.50077292	-104.5
337	321.50025148	15.5
214	321.50075535	-107.5
276	321.50031305	-45.5
433	321.50024973	111.5
238	321.50047131	-83.5
327	321.50030686	5.5
333	321.50030266	11.5
396	321.50023313	74.5
315	321.50026566	-6.5
235	321.50049527	-86.5
471	321.50022427	149.5
381	321.50023736	59.5
250	321.50037003	-71.5
460	321.50023177	138.5
260	321.50056213	-61.5
441	321.50022755	119.5
450	321.50023862	128.5
252	321.50035571	-69.5
413	321.50023378	91.5
405	321.50023734	83.5
490	321.50022006	168.5
153	321.53246037	-168.53
208	321.50075481	-113.5
294	321.50029075	-27.5

Mean Square Error = 9041.285835

Desired Output	Predict	Error
328	489.99999067	-162.0
300	489.99999225	-190.0
325	489.99999122	-165.0
246	489.99999192	-244.0
211	489.99999254	-279.0
451	489.99998908	-39.0
232	489.99999225	-258.0
224	489.99999401	-266.0
469	489.99998960	-21.0
215	489.99999251	-275.0
294	489.99999147	-196.0
156	489.99999398	-334.0
288	489.99999117	-202.0
410	489.99998979	-80.0
325	489.99999069	-165.0
153	489.99999404	-337.0
313	489.99999091	-177.0
468	489.99999148	-22.0
417	489.99998981	-73.0
470	489.99998961	-20.0
302	489.99999150	-188.0
317	489.99999081	-173.0
484	489.99998906	-6.0
447	489.99999215	-43.0
215	489.99999249	-275.0
445	489.99999086	-45.0
457	489.99999055	-33.0
485	489.99998951	-5.0
309	489.99999096	-181.0
178	489.99999396	-312.0

247		489.99999189		-243.0
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Mean Square Error = 37175.516129

Desired Output	Predict	Error
153	201.06132215	-48.06
365	201.45952226	163.54
468	202.55290063	265.45
444	201.90536299	242.09
308	201.38946750	106.61
481	202.83590526	278.16
353	201.44498036	151.56
314	201.28499980	112.72
245	201.24064535	43.76
490	203.23941771	286.76
192	201.07985702	-9.08
241	201.18940884	39.81
444	201.85479948	242.15
274	201.27580204	72.72
294	201.29899507	92.7
468	202.22493783	265.78
433	201.74713869	231.25
164	201.06794788	-37.07
154	201.05563672	-47.06
327	201.37397130	125.63
242	201.20229701	40.8
244	201.22889101	42.77
447	201.89532811	245.1
239	201.23992222	37.76
390	201.52118399	188.48
209	201.29082256	7.71
362	201.54387872	160.46
314	201.46907192	112.53
478	202.76238008	275.24
212	201.29909462	10.7
390	201.60728786	188.39

Mean Square Error = 26926.156374

Desired Output	Predict	Error
329	321.51308323	7.49
459	321.51861012	137.48
424	321.51561583	102.48
345	321.51337538	23.49
319	321.51278500	-2.51
296	321.51219211	-25.51
351	321.51357688	29.49
470	321.52161370	148.48
374	321.51397247	52.49
475	321.52189961	153.48
349	321.51348224	27.49
232	321.51373852	-89.51
330	321.51347888	8.49
470	321.51944790	148.48
245	321.51326569	-76.51
322	321.51300050	0.49
234	321.51439411	-87.51
265	321.51214651	-56.51
259	321.53375148	-62.53

328	321.51365341	6.49
377	321.51418075	55.49
488	321.52349384	166.48
431	321.51672412	109.48
247	321.51322881	-74.51
322	321.51318655	0.49
208	321.51764063	-113.52
481	321.52294271	159.48
156	321.57008186	-165.57
486	321.52319276	164.48
323	321.51286689	1.49
249	321.51341288	-72.51

Mean Square Error = 8961.904248

Desired Output	Predict	Error
209	321.49962045	-112.5
153	321.48840606	-168.49
464	321.49996905	142.5
168	321.49059175	-153.49
211	321.49963367	-110.5
210	321.49962589	-111.5
398	321.49993248	76.5
350	321.49984580	28.5
420	321.49996328	98.5
156	321.48964168	-165.49
360	321.49995872	38.5
214	321.49961936	-107.5
248	321.49986392	-73.5
214	321.49962417	-107.5
317	321.49993769	-4.5
231	321.49975280	-90.5
238	321.49966099	-83.5
280	321.49991383	-41.5
470	321.49996561	148.5
420	321.49994826	98.5
465	321.49996770	143.5
490	321.49997017	168.5
397	321.49996116	75.5
232	321.49962707	-89.5
307	321.49993544	-14.5
231	321.49974648	-90.5
253	321.49989328	-68.5
471	321.49996744	149.5
236	321.49980199	-85.5
209	321.49961990	-112.5
234	321.49979255	-87.5

Mean Square Error = 11539.483881

Desired Output	Predict	Error
297	321.50433584	-24.5
315	321.50091723	-6.5
221	321.50452525	-100.5
271	321.50146579	-50.5
467	321.50048980	145.5
305	321.50113012	-16.5
259	321.50161456	-62.5
437	321.50051901	115.5

153	321.54088957	-168.54
230	321.50448634	-91.5
251	321.50189748	-70.5
390	321.50134680	68.5
370	321.50068624	48.5
240	321.50324478	-81.5
422	321.50053523	100.5
376	321.50061068	54.5
370	321.50184510	48.5
428	321.50084420	106.5
478	321.50056099	156.5
490	321.50044685	168.5
270	321.50312259	-51.5
209	321.50466798	-112.5
300	321.50117004	-21.5
460	321.50046360	138.5
356	321.50066045	34.5
405	321.50107237	83.5
262	321.50157435	-59.5
328	321.50116009	6.5
368	321.50062526	46.5
215	321.50455105	-106.5
230	321.50311455	-91.5

Mean Square Error = 8246.491342

Desired Output	Predict	Error
213	153.00036096	60.0
207	153.00035852	54.0
294	153.00036669	141.0
470	153.00037579	317.0
404	153.00037274	251.0
291	153.00036650	138.0
291	153.00036634	138.0
490	153.00037813	337.0
412	153.00036910	259.0
455	153.00037484	302.0
268	153.00036539	115.0
215	153.00036092	62.0
247	153.00036316	94.0
357	153.00037075	204.0
361	153.00037080	208.0
380	153.00036731	227.0
344	153.00037065	191.0
218	153.00036090	65.0
465	153.00037446	312.0
216	153.00036091	63.0
382	153.00037219	229.0
393	153.00037234	240.0
440	153.00037420	287.0
435	153.00037178	282.0
165	153.00035860	12.0
156	153.00035863	3.0
340	153.00036341	187.0
250	153.00036198	97.0
296	153.00036699	143.0
488	153.00037779	335.0
340	153.00036556	187.0

Mean Square Error = 41557.096774

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***** Mean Square Error Average : 16736.541 *****

4742.644674

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.8300000000000001

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
490	321.50722689	168.49
465	321.51842351	143.48
274	321.50851286	-47.51
438	321.50717436	116.49
450	321.50679204	128.49
412	321.50865331	90.49
390	321.51337418	68.49
156	321.57480903	-165.57
164	321.57365917	-157.57
481	321.50577733	159.49
239	321.51251266	-82.51
288	321.50910306	-33.51
242	321.51176038	-79.51
420	321.50817173	98.49
240	321.51227437	-81.51
368	321.50466189	46.5
303	321.50814191	-18.51
291	321.50863654	-30.51
172	321.56943822	-149.57
245	321.51178740	-76.51
156	321.57454509	-165.57
333	321.51075046	11.49
209	321.51839209	-112.52
328	321.50912180	6.49
475	321.50552073	153.49
469	321.50541978	147.49
398	321.50982256	76.49
390	321.51085667	68.49
370	321.50526295	48.49
433	321.50450971	111.5
440	321.50444002	118.5

Mean Square Error = 11582.451374

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Desired Output	Predict	Error
483	489.98975826	-6.99
365	489.98973655	-124.99
416	489.98974697	-73.99
245	489.98970604	-244.99
331	489.98972265	-158.99
216	489.98970539	-273.99
256	489.98971781	-233.99
253	489.98971703	-236.99
208	489.98970570	-281.99
153	489.98969340	-336.99

210	489.98970487	-279.99
233	489.98970988	-256.99
215	489.98970542	-274.99
315	489.98972976	-174.99
188	489.98969388	-301.99
362	489.98971460	-127.99
288	489.98970916	-201.99
250	489.98970597	-239.99
447	489.98971785	-42.99
467	489.98974674	-22.99
315	489.98972059	-174.99
235	489.98970509	-254.99
471	489.98975152	-18.99
249	489.98971461	-240.99
445	489.98973583	-44.99
290	489.98972179	-199.99
465	489.98975391	-24.99
361	489.98973658	-128.99
235	489.98971066	-254.99
231	489.98970933	-258.99
307	489.98972570	-182.99

Mean Square Error = 42693.009777

Desired Output	Predict	Error
313	321.50130079	-8.5
221	321.50470227	-100.5
262	321.50188086	-59.5
404	321.50084336	82.5
353	321.50103755	31.5
247	321.50260669	-74.5
390	321.50090612	68.5
333	321.50113018	11.5
478	321.50085131	156.5
471	321.50079734	149.5
468	321.50077562	146.5
294	321.50153579	-27.5
153	321.55950102	-168.56
427	321.50081531	105.5
236	321.50289302	-85.5
168	321.54871664	-153.55
300	321.50314920	-21.5
209	321.50482548	-112.5
357	321.50101931	35.5
327	321.50111980	5.5
327	321.50176148	5.5
298	321.50150134	-23.5
462	321.50077355	140.5
490	321.50076155	168.5
246	321.50266264	-75.5
339	321.50102145	17.5
466	321.50087352	144.5
325	321.50117274	3.5
155	321.55482502	-166.55
317	321.50134759	-4.5
490	321.50073843	168.5

Mean Square Error = 10243.612213

Desired Output	Predict	Error
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308	319.76740872	-11.77
448	321.47726766	126.52
451	321.48327790	129.52
209	241.42001759	-32.42
234	253.61699724	-19.62
300	319.94631707	-19.95
247	284.47767917	-37.48
311	320.33426079	-9.33
311	320.04142075	-9.04
470	321.48960716	148.51
234	249.94663560	-15.95
328	293.00927119	34.99
481	321.49555955	159.5
232	247.66411416	-15.66
310	319.99232322	-9.99
192	192.45941514	-0.46
322	320.87034011	1.13
430	321.45536872	108.54
268	311.10225117	-43.1
244	255.15924774	-11.16
427	321.45433925	105.55
230	247.77342993	-17.77
374	321.29494136	52.71
322	320.75482211	1.25
284	314.03527780	-30.04
212	242.80423211	-30.8
376	321.33534111	54.66
431	321.46262092	109.54
251	308.32456388	-57.32
248	279.03941717	-31.04
302	318.97981856	-16.98

Mean Square Error = 4355.61991

Desired Output	Predict	Error
417	321.39505262	95.6
382	321.38385121	60.62
231	312.09397426	-81.09
306	321.18427050	-15.18
232	301.39582847	-69.4
260	315.23917031	-55.24
252	320.37960054	-68.38
464	321.44986072	142.55
225	294.58681441	-69.59
297	315.90032837	-18.9
455	321.43498069	133.57
345	321.32919812	23.67
240	312.27668262	-72.28
208	306.48754238	-98.49
247	319.38014346	-72.38
475	321.45712667	153.54
326	320.47835366	5.52
405	321.25564624	83.74
286	320.88408182	-34.88
245	317.72363528	-72.72
447	321.43080958	125.57
350	319.18777509	30.81
215	299.49970587	-84.5
214	303.31803049	-89.32

370	320.55116568	49.45
276	320.73912697	-44.74
215	300.49417815	-85.49
296	321.12631223	-25.13
328	321.29911726	6.7
457	321.41376995	135.59
478	321.45418947	156.55

Mean Square Error = 7113.9067

Desired Output	Predict	Error
238	321.48797727	-83.49
224	250.37864805	-26.38
468	321.49969955	146.5
319	321.49834577	-2.5
413	321.49893873	91.5
441	321.49943250	119.5
215	321.47474668	-106.47
472	321.49978140	150.5
410	321.49882056	88.5
259	321.49620146	-62.5
154	154.89459647	-0.89
385	321.49904312	63.5
340	321.49777642	18.5
308	321.49784589	-13.5
444	321.49952339	122.5
322	321.49818056	0.5
288	321.49705018	-33.5
377	321.49893233	55.5
460	321.49946447	138.5
153	154.66116900	-1.66
351	321.49867045	29.5
435	321.49944119	113.5
214	321.47611133	-107.48
344	321.49862615	22.5
319	321.49847993	-2.5
209	321.47714893	-112.48
271	321.49626288	-50.5
470	321.49961569	148.5
488	321.49976274	166.5
288	321.49758341	-33.5
485	321.49976261	163.5

Mean Square Error = 8358.438513

Desired Output	Predict	Error
457	489.99999744	-33.0
390	489.99999763	-100.0
303	489.99999745	-187.0
422	489.99999758	-68.0
211	489.99999770	-279.0
450	489.99999747	-40.0
470	489.99999732	-20.0
292	489.99999763	-198.0
323	489.99999762	-167.0
341	489.99999759	-149.0
153	489.99999830	-337.0
349	489.99999759	-141.0
234	489.99999774	-256.0

317	489.99999757	-173.0
470	489.99999733	-20.0
232	489.99999774	-258.0
290	489.99999762	-200.0
337	489.99999758	-153.0
290	489.99999756	-200.0
490	489.99999699	0.0
240	489.99999771	-250.0
333	489.99999742	-157.0
217	489.99999777	-273.0
470	489.99999725	-20.0
294	489.99999755	-196.0
396	489.99999763	-94.0
470	489.99999654	-20.0
401	489.99999764	-89.0
490	489.99999699	0.0
490	489.99999701	0.0
459	489.99999742	-31.0

Mean Square Error = 27023.129032

Desired Output	Predict	Error
489	321.49999999	167.5
412	321.49999999	90.5
454	321.49999999	132.5
330	321.49999998	8.5
489	321.49999999	167.5
218	321.49999977	-103.5
270	321.49999843	-51.5
238	321.49999985	-83.5
486	321.49999999	164.5
246	321.49999995	-75.5
230	321.49999978	-91.5
397	321.49999999	75.5
471	321.49999999	149.5
303	321.49999998	-18.5
255	321.49999991	-66.5
410	321.49999999	88.5
460	321.49999999	138.5
467	321.49999999	145.5
209	321.49999983	-112.5
156	321.48174673	-165.48
280	321.49999952	-41.5
294	321.49999998	-27.5
209	321.49999983	-112.5
237	321.49988001	-84.5
208	321.49999984	-113.5
156	321.47972905	-165.48
305	321.49999998	-16.5
360	321.49999997	38.5
484	321.49999999	162.5
210	321.49999983	-111.5
328	321.49999999	6.5

Mean Square Error = 11858.597123

Desired Output	Predict	Error
214	321.50927799	-107.51
360	321.50462387	38.5

490	321.50482133	168.5
380	321.50560360	58.49
253	321.50579855	-68.51
246	321.51965759	-75.52
314	321.50709781	-7.51
308	321.50506638	-13.51
153	321.54300278	-168.54
213	321.50926647	-108.51
250	321.50612797	-71.51
178	321.53537037	-143.54
314	321.50712787	-7.51
291	321.50532919	-30.51
160	321.53860557	-161.54
444	321.50465481	122.5
433	321.50478661	111.5
471	321.50471701	149.5
213	321.50925570	-108.51
236	321.50761101	-85.51
436	321.50464784	114.5
437	321.50464296	115.5
241	321.50702459	-80.51
329	321.50473476	7.5
300	321.50505590	-21.51
270	321.50756818	-51.51
207	321.52931661	-114.53
469	321.50470456	147.5
296	321.50509152	-25.51
356	321.50463376	34.5
381	321.50464910	59.5

Mean Square Error = 9474.326374

Desired Output	Predict	Error
490	489.99991865	0.0
315	489.99992016	-175.0
243	489.99992063	-247.0
488	489.99991868	-2.0
293	489.99992039	-197.0
340	489.99992061	-150.0
265	489.99992062	-225.0
320	489.99992023	-170.0
486	489.99991870	-4.0
420	489.99991945	-70.0
305	489.99992029	-185.0
294	489.99992038	-196.0
325	489.99992023	-165.0
153	489.99986849	-337.0
465	489.99991928	-25.0
305	489.99992034	-185.0
309	489.99992023	-181.0
393	489.99991957	-97.0
315	489.99992026	-175.0
335	489.99991994	-155.0
153	489.99986805	-337.0
307	489.99992030	-183.0
428	489.99991989	-62.0
424	489.99991941	-66.0
252	489.99992062	-238.0
230	489.99992047	-260.0
165	489.99987986	-325.0

468		489.99991915		-22.0
280		489.99992056		-210.0
153		489.99986708		-337.0
405		489.99991959		-85.0

Mean Square Error = 36548.322581

***** Mean Square Error Average : 16925.1414 *****
4355.61991

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.84

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
303		321.50426716		-18.5
490		321.50410655		168.5
309		321.50417503		-12.5
314		321.50592814		-7.51
208		321.50777948		-113.51
456		321.50401234		134.5
433		321.50398189		111.5
315		321.50417233		-6.5
350		321.50549771		28.49
344		321.50393312		22.5
221		321.50803984		-100.51
260		321.50660736		-61.51
225		321.50806476		-96.51
237		321.52254954		-84.52
333		321.50440695		11.5
376		321.50390414		54.5
326		321.50536872		4.49
472		321.50402334		150.5
393		321.50391551		71.5
209		321.50798805		-112.51
459		321.50397041		137.5
156		321.53502414		-165.54
154		321.53619662		-167.54
361		321.50393578		39.5
410		321.50389435		88.5
215		321.50795388		-106.51
246		321.51901401		-75.52
232		321.50657296		-89.51
241		321.50614355		-80.51
215		321.50796783		-106.51
370		321.50499258		48.5

Mean Square Error = 8922.955974

Desired Output		Predict		Error
412		489.99997922		-78.0
438		489.99997716		-52.0
327		489.99997888		-163.0
230		489.99998663		-260.0

236	489.99998493	-254.0
288	489.99998517	-202.0
460	489.99996982	-30.0
231	489.99998565	-259.0
153	489.99999077	-337.0
420	489.99997513	-70.0
398	489.99998052	-92.0
313	489.99997988	-177.0
294	489.99998099	-196.0
251	489.99998327	-239.0
215	489.99998650	-275.0
485	489.99996750	-5.0
286	489.99998178	-204.0
240	489.99998567	-250.0
404	489.99997530	-86.0
470	489.99997092	-20.0
315	489.99997973	-175.0
259	489.99998279	-231.0
247	489.99998432	-243.0
320	489.99998007	-170.0
445	489.99997667	-45.0
252	489.99998313	-238.0
290	489.99998683	-200.0
153	489.99999084	-337.0
349	489.99997807	-141.0
210	489.99998646	-280.0
305	489.99998058	-185.0

Mean Square Error = 39816.064516

Desired Output	Predict	Error
188	321.13824327	-133.14
314	321.49502019	-7.5
319	321.49877062	-2.5
467	321.49933037	145.5
377	321.49911699	55.5
325	321.49883450	3.5
353	321.49900644	31.5
153	320.95029221	-167.95
315	321.49813533	-6.5
335	321.49895728	13.5
209	321.49025906	-112.49
308	321.49863680	-13.5
303	321.49516427	-18.5
333	321.49832999	11.5
390	321.49919933	68.5
317	321.49857460	-4.5
356	321.49908814	34.5
329	321.49891882	7.5
430	321.49929299	108.5
293	321.49827551	-28.5
300	321.49843078	-21.5
450	321.49916086	128.5
213	321.49070957	-108.49
437	321.49931610	115.5
481	321.49943935	159.5
470	321.49938326	148.5
327	321.49822499	5.5
214	321.49051028	-107.49
416	321.49926851	94.5

435		321.49887978		113.5
235		321.49445222		-86.49

Mean Square Error = 7541.432661

Desired Output		Predict		Error
328		321.50013281		6.5
239		321.50037149		-82.5
322		321.50013645		0.5
246		321.50029269		-75.5
345		321.50012663		23.5
468		321.50007933		146.5
381		321.50011357		59.5
300		321.50016060		-21.5
328		321.50032574		6.5
212		321.50050355		-109.5
209		321.50052412		-112.5
153		321.51616814		-168.52
444		321.50009376		122.5
153		321.51601886		-168.52
259		321.50213214		-62.5
290		321.50017390		-31.5
380		321.50019777		58.5
217		321.50059198		-104.5
410		321.50010456		88.5
351		321.50012233		29.5
396		321.50010858		74.5
325		321.50015124		3.5
307		321.50015177		-14.5
317		321.50014077		-4.5
303		321.50015560		-18.5
172		321.51352715		-149.51
234		321.50041735		-87.5
216		321.50058166		-105.5
490		321.50007299		168.5
224		321.50756086		-97.51
466		321.50009336		144.5

Mean Square Error = 8679.295839

Desired Output		Predict		Error
323		321.49689105		1.5
311		321.49675226		-10.5
250		321.48551109		-71.49
284		321.49518095		-37.5
156		156.37160437		-0.37
276		321.49491658		-45.49
288		321.49551938		-33.5
470		321.49825744		148.5
306		321.49647947		-15.5
478		321.49831832		156.5
230		321.48317793		-91.48
360		321.49736568		38.5
262		321.49461313		-59.49
270		321.48909889		-51.49
153		153.90100655		-0.9
331		321.49693120		9.5
328		321.49692279		6.5
265		321.49464335		-56.49

475	321.49832089	153.5
168	159.15424707	8.85
468	321.49817167	146.5
245	321.48942299	-76.49
464	321.49823604	142.5
433	321.49792078	111.5
300	321.48959340	-21.49
291	321.49613784	-30.5
469	321.49813344	147.5
234	321.48524016	-87.49
207	217.36508762	-10.37
235	321.47895039	-86.48
155	155.41897700	-0.42

Mean Square Error = 6388.8053

Desired Output	Predict	Error
288	321.49999997	-33.5
488	321.50000000	166.5
448	321.50000000	126.5
447	321.49999999	125.5
447	321.50000000	125.5
488	321.50000000	166.5
250	321.49999995	-71.5
471	321.50000000	149.5
271	321.49999997	-50.5
211	321.49999957	-110.5
280	321.49999855	-41.5
274	321.49999997	-47.5
339	321.49999999	17.5
156	321.49944140	-165.5
484	321.50000000	162.5
178	321.49963348	-143.5
305	321.49999998	-16.5
357	321.49999999	35.5
252	321.49999995	-69.5
308	321.49999998	-13.5
457	321.49999999	135.5
489	321.50000000	167.5
368	321.49999999	46.5
483	321.50000000	161.5
470	321.50000000	148.5
424	321.49999999	102.5
245	321.49999989	-76.5
405	321.49999999	83.5
156	321.49946654	-165.5
165	321.49953776	-156.5
209	321.49999954	-112.5

Mean Square Error = 13422.379032

Desired Output	Predict	Error
302	153.00055699	149.0
247	153.00051544	94.0
164	153.00045827	11.0
451	153.00063533	298.0
457	153.00063194	304.0
413	153.00061686	260.0
296	153.00057017	143.0

242	153.00049116	89.0
422	153.00062404	269.0
486	153.00064227	333.0
310	153.00057709	157.0
471	153.00063429	318.0
490	153.00064402	337.0
298	153.00057068	145.0
428	153.00059864	275.0
390	153.00056333	237.0
370	153.00060748	217.0
322	153.00056029	169.0
490	153.00064410	337.0
417	153.00061876	264.0
192	153.00043174	39.0
427	153.00062538	274.0
340	153.00050646	187.0
405	153.00058141	252.0
450	153.00063042	297.0
481	153.00064168	328.0
390	153.00056356	237.0
444	153.00063136	291.0
454	153.00061700	301.0
209	153.00045660	56.0
436	153.00062799	283.0

Mean Square Error = 58974.612903

Desired Output	Predict	Error
401	321.50000001	79.5
294	321.50000003	-27.5
240	321.50000013	-81.5
307	321.50000002	-14.5
311	321.50000002	-10.5
213	321.50000024	-108.5
153	321.49677883	-168.5
253	321.50000004	-68.5
460	321.50000001	138.5
455	321.50000001	133.5
490	321.50000001	168.5
290	321.50000003	-31.5
489	321.50000001	167.5
291	321.50000003	-30.5
232	321.50000028	-89.5
305	321.50000002	-16.5
308	321.50000003	-13.5
390	321.50000001	68.5
236	321.50000016	-85.5
211	321.50000024	-110.5
238	321.50000023	-83.5
470	321.50000001	148.5
471	321.50000001	149.5
365	321.50000001	43.5
294	321.50000002	-27.5
465	321.50000001	143.5
341	321.50000001	19.5
319	321.50000002	-2.5
210	321.50000025	-111.5
468	321.50000001	146.5
471	321.50000001	149.5

Mean Square Error = 10264.379032

Desired Output	Predict	Error
330	321.50069795	8.5
208	321.50150266	-113.5
243	321.50105906	-78.5
360	321.50089489	38.5
340	321.50086694	18.5
253	321.50077723	-68.5
160	321.51866005	-161.52
208	321.50157600	-113.5
288	321.50069472	-33.5
296	321.50064505	-25.5
247	321.50095101	-74.5
297	321.50151433	-24.5
240	321.50144723	-81.5
292	321.50064502	-29.5
490	321.50045872	168.5
214	321.50158799	-107.5
256	321.50076453	-65.5
234	321.50107516	-87.5
209	321.50159581	-112.5
249	321.50086344	-72.5
248	321.50088497	-73.5
490	321.50044912	168.5
337	321.50052988	15.5
470	321.50044907	148.5
441	321.50044207	119.5
233	321.50114225	-88.5
322	321.50062396	0.5
315	321.50055947	-6.5
385	321.50047675	63.5
478	321.50044201	156.5
255	321.50129066	-66.5

Mean Square Error = 8420.522916

Desired Output	Predict	Error
440	321.50072286	118.5
333	321.50105160	11.5
270	321.51926809	-51.52
469	321.50070773	147.5
382	321.50082481	60.5
465	321.50107895	143.5
153	321.57237940	-168.57
280	321.50167037	-41.5
244	321.50340607	-77.5
467	321.50070763	145.5
490	321.50066017	168.5
218	321.50678026	-103.51
374	321.50089286	52.5
268	321.50185465	-53.5
420	321.50117481	98.5
153	321.57333986	-168.57
246	321.50312583	-75.5
486	321.50065427	164.5
294	321.50172584	-27.5
231	321.50414448	-90.5
238	321.50364371	-83.5

475	321.50066495	153.5
232	321.50408006	-89.5
465	321.50080787	143.5
230	321.50427462	-91.5
215	321.50674571	-106.51
328	321.50144725	6.5
412	321.50161496	90.5
431	321.50074040	109.5
397	321.50083594	75.5
462	321.50071120	140.5

Mean Square Error = 11910.296787

***** Mean Square Error Average : 17434.0745 *****
6388.8053

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.85

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
478	321.49449877	156.51
339	321.05273548	17.95
294	319.55915638	-25.56
270	249.52111592	20.48
325	321.00694392	3.99
471	321.48768036	149.51
234	252.10994153	-18.11
410	321.42312326	88.58
450	321.46666172	128.53
208	241.46645469	-33.47
490	321.49410821	168.51
464	321.48889935	142.51
305	320.14259264	-15.14
225	240.37156537	-15.37
294	317.74684937	-23.75
470	321.49031478	148.51
303	320.16470451	-17.16
209	242.89165291	-33.89
435	321.48021695	113.52
288	277.78450696	10.22
209	243.01138824	-34.01
427	321.44249910	105.56
380	321.20157426	58.8
437	321.46299829	115.54
233	249.39997931	-16.4
240	249.34647992	-9.35
153	160.71913910	-7.72
317	320.72300141	-3.72
490	321.49393539	168.51
153	160.49538830	-7.5
470	321.48686348	148.51

Mean Square Error = 7752.942184

Desired Output	Predict	Error
341	153.00059246	188.0
488	153.00083528	335.0
381	153.00065110	228.0
441	153.00074511	288.0
224	153.00030772	71.0
305	153.00052226	152.0
350	153.00043748	197.0
242	153.00041005	89.0
455	153.00076304	302.0
236	153.00039767	83.0
210	153.00037478	57.0
238	153.00038268	85.0
240	153.00039694	87.0
313	153.00054190	160.0
276	153.00048275	123.0
436	153.00074345	283.0
270	153.00040612	117.0
390	153.00050950	237.0
259	153.00033652	106.0
360	153.00064497	207.0
325	153.00056793	172.0
232	153.00038058	79.0
231	153.00040152	78.0
153	153.00028485	-0.0
153	153.00028546	-0.0
405	153.00056366	252.0
298	153.00051255	145.0
417	153.00069059	264.0
230	153.00040108	77.0
401	153.00067361	248.0
214	153.00037482	61.0

Mean Square Error = 31792.16129

Desired Output	Predict	Error
470	321.44307965	148.56
333	316.96882320	16.03
484	321.47253253	162.53
481	321.48407524	159.52
475	321.48496799	153.52
470	321.48477688	148.52
255	220.74605788	34.25
155	159.42961824	-4.43
178	162.46023700	15.54
311	312.27238763	-1.27
319	313.07207784	5.93
156	159.45765097	-3.46
454	321.35659548	132.64
280	276.27167580	3.73
303	304.72753942	-1.73
462	321.41570852	140.58
307	308.24626669	-1.25
293	302.89479306	-9.89
328	317.47762738	10.52
490	321.48206279	168.52
238	218.34622127	19.65
412	320.77975443	91.22
284	278.81468848	5.19

438	321.21144833	116.79
218	203.93276329	14.07
252	260.49197942	-8.49
428	320.98692318	107.01
444	321.32639841	122.67
465	321.42392363	143.58
290	264.52168650	25.48
471	321.45014476	149.55

Mean Square Error = 9034.001181

Desired Output	Predict	Error
314	321.50110612	-7.5
260	321.50144163	-61.5
240	321.50119619	-81.5
300	321.50044000	-21.5
475	321.50017578	153.5
314	321.50119881	-7.5
467	321.50018905	145.5
156	321.53217755	-165.53
154	321.53403997	-167.53
213	321.50209194	-108.5
319	321.50034450	-2.5
215	321.50213744	-106.5
322	321.50053442	0.5
489	321.50017549	167.5
337	321.50030538	15.5
244	321.50109947	-77.5
465	321.50030587	143.5
329	321.50029919	7.5
252	321.50072427	-69.5
382	321.50023221	60.5
398	321.50045383	76.5
303	321.50040122	-18.5
290	321.50053715	-31.5
230	321.50213542	-91.5
489	321.50017120	167.5
328	321.50043403	6.5
370	321.50074019	48.5
469	321.50020234	147.5
215	321.50212795	-106.5
397	321.50023415	75.5
460	321.50022582	138.5

Mean Square Error = 9733.926832

Desired Output	Predict	Error
251	154.78807615	96.21
468	154.78740201	313.21
490	154.78760269	335.21
483	154.78783410	328.21
286	154.78785212	131.21
345	154.78758175	190.21
192	154.77960060	37.22
327	154.78757567	172.21
209	154.78774839	54.21
481	154.78746755	326.21
274	154.78790373	119.21
245	154.78796585	90.21

478	154.78744842	323.21
470	154.78744838	315.21
300	154.78778109	145.21
271	154.78791711	116.21
213	154.78776561	58.21
333	154.78762841	178.21
214	154.78772919	59.21
451	154.78735022	296.21
416	154.78731128	261.21
351	154.78742680	196.21
165	154.77796744	10.22
247	154.78803980	92.21
448	154.78734709	293.21
247	154.78803721	92.21
470	154.78751308	315.21
243	154.78791822	88.21
250	154.78809559	95.21
468	154.78840669	313.21
292	154.78781996	137.21

Mean Square Error = 43591.289539

Desired Output	Predict	Error
486	321.49988794	164.5
305	321.49958204	-16.5
221	321.49465955	-100.49
246	321.49850965	-75.5
456	321.49987925	134.5
300	321.49797395	-21.5
164	320.90420253	-156.9
490	321.49989303	168.5
335	321.49974490	13.5
360	321.49892613	38.5
232	321.49728642	-89.5
153	320.74031245	-167.74
374	321.49979015	52.5
424	321.49983879	102.5
420	321.49971482	98.5
247	321.49874813	-74.5
457	321.49986756	135.5
376	321.49980910	54.5
268	321.49928794	-53.5
323	321.49970354	1.5
250	321.49691845	-71.5
486	321.49989091	164.5
420	321.49983355	98.5
153	320.68283822	-167.68
393	321.49981651	71.5
307	321.49959608	-14.5
349	321.49975364	27.5
368	321.49980204	46.5
431	321.49985391	109.5
207	321.22004601	-114.22
362	321.49939298	40.5

Mean Square Error = 10003.995113

Desired Output	Predict	Error
396	321.49999960	74.5

259	321.49999903	-62.5
430	321.49999962	108.5
333	321.49999937	11.5
232	321.49999690	-89.5
294	321.49999935	-27.5
490	321.49999966	168.5
245	321.49999595	-76.5
236	321.49999777	-85.5
215	321.49999396	-106.5
357	321.49999955	35.5
344	321.49999954	22.5
302	321.49999926	-19.5
471	321.49999965	149.5
256	321.49999901	-65.5
377	321.49999957	55.5
217	321.49999346	-104.5
488	321.49999966	166.5
309	321.49999943	-12.5
356	321.49999956	34.5
288	321.49999926	-33.5
308	321.49999943	-13.5
208	321.49999552	-113.5
248	321.49999868	-73.5
365	321.49999956	43.5
404	321.49999960	82.5
465	321.49999965	143.5
156	321.49116766	-165.49
328	321.49999951	6.5
288	321.49999926	-33.5
216	321.49999363	-105.5

Mean Square Error = 7852.981939

Desired Output	Predict	Error
472	321.49680855	150.5
168	153.24350952	14.76
262	321.47926384	-59.48
241	321.40558695	-80.41
490	321.49683957	168.5
253	321.47834217	-68.48
215	321.28075082	-106.28
468	321.49619548	146.5
340	321.48423726	18.52
444	321.49581974	122.5
172	153.28264277	18.72
390	321.49424294	68.51
245	321.44761652	-76.45
433	321.49528518	111.5
466	321.49580663	144.5
315	321.48724433	-6.49
460	321.49640788	138.5
249	321.47444990	-72.47
188	153.53711384	34.46
471	321.49615984	149.5
410	321.49375500	88.51
153	153.09315076	-0.09
490	321.49681542	168.5
467	321.49593199	145.5
315	321.49067254	-6.49
153	153.09325640	-0.09

294	321.48572589	-27.49
291	321.48665639	-30.49
235	321.33355806	-86.33
326	321.47995821	4.52
308	321.48657838	-13.49

Mean Square Error = 8808.222094

Desired Output	Predict	Error
246	153.00000000	93.0
422	153.00000002	269.0
317	153.00000001	164.0
234	153.00000001	81.0
265	153.00000001	112.0
210	153.00000001	57.0
353	153.00000001	200.0
390	153.00000001	237.0
315	153.00000001	162.0
253	153.00000001	100.0
445	153.00000001	292.0
235	153.00000001	82.0
405	153.00000001	252.0
230	153.00000001	77.0
214	153.00000001	61.0
447	153.00000001	294.0
427	153.00000002	274.0
330	153.00000001	177.0
310	153.00000001	157.0
361	153.00000001	208.0
315	153.00000001	162.0
440	153.00000002	287.0
153	153.00000000	0.0
328	153.00000001	175.0
211	153.00000001	58.0
340	153.00000001	187.0
246	153.00000001	93.0
331	153.00000001	178.0
209	153.00000001	56.0
234	153.00000001	81.0
291	153.00000001	138.0

Mean Square Error = 30168.193548

Desired Output	Predict	Error
413	409.40331084	3.6
322	363.23385090	-41.23
450	468.75053602	-18.75
211	321.72496230	-110.72
208	321.68629154	-113.69
297	326.85419877	-29.85
327	353.16575352	-26.17
239	322.21583548	-83.22
370	394.30375263	-24.3
237	321.49996433	-84.5
209	321.67554357	-112.68
311	350.55595641	-39.56
290	337.73428952	-47.73
288	337.01398290	-49.01
433	428.25671484	4.74

296	337.79992452	-41.8
320	359.49914772	-39.5
156	321.49999719	-165.5
231	321.80257365	-90.8
469	478.66725164	-9.67
306	345.31399020	-39.31
459	474.02672754	-15.03
160	321.49999678	-161.5
322	363.62732101	-41.63
485	485.45148570	-0.45
385	413.48208993	-28.48
280	321.74430421	-41.74
457	463.20898289	-6.21
209	321.67358152	-112.67
296	346.67846913	-50.68
447	466.45004567	-19.45

Mean Square Error = 4816.165081

***** Mean Square Error Average : 16355.3879 *****
4816.165081

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.86

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
288	321.62928939	-33.63
319	328.57764601	-9.58
274	322.28622610	-48.29
231	321.52358918	-90.52
294	325.21824884	-31.22
156	321.50371090	-165.5
305	324.93928863	-19.94
240	321.53151467	-81.53
469	443.81775059	25.18
210	321.52465430	-111.52
380	332.02599745	47.97
243	321.53865208	-78.54
377	339.97612502	37.02
307	326.42739552	-19.43
328	330.55427048	-2.55
468	441.96910966	26.03
305	326.22047909	-21.22
290	321.79562540	-31.8
247	321.70708246	-74.71
300	326.24694059	-26.25
410	357.13152404	52.87
245	321.59280454	-76.59
333	334.80367134	-1.8
413	343.02161372	69.98
328	334.27140379	-6.27
486	473.56072111	12.44
165	321.50358069	-156.5
239	321.56993184	-82.57

481		466.44843315		14.55
208		321.52690536		-113.53
315		326.28157321		-11.28

Mean Square Error = 4424.409623

Desired Output		Predict		Error
390		153.00004073		237.0
470		153.00004021		317.0
307		153.00004350		154.0
335		153.00004370		182.0
385		153.00004280		232.0
245		153.00004516		92.0
306		153.00004384		153.0
435		153.00003792		282.0
404		153.00004293		251.0
210		153.00004543		57.0
232		153.00004543		79.0
483		153.00003711		330.0
237		153.00004781		84.0
292		153.00004411		139.0
456		153.00004084		303.0
382		153.00004318		229.0
233		153.00004551		80.0
317		153.00004333		164.0
486		153.00003922		333.0
444		153.00004191		291.0
427		153.00004251		274.0
288		153.00004360		135.0
396		153.00004295		243.0
472		153.00003544		319.0
291		153.00004352		138.0
370		153.00004171		217.0
467		153.00004068		314.0
440		153.00004203		287.0
397		153.00004273		244.0
320		153.00004275		167.0
192		153.00004921		39.0

Mean Square Error = 49992.193548

Desired Output		Predict		Error
234		312.83447747		-78.83
490		321.44028091		168.56
244		315.42446050		-71.42
365		321.14998423		43.85
412		321.25202001		90.75
465		321.36084150		143.64
156		170.91764388		-14.92
153		170.68696802		-17.69
260		315.12315334		-55.12
360		321.14765678		38.85
381		321.20861304		59.79
471		321.39727687		149.6
253		319.93208665		-66.93
215		301.27297208		-86.27
451		321.38687594		129.61
390		321.21245886		68.79
438		321.25693652		116.74

296	320.68446065	-24.68
490	321.44130135	168.56
296	320.83743698	-24.84
331	321.01985604	9.98
215	302.29648764	-87.3
294	320.61742986	-26.62
209	304.74862596	-95.75
328	321.02217021	6.98
232	311.49823658	-79.5
280	320.24595829	-40.25
329	321.04368908	7.96
271	320.08895756	-49.09
209	304.71664870	-95.72
242	313.32301818	-71.32

Mean Square Error = 7115.639384

Desired Output	Predict	Error
340	321.49999965	18.5
241	321.49999875	-80.5
153	321.49851667	-168.5
490	321.49999997	168.5
250	321.49999810	-71.5
328	321.49999908	6.5
485	321.49999997	163.5
447	321.49999996	125.5
293	321.49999982	-28.5
327	321.49999980	5.5
153	321.49856984	-168.5
252	321.49999961	-69.5
297	321.49999815	-24.5
325	321.49999986	3.5
475	321.49999997	153.5
247	321.49999942	-74.5
405	321.49999994	83.5
490	321.49999997	168.5
230	321.49999661	-91.5
333	321.49999991	11.5
235	321.49999726	-86.5
401	321.49999994	79.5
209	321.49999696	-112.5
211	321.49999710	-110.5
218	321.49999649	-103.5
298	321.49999984	-23.5
236	321.49999842	-85.5
460	321.49999995	138.5
300	321.49999890	-21.5
341	321.49999992	19.5
327	321.49999991	5.5

Mean Square Error = 9554.895161

Desired Output	Predict	Error
317	489.99907153	-173.0
315	489.99906044	-175.0
325	489.99904788	-165.0
270	489.99918322	-220.0
153	489.99936343	-337.0
300	489.99907488	-190.0

211	489.99921278	-279.0
351	489.99902158	-139.0
215	489.99921401	-275.0
214	489.99921175	-276.0
314	489.99917543	-176.0
350	489.99915977	-140.0
246	489.99915760	-244.0
428	489.99904799	-62.0
250	489.99913425	-240.0
246	489.99932168	-244.0
153	489.99936343	-337.0
460	489.99895019	-30.0
294	489.99908343	-196.0
207	489.99934642	-283.0
251	489.99913214	-239.0
319	489.99904999	-171.0
288	489.99909803	-202.0
268	489.99911328	-222.0
310	489.99907253	-180.0
188	489.99935185	-302.0
213	489.99921185	-277.0
322	489.99905098	-168.0
424	489.99898894	-66.0
457	489.99896756	-33.0
489	489.99893377	-1.0

Mean Square Error = 45462.258065

Desired Output	Predict	Error
153	321.53000544	-168.53
160	321.52872686	-161.53
490	321.50107828	168.5
339	321.50148628	17.5
311	321.50181364	-10.5
470	321.50166861	148.5
450	321.50150322	128.5
284	321.50236556	-37.5
405	321.50216625	83.5
259	321.51677261	-62.52
209	321.50698376	-112.51
475	321.50108163	153.5
376	321.50131528	54.5
308	321.50186673	-13.5
340	321.50405908	18.5
470	321.50108256	148.5
208	321.50670267	-113.51
259	321.50278171	-62.5
262	321.50271736	-59.5
153	321.53021697	-168.53
441	321.50117388	119.5
471	321.50121128	149.5
416	321.50121238	94.5
353	321.50152310	31.5
412	321.50201149	90.5
410	321.50128445	88.5
156	321.52871513	-165.53
323	321.50166145	1.5
489	321.50111390	167.5
217	321.50683974	-104.51
270	321.51360493	-51.51

Mean Square Error = 12137.604335

Desired Output	Predict	Error
445	319.98793223	125.01
253	279.15166628	-26.15
433	320.59765273	112.4
337	316.83620842	20.16
471	321.08561086	149.91
240	211.90029292	28.1
294	307.48845759	-13.49
370	318.67715494	51.32
437	320.67508451	116.32
308	311.43470027	-3.43
470	321.03289985	148.97
276	290.43846594	-14.44
469	321.00217821	148.0
361	318.36319164	42.64
322	313.04469437	8.96
221	205.41172828	15.59
427	320.53251374	106.47
212	209.85224598	2.15
444	320.78646014	123.21
302	302.39818038	-0.4
488	321.27202873	166.73
246	241.53646801	4.46
455	320.92189014	134.08
288	298.50033213	-10.5
280	207.15301364	72.85
303	309.66146029	-6.66
447	320.68543900	126.31
214	208.67953316	5.32
172	161.72657509	10.27
238	211.02727558	26.97
235	219.99258730	15.01

Mean Square Error = 6781.871252

Desired Output	Predict	Error
209	321.50593427	-112.51
313	321.50143146	-8.5
490	321.50070206	168.5
374	321.50103761	52.5
290	321.50185879	-31.5
362	321.50218024	40.5
249	321.50274194	-72.5
322	321.50190210	0.5
231	321.50430375	-90.5
430	321.50085699	108.5
356	321.50103755	34.5
344	321.50109251	22.5
393	321.50096022	71.5
153	321.55484388	-168.55
265	321.50216362	-56.5
303	321.50419000	-18.5
478	321.50079272	156.5
481	321.50076836	159.5
164	321.54821511	-157.55
156	321.55012365	-165.55

214	321.50592516	-107.51
462	321.50078641	140.5
465	321.50078239	143.5
464	321.50073673	142.5
459	321.50079178	137.5
155	321.55074379	-166.55
454	321.50098146	132.5
291	321.50182405	-30.5
398	321.50166399	76.5
326	321.50289788	4.5
305	321.50160084	-16.5

Mean Square Error = 11487.676135

Desired Output	Predict	Error
234	489.99997974	-256.0
209	489.99998179	-281.0
213	489.99998169	-277.0
333	489.99997580	-157.0
154	489.99999012	-336.0
252	489.99997753	-238.0
420	489.99997439	-70.0
315	489.99997545	-175.0
153	489.99999022	-337.0
468	489.99997243	-22.0
330	489.99997591	-160.0
490	489.99997163	0.0
309	489.99997532	-181.0
433	489.99997401	-57.0
390	489.99997584	-100.0
230	489.99998034	-260.0
315	489.99997621	-175.0
290	489.99997640	-200.0
240	489.99997993	-250.0
357	489.99997425	-133.0
488	489.99997202	-2.0
466	489.99997265	-24.0
224	489.99998846	-266.0
308	489.99997630	-182.0
417	489.99997385	-73.0
168	489.99998983	-322.0
232	489.99998039	-258.0
256	489.99997728	-234.0
248	489.99997851	-242.0
467	489.99997259	-23.0
349	489.99997438	-141.0

Mean Square Error = 40928.516129

Desired Output	Predict	Error
436	489.99028862	-53.99
484	489.99028329	-5.99
216	489.99030210	-273.99
247	489.99029861	-242.99
303	489.99029624	-186.99
215	489.99030082	-274.99
457	489.99028997	-32.99
448	489.99028667	-41.99
314	489.99029951	-175.99

208	489.99029980	-281.99
230	489.99030214	-259.99
431	489.99028899	-58.99
490	489.99028215	0.01
360	489.99029819	-129.99
255	489.99029970	-234.99
245	489.99030075	-244.99
470	489.99028639	-19.99
368	489.99029293	-121.99
238	489.99030107	-251.99
234	489.99030144	-255.99
390	489.99029212	-99.99
471	489.99028653	-18.99
450	489.99028781	-39.99
422	489.99028979	-67.99
286	489.99029775	-203.99
311	489.99029509	-178.99
420	489.99029070	-69.99
225	489.99030298	-264.99
345	489.99029432	-144.99
236	489.99029993	-253.99
478	489.99028390	-11.99

Mean Square Error = 30952.931068

***** Mean Square Error Average : 21883.7995 *****
4424.409623

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.87

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
397	321.50558713	75.49
435	321.50581218	113.49
280	321.50623800	-41.51
341	321.50570027	19.49
192	321.53111411	-129.53
235	321.50792550	-86.51
256	321.50651131	-65.51
302	321.50621370	-19.51
325	321.50575614	3.49
308	321.50591311	-13.51
327	321.50614959	5.49
368	321.50560208	46.49
438	321.50565229	116.49
365	321.50564083	43.49
390	321.50557901	68.49
230	321.50832619	-91.51
294	321.50605997	-27.51
322	321.50577280	0.49
444	321.50553058	122.49
462	321.50552768	140.49
209	321.50972817	-112.51
164	321.53394120	-157.53

468	321.50551648	146.49
280	321.51246351	-41.51
460	321.50556588	138.49
319	321.50579077	-2.51
306	321.50589089	-15.51
422	321.50555068	100.49
401	321.50558742	79.49
252	321.50662554	-69.51
288	321.50620176	-33.51

Mean Square Error = 7047.773055

Desired Output	Predict	Error
471	321.37767805	149.62
154	163.68008175	-9.68
410	321.28174291	88.72
427	321.30985306	105.69
448	321.35930457	126.64
305	320.97287996	-15.97
233	318.03102476	-85.03
259	320.59628398	-61.6
390	321.06546329	68.93
247	320.09169254	-73.09
319	321.09779352	-2.1
390	320.97688941	69.02
215	314.39952780	-99.4
340	319.71631958	20.28
424	321.28787482	102.71
290	320.88514801	-30.89
253	320.54734928	-67.55
288	318.95269696	-30.95
291	320.90398024	-29.9
208	315.73753693	-107.74
274	320.68349317	-46.68
245	319.46715861	-74.47
382	321.24367271	60.76
470	321.36922456	148.63
303	319.77775503	-16.78
210	315.50414349	-105.5
209	315.21064005	-106.21
412	321.15675496	90.84
440	321.33450199	118.67
270	318.83114940	-48.83
240	317.80905075	-77.81

Mean Square Error = 6790.05139

Desired Output	Predict	Error
430	321.50048855	108.5
153	321.51852330	-168.52
214	321.50385440	-107.5
225	321.50384615	-96.5
276	321.50138156	-45.5
370	321.50168309	48.5
466	321.50053046	144.5
370	321.50065736	48.5
209	321.50389590	-112.5
471	321.50047917	149.5
156	321.51764569	-165.52

240	321.50255671	-81.5
337	321.50079564	15.5
413	321.50053723	91.5
213	321.50385049	-108.5
323	321.50084852	1.5
481	321.50040808	159.5
483	321.50046219	161.5
290	321.50138305	-31.5
460	321.50041871	138.5
353	321.50072144	31.5
350	321.50210733	28.5
486	321.50040639	164.5
468	321.50083513	146.5
317	321.50093550	-4.5
168	321.51677064	-153.52
322	321.50105207	0.5
232	321.50373012	-89.5
214	321.50385680	-107.5
475	321.50058094	153.5
447	321.50046002	125.5

Mean Square Error = 12342.55649

Desired Output	Predict	Error
310	489.99999521	-180.0
420	489.99999519	-70.0
303	489.99999516	-187.0
326	489.99999646	-164.0
213	489.99999685	-277.0
481	489.99999432	-9.0
349	489.99999453	-141.0
211	489.99999686	-279.0
351	489.99999429	-139.0
235	489.99999682	-255.0
307	489.99999522	-183.0
311	489.99999508	-179.0
314	489.99999656	-176.0
488	489.99999360	-2.0
153	489.99999796	-337.0
471	489.99999391	-19.0
381	489.99999424	-109.0
165	489.99999792	-325.0
288	489.99999557	-202.0
329	489.99999457	-161.0
333	489.99999472	-157.0
153	489.99999797	-337.0
464	489.99999359	-26.0
246	489.99999631	-244.0
311	489.99999493	-179.0
314	489.99999651	-176.0
234	489.99999647	-256.0
305	489.99999527	-185.0
470	489.99999485	-20.0
459	489.99999375	-31.0
427	489.99999388	-63.0

Mean Square Error = 36104.903226

Desired Output	Predict	Error
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457	321.39022358	135.61
290	252.58780433	37.41
333	317.07232487	15.93
490	321.48450411	168.52
270	206.92256827	63.08
211	207.22844775	3.77
490	321.48357509	168.52
300	220.93461288	79.07
232	208.63938950	23.36
471	321.44747602	149.55
315	312.10281900	2.9
308	305.40752460	2.59
478	321.47033947	156.53
328	317.33698805	10.66
489	321.48344196	167.52
486	321.48337580	164.52
253	259.77661749	-6.78
393	320.66206432	72.34
374	319.66915661	54.33
385	320.40958475	64.59
209	206.80177054	2.2
217	205.68988333	11.31
231	208.45651756	22.54
297	290.26165433	6.74
444	321.30863321	122.69
490	321.48487400	168.52
236	208.59019253	27.41
470	321.46450179	148.54
485	321.48405136	163.52
224	192.31793183	31.68
345	318.16204764	26.84

Mean Square Error = 9599.248984

Desired Output	Predict	Error
265	312.23579184	-47.24
362	321.21916839	40.78
455	321.48289356	133.52
156	166.95350864	-10.95
298	320.06643554	-22.07
405	321.35416392	83.65
209	245.25987243	-36.26
490	321.49694047	168.5
457	321.48015172	135.52
328	320.99315531	7.01
325	320.97979834	4.02
469	321.49069946	147.51
335	320.94299456	14.06
172	171.47818153	0.52
293	319.36532318	-26.37
178	173.56576766	4.43
212	246.90694678	-34.91
271	312.88053467	-41.88
398	321.29236753	76.71
292	316.80429076	-24.8
412	321.46258598	90.54
313	320.59211898	-7.59
484	321.49553678	162.5
247	289.24987230	-42.25
243	254.98827223	-11.99

490	321.49658069	168.5
214	244.25036825	-30.25
451	321.48507870	129.51
380	321.12661366	58.87
215	242.18934811	-27.19
153	164.68817519	-11.69

Mean Square Error = 6342.604881

Desired Output	Predict	Error
437	321.49887479	115.5
291	321.49689646	-30.5
260	321.48483888	-61.48
155	292.65224285	-137.65
333	321.49718404	11.5
470	321.49900223	148.5
208	321.47424039	-113.47
420	321.49873876	98.5
188	305.33491486	-117.33
417	321.49869807	95.5
262	321.49539506	-59.5
467	321.49892065	145.5
153	284.51878195	-131.52
251	321.49467026	-70.49
242	321.48597713	-79.49
390	321.49863251	68.5
475	321.49907587	153.5
268	321.49562605	-53.5
315	321.49784716	-6.5
160	296.75711724	-136.76
489	321.49910912	167.5
340	321.49540226	18.5
238	321.48733730	-83.49
416	321.49878689	94.5
456	321.49903262	134.5
470	321.49900245	148.5
153	284.41667231	-131.42
344	321.49835605	22.5
445	321.49855551	123.5
376	321.49859027	54.5
360	321.49325727	38.51

Mean Square Error = 10636.426048

Desired Output	Predict	Error
234	153.00040194	81.0
249	153.00039158	96.0
296	153.00037525	143.0
317	153.00036593	164.0
339	153.00034894	186.0
328	153.00039881	175.0
294	153.00036960	141.0
405	153.00033803	252.0
490	153.00031667	337.0
305	153.00036738	152.0
441	153.00032185	288.0
490	153.00031843	337.0
248	153.00037957	95.0
232	153.00039823	79.0

239		153.00041354		86.0
250		153.00039470		97.0
433		153.00036095		280.0
294		153.00037481		141.0
330		153.00038940		177.0
218		153.00040620		65.0
241		153.00039194		88.0
246		153.00044031		93.0
300		153.00036600		147.0
331		153.00037652		178.0
428		153.00036474		275.0
450		153.00035707		297.0
296		153.00036847		143.0
245		153.00039211		92.0
396		153.00033106		243.0
357		153.00034979		204.0
490		153.00030959		337.0

Mean Square Error = 38306.032258

Desired Output		Predict		Error
356		489.98269709		-133.98
454		489.98269822		-35.98
230		489.98262076		-259.98
259		489.98256118		-230.98
288		489.98267814		-201.98
327		489.98269136		-162.98
377		489.98269680		-112.98
246		489.98265187		-243.98
360		489.98269774		-129.98
468		489.98270110		-21.98
472		489.98269415		-17.98
153		489.98245029		-336.98
361		489.98269522		-128.98
207		489.98249637		-282.98
447		489.98268909		-42.98
237		489.98252447		-252.98
231		489.98264009		-258.98
153		489.98245674		-336.98
303		489.98268123		-186.98
469		489.98270042		-20.98
467		489.98270102		-22.98
433		489.98270091		-56.98
294		489.98267444		-195.98
436		489.98270119		-53.98
478		489.98269706		-11.98
308		489.98268595		-181.98
156		489.98246364		-333.98
328		489.98267975		-161.98
465		489.98270096		-24.98
465		489.98269993		-24.98
215		489.98261863		-274.98

Mean Square Error = 34925.133303

Desired Output		Predict		Error
286		489.99999728		-204.0
315		489.99999728		-175.0
230		489.99999757		-260.0

470	489.99999640	-20.0
215	489.99999764	-275.0
234	489.99999753	-256.0
255	489.99999757	-235.0
410	489.99999674	-80.0
315	489.99999711	-175.0
240	489.99999761	-250.0
300	489.99999720	-190.0
238	489.99999762	-252.0
210	489.99999763	-280.0
404	489.99999667	-86.0
252	489.99999739	-238.0
244	489.99999752	-246.0
153	489.99999806	-337.0
221	489.99999766	-269.0
209	489.99999763	-281.0
208	489.99999761	-282.0
309	489.99999715	-181.0
307	489.99999718	-183.0
450	489.99999646	-40.0
216	489.99999765	-274.0
320	489.99999715	-170.0
284	489.99999729	-206.0
465	489.99999693	-25.0
236	489.99999752	-254.0
245	489.99999760	-245.0
322	489.99999727	-168.0
431	489.99999653	-59.0

Mean Square Error = 46911.612903

***** Mean Square Error Average : 20900.6343 *****
6342.604881

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.88

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
465	321.50250628	143.5
420	321.50416744	98.5
217	321.51096496	-104.51
475	321.50246838	153.5
247	321.50773137	-74.51
153	321.53865646	-168.54
456	321.50245226	134.5
259	321.51834468	-62.52
433	321.50249594	111.5
160	321.53528764	-161.54
469	321.50279355	147.5
490	321.50266286	168.5
268	321.50595188	-53.51
344	321.50326732	22.5
300	321.50873640	-21.51
457	321.50309490	135.5

376	321.50279353	54.5
178	321.53263242	-143.53
260	321.50944597	-61.51
462	321.50248925	140.5
214	321.51136164	-107.51
315	321.50613845	-6.51
211	321.51152811	-110.51
288	321.50588192	-33.51
246	321.50789282	-75.51
232	321.50897754	-89.51
156	321.53574374	-165.54
243	321.50808187	-78.51
464	321.50243962	142.5
251	321.50730407	-70.51
300	321.50482989	-21.5

Mean Square Error = 12150.201852

Desired Output	Predict	Error
457	321.49999315	135.5
314	321.49996768	-7.5
308	321.49998709	-13.5
311	321.49998758	-10.5
393	321.49999167	71.5
405	321.49998706	83.5
353	321.49999016	31.5
420	321.49999212	98.5
240	321.49994386	-81.5
485	321.49999371	163.5
315	321.49998645	-6.5
413	321.49999173	91.5
215	321.49988717	-106.5
445	321.49999098	123.5
212	321.49990121	-109.5
333	321.49998923	11.5
232	321.49989138	-89.5
484	321.49999386	162.5
327	321.49998909	5.5
317	321.49998654	-4.5
471	321.49999323	149.5
153	321.46546823	-168.47
444	321.49999289	122.5
234	321.49994735	-87.5
231	321.49993277	-90.5
210	321.49989701	-111.5
440	321.49999297	118.5
210	321.49989803	-111.5
466	321.49999263	144.5
490	321.49999387	168.5
322	321.49998657	0.5

Mean Square Error = 10523.407771

Desired Output	Predict	Error
329	321.00230126	8.0
448	321.47540241	126.52
341	321.18304081	19.82
460	321.47829479	138.52
410	321.42364183	88.58

450	321.46342963	128.54
326	320.36928905	5.63
188	177.66885195	10.33
470	321.48684911	148.51
250	275.61973497	-25.62
237	234.91965743	2.08
450	321.47580638	128.52
302	319.80647161	-17.81
271	315.25293954	-44.25
253	313.61347477	-60.61
459	321.48130124	137.52
444	321.47062074	122.53
208	248.38059985	-40.38
303	319.93425482	-16.93
328	321.09255233	6.91
286	317.27775069	-31.28
486	321.49395117	164.51
427	321.45102265	105.55
288	319.06830587	-31.07
209	247.28384225	-38.28
296	320.31372281	-24.31
437	321.46292065	115.54
424	321.43037513	102.57
430	321.45113964	108.55
241	254.14978292	-13.15
307	320.50858205	-13.51

Mean Square Error = 7078.864829

Desired Output	Predict	Error
155	490.00000000	-335.0
428	489.99999999	-62.0
288	489.99999999	-202.0
431	489.99999998	-59.0
323	489.99999999	-167.0
262	489.99999999	-228.0
156	490.00000000	-334.0
270	489.99999999	-220.0
330	489.99999999	-160.0
213	489.99999999	-277.0
360	489.99999999	-130.0
374	489.99999999	-116.0
154	490.00000000	-336.0
303	489.99999999	-187.0
308	489.99999999	-182.0
236	489.99999999	-254.0
259	489.99999999	-231.0
246	490.00000000	-244.0
313	489.99999999	-177.0
490	489.99999998	0.0
230	489.99999999	-260.0
486	489.99999998	-4.0
447	489.99999998	-43.0
164	490.00000000	-326.0
314	489.99999999	-176.0
471	489.99999998	-19.0
276	489.99999999	-214.0
168	490.00000000	-322.0
447	489.99999999	-43.0
465	489.99999999	-25.0

325		489.99999999		-165.0
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Mean Square Error = 42221.16129

Desired Output		Predict		Error
427		321.50008892		105.5
235		321.50124827		-86.5
360		321.50012269		38.5
465		321.50017227		143.5
290		321.50266241		-31.5
467		321.50008767		145.5
469		321.50007246		147.5
156		321.52730137		-165.53
416		321.50009065		94.5
422		321.50008755		100.5
489		321.50006028		167.5
280		321.50386867		-41.5
390		321.50011374		68.5
153		321.53136372		-168.53
468		321.50007242		146.5
156		321.52752948		-165.53
404		321.50009709		82.5
236		321.50149418		-85.5
455		321.50007583		133.5
470		321.50007360		148.5
240		321.50151096		-81.5
245		321.50106957		-76.5
478		321.50008433		156.5
356		321.50012897		34.5
401		321.50010942		79.5
357		321.50014915		35.5
216		321.50233663		-105.5
247		321.50091652		-74.5
340		321.50098528		18.5
339		321.50015316		17.5
468		321.50014358		146.5

Mean Square Error = 12300.378152

Desired Output		Predict		Error
297		489.99910702		-193.0
370		489.99895799		-120.0
255		489.99892977		-235.0
253		489.99893531		-237.0
153		489.99843437		-337.0
290		489.99897519		-200.0
232		489.99880149		-258.0
239		489.99885031		-251.0
345		489.99895872		-145.0
305		489.99892818		-185.0
305		489.99892730		-185.0
340		489.99913806		-150.0
320		489.99898523		-170.0
315		489.99896185		-175.0
248		489.99891877		-242.0
417		489.99895366		-73.0
331		489.99909211		-159.0
291		489.99896078		-199.0
292		489.99888748		-198.0

265	489.99889666	-225.0
230	489.99880985	-260.0
483	489.99947653	-7.0
390	489.99908197	-100.0
291	489.99896420	-199.0
245	489.99885779	-245.0
192	489.99851233	-298.0
308	489.99897646	-182.0
153	489.99844596	-337.0
207	489.99855397	-283.0
454	489.99916449	-36.0
224	489.99859721	-266.0

Mean Square Error = 45199.806452

Desired Output	Predict	Error
438	321.50176990	116.5
249	321.50408102	-72.5
333	321.50271589	11.5
250	321.50387670	-71.5
209	321.50823100	-112.51
396	321.50147157	74.5
252	321.50374940	-69.5
470	321.50130468	148.5
441	321.50135334	119.5
230	321.50825068	-91.51
284	321.50290971	-37.5
221	321.50845384	-100.51
238	321.50774129	-83.51
470	321.50135518	148.5
470	321.50152302	148.5
294	321.50297060	-27.5
328	321.50537615	6.49
335	321.50179495	13.5
322	321.50289548	0.5
361	321.50170707	39.5
300	321.50251906	-21.5
270	321.51374361	-51.51
319	321.50202496	-2.5
225	321.50840133	-96.51
245	321.50729863	-76.51
489	321.50124406	167.5
280	321.50297405	-41.5
412	321.50249443	90.5
322	321.50202891	0.5
306	321.50228770	-15.5
274	321.50311187	-47.5

Mean Square Error = 6958.124865

Desired Output	Predict	Error
412	321.50458506	90.5
488	321.50395552	166.5
172	321.58499101	-149.58
390	321.50551616	68.49
468	321.50392656	146.5
246	321.50775187	-75.51
319	321.50447799	-2.5
310	321.50476662	-11.5

235	321.51161353	-86.51
460	321.50392675	138.5
215	321.51257231	-106.51
213	321.51245803	-108.51
475	321.50423273	153.5
209	321.51257303	-112.51
490	321.50393471	168.5
307	321.50478108	-14.5
350	321.50725224	28.49
290	321.50533203	-31.51
490	321.50393918	168.5
256	321.50599676	-65.51
240	321.51134107	-81.51
349	321.50417351	27.5
247	321.50755769	-74.51
337	321.50426790	15.5
153	321.60523424	-168.61
397	321.50388339	75.5
382	321.50390737	60.5
305	321.50490357	-16.5
298	321.50502334	-23.51
315	321.50448492	-6.5
405	321.50380623	83.5

Mean Square Error = 9619.294829

Desired Output	Predict	Error
490	490.00000000	0.0
311	490.00000000	-179.0
309	490.00000000	-181.0
377	490.00000000	-113.0
208	490.00000000	-282.0
327	490.00000000	-163.0
215	490.00000000	-275.0
234	490.00000000	-256.0
365	490.00000000	-125.0
238	490.00000000	-252.0
209	490.00000000	-281.0
208	490.00000000	-282.0
214	490.00000000	-276.0
481	490.00000000	-9.0
215	490.00000000	-275.0
288	490.00000000	-202.0
294	490.00000000	-196.0
490	490.00000000	0.0
242	490.00000000	-248.0
233	490.00000000	-257.0
380	490.00000000	-110.0
410	490.00000000	-80.0
211	490.00000000	-279.0
481	490.00000000	-9.0
328	490.00000000	-162.0
385	490.00000000	-105.0
234	490.00000000	-256.0
153	490.00000000	-337.0
209	490.00000000	-281.0
165	490.00000000	-325.0
294	490.00000000	-196.0

Mean Square Error = 46996.516129

Desired Output	Predict	Error
293	321.50240772	-28.5
351	321.50169361	29.5
390	321.50161227	68.5
478	321.50218355	156.5
209	321.50411003	-112.5
303	321.50401888	-18.5
296	321.50216529	-25.5
218	321.50383351	-103.5
333	321.50279080	11.5
436	321.50166803	114.5
252	321.50271138	-69.5
328	321.50250204	6.5
317	321.50208790	-4.5
381	321.50174989	59.5
471	321.50205321	149.5
325	321.50241047	3.5
244	321.50292226	-77.5
368	321.50163607	46.5
488	321.50258529	166.5
435	321.50326093	113.5
490	321.50253008	168.5
231	321.50314616	-90.5
398	321.50249419	76.5
451	321.50190967	129.5
362	321.50312525	40.5
471	321.50207461	149.5
294	321.50240022	-27.5
470	321.50209106	148.5
467	321.50194115	145.5
370	321.50271754	48.5
433	321.50214697	111.5

Mean Square Error = 9354.766129

***** Mean Square Error Average : 20240.2522 *****
6958.124865

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.89

Momentum rate : 0.07

Activaison Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
291	153.00015185	138.0
291	153.00015287	138.0
296	153.00015598	143.0
398	153.00015218	245.0
246	153.00012644	93.0
246	153.00012616	93.0
270	153.00011638	117.0
489	153.00023408	336.0
340	153.00012479	187.0
302	153.00014564	149.0

207	153.00008873	54.0
305	153.00016072	152.0
234	153.00012250	81.0
314	153.00012004	161.0
250	153.00011112	97.0
430	153.00024332	277.0
240	153.00011762	87.0
450	153.00019973	297.0
236	153.00012310	83.0
341	153.00019269	188.0
326	153.00011778	173.0
315	153.00018006	162.0
168	153.00008819	15.0
216	153.00010913	63.0
315	153.00014384	162.0
270	153.00009336	117.0
251	153.00013269	98.0
331	153.00014715	178.0
467	153.00022320	314.0
153	153.00008692	-0.0
437	153.00024527	284.0

Mean Square Error = 29777.612903

Desired Output	Predict	Error
231	489.99976813	-259.0
328	489.99981495	-162.0
381	489.99984417	-109.0
457	489.99985390	-33.0
245	489.99975660	-245.0
420	489.99982975	-70.0
234	489.99976525	-256.0
465	489.99985407	-25.0
427	489.99985219	-63.0
360	489.99984427	-130.0
431	489.99985273	-59.0
210	489.99974643	-280.0
390	489.99981153	-100.0
306	489.99982276	-184.0
288	489.99980920	-202.0
405	489.99984833	-85.0
294	489.99981442	-196.0
412	489.99982614	-78.0
156	489.99963611	-334.0
296	489.99981785	-194.0
322	489.99980788	-168.0
456	489.99985531	-34.0
308	489.99982071	-182.0
215	489.99974636	-275.0
413	489.99984850	-77.0
153	489.99962884	-337.0
428	489.99983271	-62.0
475	489.99984182	-15.0
288	489.99976912	-202.0
213	489.99974681	-277.0
328	489.99977665	-162.0

Mean Square Error = 33263.903226

Desired Output	Predict	Error
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311	321.50062556	-10.5
288	321.50072026	-33.5
230	321.50133273	-91.5
294	321.50069218	-27.5
256	321.50082143	-65.5
370	321.50083280	48.5
300	321.50116889	-21.5
315	321.50061425	-6.5
310	321.50064610	-11.5
469	321.50046904	147.5
305	321.50065969	-16.5
153	321.51075572	-168.51
327	321.50058264	5.5
376	321.50052278	54.5
470	321.50046901	148.5
328	321.50064304	6.5
225	321.50173696	-96.5
427	321.50049512	105.5
210	321.50158427	-111.5
192	321.50911186	-129.51
160	321.51028549	-161.51
322	321.50059499	0.5
303	321.50065159	-18.5
317	321.50063875	-4.5
165	321.51015718	-156.51
255	321.50129979	-66.5
455	321.50047606	133.5
440	321.50048049	118.5
488	321.50045489	166.5
232	321.50162031	-89.5
335	321.50056643	13.5

Mean Square Error = 8579.099045

Desired Output	Predict	Error
240	321.43396266	-81.43
286	321.48454874	-35.48
230	321.35361376	-91.35
236	321.42232075	-85.42
470	321.49752085	148.5
249	321.47592602	-72.48
344	321.49358547	22.51
370	321.49429977	48.51
215	321.37497110	-106.37
329	321.49266283	7.51
490	321.49770077	168.5
268	321.48097432	-53.48
246	315.46951932	-69.47
469	321.49698965	147.5
211	321.39139586	-110.39
297	321.45484824	-24.45
265	321.48053779	-56.48
470	321.49718372	148.5
490	321.49769980	168.5
475	321.49749659	153.5
247	321.46354013	-74.46
353	321.49377700	31.51
243	321.43975046	-78.44
478	321.49753243	156.5

153	154.87401047	-1.87
481	321.49756265	159.5
221	321.33518347	-100.34
253	321.47924739	-68.48
238	321.44521248	-83.45
209	321.38241653	-112.38
436	321.49649929	114.5

Mean Square Error = 10418.380748

Desired Output	Predict	Error
489	321.45729560	167.54
280	237.82771523	42.17
462	321.42676131	140.57
490	321.45905316	168.54
320	320.86330475	-0.86
309	320.84197913	-11.84
488	321.45695084	166.54
247	314.16578316	-67.17
466	321.41534975	144.58
481	321.45703058	159.54
457	321.38506933	135.61
153	202.92940409	-49.93
250	318.11216561	-68.11
471	321.43160321	149.57
472	321.45563740	150.54
307	320.67388279	-13.67
390	321.30888299	68.69
333	320.80223205	12.2
271	319.04296327	-48.04
327	320.61818977	6.38
303	320.69316326	-17.69
486	321.45687931	164.54
467	321.43102881	145.57
294	320.15012403	-26.15
208	273.74342002	-65.74
235	296.19414669	-61.19
444	321.41283946	122.59
214	264.49275309	-50.49
459	321.42352897	137.58
300	320.67307911	-20.67
420	321.33913513	98.66

Mean Square Error = 10926.129523

Desired Output	Predict	Error
390	321.49999985	68.5
308	321.49999979	-13.5
317	321.49999982	-4.5
412	321.49999982	90.5
218	321.49999929	-103.5
483	321.49999986	161.5
435	321.49999983	113.5
232	321.49999953	-89.5
333	321.49999981	11.5
280	321.49999977	-41.5
349	321.49999983	27.5
156	321.49988419	-165.5
234	321.49999960	-87.5

209	321.49999939	-112.5
215	321.49999934	-106.5
444	321.49999985	122.5
445	321.49999984	123.5
447	321.49999986	125.5
290	321.49999941	-31.5
315	321.49999981	-6.5
211	321.49999942	-110.5
470	321.49999986	148.5
345	321.49999983	23.5
298	321.49999980	-23.5
374	321.49999984	52.5
155	321.49985692	-166.5
328	321.49999983	6.5
240	321.49999946	-81.5
314	321.49999971	-7.5
235	321.49999941	-86.5
351	321.49999984	29.5

Mean Square Error = 8400.314516

Desired Output	Predict	Error
245	489.99999720	-245.0
410	489.99999651	-80.0
325	489.99999668	-165.0
465	489.99999613	-25.0
490	489.99999611	0.0
478	489.99999602	-12.0
433	489.99999649	-57.0
450	489.99999632	-40.0
247	489.99999712	-243.0
410	489.99999644	-80.0
368	489.99999652	-122.0
385	489.99999649	-105.0
490	489.99999612	0.0
154	489.99999869	-336.0
214	489.99999745	-276.0
357	489.99999656	-133.0
248	489.99999705	-242.0
156	489.99999867	-334.0
213	489.99999744	-277.0
259	489.99999797	-231.0
244	489.99999722	-246.0
377	489.99999652	-113.0
416	489.99999642	-74.0
230	489.99999732	-260.0
337	489.99999661	-153.0
470	489.99999619	-20.0
313	489.99999669	-177.0
485	489.99999609	-5.0
323	489.99999666	-167.0
339	489.99999660	-151.0
156	489.99999868	-334.0

Mean Square Error = 34237.645161

Desired Output	Predict	Error
405	153.11233232	251.89
486	153.11004666	332.89

448	153.11037868	294.89
311	153.11218186	157.89
350	153.11510448	196.88
153	153.13326402	-0.13
424	153.11070103	270.89
252	153.11432918	98.89
471	153.11031764	317.89
470	153.11040636	316.89
362	153.11356796	208.89
464	153.11015944	310.89
460	153.11073182	306.89
253	153.11419534	99.89
300	153.11266393	146.89
238	153.11781646	84.88
284	153.11331120	130.89
303	153.11617611	149.88
396	153.11082619	242.89
393	153.11093711	239.89
239	153.11595626	85.88
290	153.11335382	136.89
447	153.11138694	293.89
404	153.11078117	250.89
454	153.11092373	300.89
438	153.11133209	284.89
468	153.11082921	314.89
242	153.11625386	88.88
322	153.11252138	168.89
365	153.11128802	211.89
490	153.11003550	336.89

Mean Square Error = 54194.086174

Desired Output	Predict	Error
390	153.00053993	237.0
422	153.00091975	269.0
460	153.00102183	307.0
441	153.00094426	288.0
276	153.00057079	123.0
259	153.00053850	106.0
471	153.00095261	318.0
233	153.00044301	80.0
451	153.00099514	298.0
164	153.00028034	11.0
172	153.00028282	19.0
262	153.00054436	109.0
380	153.00053236	227.0
252	153.00051659	99.0
245	153.00046477	92.0
471	153.00095999	318.0
333	153.00072033	180.0
468	153.00097873	315.0
417	153.00088047	264.0
360	153.00049129	207.0
237	153.00030562	84.0
319	153.00069901	166.0
153	153.00027505	-0.0
308	153.00066284	155.0
294	153.00059330	141.0
274	153.00056462	121.0
209	153.00038986	56.0

212		153.00039085		59.0
178		153.00028410		25.0
215		153.00039162		62.0
361		153.00077881		208.0

Mean Square Error = 35592.774194

Desired Output		Predict		Error
305		489.99999812		-185.0
224		489.99999918		-266.0
241		489.99999848		-249.0
330		489.99999813		-160.0
209		489.99999862		-281.0
208		489.99999860		-282.0
188		489.99999928		-302.0
209		489.99999862		-281.0
292		489.99999816		-198.0
231		489.99999851		-259.0
290		489.99999816		-200.0
288		489.99999817		-202.0
325		489.99999805		-165.0
401		489.99999802		-89.0
209		489.99999862		-281.0
433		489.99999800		-57.0
382		489.99999802		-108.0
293		489.99999814		-197.0
356		489.99999803		-134.0
214		489.99999862		-276.0
465		489.99999795		-25.0
340		489.99999838		-150.0
484		489.99999799		-6.0
208		489.99999861		-282.0
397		489.99999802		-93.0
260		489.99999848		-230.0
468		489.99999800		-22.0
307		489.99999810		-183.0
490		489.99999797		0.0
153		489.99999933		-337.0
319		489.99999806		-171.0

Mean Square Error = 42299.967742

***** Mean Square Error Average : 26768.9913 *****
8400.314516

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.9

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
472		321.49999979		150.5
243		321.49999847		-78.5
252		321.49999924		-69.5
490		321.49999982		168.5

401	321.49999977	79.5
232	321.49999794	-89.5
470	321.49999981	148.5
213	321.49999637	-108.5
398	321.49999959	76.5
475	321.49999980	153.5
456	321.49999981	134.5
328	321.49999861	6.5
251	321.49999922	-70.5
224	321.49975865	-97.5
231	321.49999804	-90.5
300	321.49999960	-21.5
468	321.49999977	146.5
247	321.49999886	-74.5
396	321.49999978	74.5
325	321.49999969	3.5
478	321.49999981	156.5
156	321.49905127	-165.5
327	321.49999951	5.5
153	321.49885820	-168.5
252	321.49999927	-69.5
208	321.49999673	-113.5
237	321.49985997	-84.5
481	321.49999981	159.5
234	321.49999793	-87.5
470	321.49999980	148.5
450	321.49999976	128.5

Mean Square Error = 12589.024194

Desired Output	Predict	Error
239	489.99966926	-251.0
478	489.99973883	-12.0
424	489.99972481	-66.0
207	489.99963792	-283.0
471	489.99973372	-19.0
322	489.99968749	-168.0
307	489.99969266	-183.0
481	489.99974108	-9.0
405	489.99971716	-85.0
209	489.99966334	-281.0
382	489.99971867	-108.0
457	489.99973435	-33.0
333	489.99969040	-157.0
351	489.99971195	-139.0
215	489.99966242	-275.0
455	489.99973386	-35.0
393	489.99971868	-97.0
303	489.99967309	-187.0
490	489.99974827	0.0
236	489.99966929	-254.0
323	489.99970168	-167.0
368	489.99971630	-122.0
296	489.99969067	-194.0
447	489.99970293	-43.0
240	489.99966422	-250.0
405	489.99969432	-85.0
356	489.99971337	-134.0
428	489.99970363	-62.0
464	489.99974231	-26.0

345		489.99970694		-145.0
248		489.99967435		-242.0

Mean Square Error = 25562.774194

Desired Output		Predict		Error
370		153.00000025		217.0
365		153.00000025		212.0
471		153.00000024		318.0
376		153.00000024		223.0
470		153.00000024		317.0
350		153.00000025		197.0
259		153.00000025		106.0
153		153.00000024		-0.0
240		153.00000025		87.0
262		153.00000025		109.0
230		153.00000025		77.0
153		153.00000024		-0.0
488		153.00000024		335.0
327		153.00000025		174.0
240		153.00000025		87.0
490		153.00000025		337.0
286		153.00000025		133.0
294		153.00000025		141.0
234		153.00000025		81.0
209		153.00000025		56.0
333		153.00000025		180.0
212		153.00000025		59.0
462		153.00000024		309.0
490		153.00000024		337.0
374		153.00000025		221.0
340		153.00000025		187.0
217		153.00000024		64.0
460		153.00000024		307.0
164		153.00000024		11.0
340		153.00000025		187.0
468		153.00000024		315.0

Mean Square Error = 41648.580645

Desired Output		Predict		Error
288		321.49650136		-33.5
241		321.48638769		-80.49
255		321.48531461		-66.49
156		165.31740161		-9.32
300		321.48933832		-21.49
215		321.46315837		-106.46
331		321.49715241		9.5
360		321.49463659		38.51
471		321.49827078		149.5
488		321.49838453		166.5
390		321.49699262		68.5
349		321.49773756		27.5
441		321.49818514		119.5
390		321.49799952		68.5
242		321.48745936		-79.49
300		321.49703571		-21.5
215		321.46428525		-106.46
467		321.49823025		145.5

427	321.49813952	105.5
214	321.46661257	-107.47
297	321.48710347	-24.49
468	321.49833837	146.5
290	321.49649332	-31.5
265	321.49575729	-56.5
270	321.48805302	-51.49
305	321.49706448	-16.5
172	165.38745545	6.61
445	321.49797918	123.5
253	321.49531608	-68.5
410	321.49796016	88.5
308	321.49659075	-13.5

Mean Square Error = 7068.019655

Desired Output	Predict	Error
298	321.49999840	-23.5
315	321.49999854	-6.5
325	321.49999848	3.5
433	321.49999870	111.5
469	321.49999889	147.5
308	321.49999848	-13.5
430	321.49999884	108.5
153	321.44155616	-168.44
328	321.49999848	6.5
218	321.49999235	-103.5
245	321.49999682	-76.5
435	321.49999870	113.5
235	321.49999384	-86.5
209	321.49999367	-112.5
154	321.45935459	-167.46
315	321.49999846	-6.5
448	321.49999888	126.5
412	321.49999858	90.5
280	321.49999811	-41.5
329	321.49999863	7.5
454	321.49999880	132.5
431	321.49999885	109.5
315	321.49999854	-6.5
293	321.49999834	-28.5
296	321.49999836	-25.5
490	321.49999892	168.5
433	321.49999884	111.5
260	321.49999603	-61.5
156	321.46665623	-165.47
234	321.49999585	-87.5
153	321.44170861	-168.44

Mean Square Error = 10253.935152

Desired Output	Predict	Error
215	153.00087982	62.0
381	153.00055755	228.0
317	153.00062848	164.0
270	153.00106204	117.0
319	153.00061190	166.0
208	153.00086370	55.0
233	153.00082638	80.0

420	153.00053583	267.0
436	153.00050767	283.0
231	153.00083798	78.0
209	153.00087683	56.0
238	153.00086972	85.0
466	153.00050580	313.0
457	153.00052967	304.0
178	153.00146084	25.0
390	153.00064548	237.0
490	153.00042828	337.0
305	153.00064382	152.0
232	153.00089047	79.0
153	153.00152802	-0.0
422	153.00052287	269.0
214	153.00087407	61.0
225	153.00090001	72.0
274	153.00069300	121.0
483	153.00043408	330.0
230	153.00083526	77.0
303	153.00063885	150.0
280	153.00097450	127.0
155	153.00150735	2.0
385	153.00055442	232.0
247	153.00073804	94.0

Mean Square Error = 32365.774194

Desired Output	Predict	Error
291	321.50244364	-30.5
160	321.54497091	-161.54
486	321.50228945	164.5
210	321.50493202	-111.5
236	321.50390142	-85.5
246	321.50323066	-75.5
288	321.50370583	-33.5
221	321.50506201	-100.51
288	321.50242410	-33.5
490	321.50231385	168.5
249	321.50290453	-72.5
390	321.50219949	68.5
370	321.50219128	48.5
250	321.50283341	-71.5
344	321.50217997	22.5
208	321.50484118	-113.5
404	321.50222179	82.5
308	321.50226739	-13.5
302	321.50249445	-19.5
245	321.50337553	-76.5
290	321.50540197	-31.51
209	321.50495886	-112.5
475	321.50233092	153.5
380	321.50259943	58.5
214	321.50491848	-107.5
353	321.50218598	31.5
470	321.50224869	148.5
467	321.50228069	145.5
444	321.50229755	122.5
319	321.50224206	-2.5
485	321.50230932	163.5

Mean Square Error = 9756.106832

Desired Output	Predict	Error
232	489.99998721	-258.0
246	489.99998560	-244.0
294	489.99997942	-196.0
209	489.99998913	-281.0
469	489.99996768	-21.0
156	489.99999524	-334.0
322	489.99997589	-168.0
314	489.99998661	-176.0
427	489.99996854	-63.0
335	489.99997380	-155.0
294	489.99998095	-196.0
417	489.99996972	-73.0
333	489.99997490	-157.0
256	489.99998251	-234.0
377	489.99997174	-113.0
486	489.99996328	-4.0
440	489.99996682	-50.0
438	489.99997391	-52.0
311	489.99997668	-179.0
315	489.99998077	-175.0
413	489.99997012	-77.0
188	489.99999502	-302.0
303	489.99997799	-187.0
489	489.99996309	-1.0
437	489.99996757	-53.0
271	489.99998163	-219.0
153	489.99999541	-337.0
247	489.99998516	-243.0
416	489.99996863	-74.0
341	489.99997438	-149.0
230	489.99998920	-260.0

Mean Square Error = 35394.870968

Desired Output	Predict	Error
357	321.50106400	35.5
465	321.50114039	143.5
311	321.50115039	-10.5
320	321.50117291	-1.5
337	321.50108801	15.5
410	321.50101752	88.5
465	321.50103025	143.5
284	321.50124690	-37.5
211	321.50221920	-110.5
450	321.50100535	128.5
245	321.50205504	-76.5
165	321.51352306	-156.51
444	321.50100686	122.5
465	321.50100285	143.5
192	321.51199167	-129.51
460	321.50103647	138.5
305	321.50118489	-16.5
306	321.50115098	-15.5
268	321.50130315	-53.5
292	321.50120865	-29.5
216	321.50224636	-105.5

307	321.50117703	-14.5
470	321.50108473	148.5
412	321.50127162	90.5
397	321.50103291	75.5
288	321.50125725	-33.5
168	321.51333724	-153.51
360	321.50103975	38.5
244	321.50164270	-77.5
328	321.50122649	6.5
309	321.50115890	-12.5

Mean Square Error = 8598.791623

Desired Output	Predict	Error
326	489.99830814	-164.0
235	489.99830554	-255.0
276	489.99831000	-214.0
470	489.99831381	-20.0
153	489.99823350	-337.0
250	489.99830365	-240.0
259	489.99830939	-231.0
459	489.99831374	-31.0
313	489.99831157	-177.0
484	489.99831410	-6.0
317	489.99831174	-173.0
291	489.99831058	-199.0
490	489.99831416	0.0
361	489.99831261	-129.0
246	489.99827717	-244.0
322	489.99831131	-168.0
451	489.99831381	-39.0
294	489.99831074	-196.0
330	489.99831053	-160.0
447	489.99831364	-43.0
314	489.99830730	-176.0
153	489.99823277	-337.0
253	489.99830916	-237.0
290	489.99831040	-200.0
420	489.99831208	-70.0
328	489.99831208	-162.0
213	489.99830164	-277.0
362	489.99830986	-128.0
471	489.99831378	-19.0
489	489.99831413	-1.0
310	489.99831129	-180.0

Mean Square Error = 33355.580645

***** Mean Square Error Average : 21659.3458 *****
7068.019655

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.91

Momentum rate : 0.07

Activiaon Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
471	489.99997616	-19.0
288	489.99997929	-202.0
428	489.99997781	-62.0
303	489.99997888	-187.0
335	489.99997797	-155.0
215	489.99998029	-275.0
155	489.99997955	-335.0
333	489.99997813	-157.0
216	489.99998025	-274.0
433	489.99997634	-57.0
462	489.99997580	-28.0
214	489.99998039	-276.0
259	489.99998133	-231.0
280	489.99997914	-210.0
268	489.99997936	-222.0
390	489.99997960	-100.0
231	489.99998009	-259.0
286	489.99997908	-204.0
230	489.99998018	-260.0
290	489.99997914	-200.0
398	489.99997866	-92.0
292	489.99997895	-198.0
294	489.99997894	-196.0
308	489.99997860	-182.0
209	489.99998041	-281.0
315	489.99997950	-175.0
270	489.99998003	-220.0
450	489.99997722	-40.0
249	489.99997939	-241.0
315	489.99997853	-175.0
472	489.99997641	-18.0

Mean Square Error = 39117.83871

Desired Output	Predict	Error
280	321.50658540	-41.51
470	321.50031412	148.5
412	321.50066241	90.5
471	321.50034683	149.5
489	321.50031688	167.5
188	321.53328427	-133.53
413	321.50039126	91.5
360	321.50042805	38.5
353	321.50048676	31.5
212	321.50332512	-109.5
234	321.50194642	-87.5
390	321.50095154	68.5
156	321.53807205	-165.54
438	321.50050420	116.5
382	321.50040230	60.5
396	321.50038844	74.5
260	321.50240817	-61.5
308	321.50069320	-13.5
422	321.50036299	100.5
390	321.50041309	68.5
238	321.50197738	-83.5
153	321.54101479	-168.54
305	321.50072874	-16.5

303	321.50068575	-18.5
390	321.50039558	68.5
490	321.50031139	168.5
232	321.50234851	-89.5
412	321.50087858	90.5
153	321.54344777	-168.54
361	321.50046799	39.5
360	321.50150482	38.5

Mean Square Error = 10356.670832

Desired Output	Predict	Error
436	489.99264369	-53.99
467	489.99236322	-22.99
251	489.99006645	-238.99
270	489.98664479	-219.99
153	489.98540214	-336.99
417	489.99245876	-72.99
234	489.98907493	-255.99
215	489.98847370	-274.99
351	489.99212186	-138.99
250	489.98865831	-239.99
344	489.99206282	-145.99
337	489.99176229	-152.99
240	489.98860519	-249.99
362	489.98989507	-127.99
215	489.98847332	-274.99
168	489.98558273	-321.99
244	489.98952804	-245.99
276	489.99067968	-213.99
262	489.99042819	-227.99
328	489.99166723	-161.99
306	489.99132392	-183.99
230	489.98841675	-259.99
245	489.98960466	-244.99
490	489.99271162	0.01
224	489.98577017	-265.99
172	489.98561589	-317.99
370	489.98979490	-119.99
248	489.98996080	-241.99
488	489.99267117	-1.99
460	489.99277958	-29.99
232	489.98921693	-257.99

Mean Square Error = 45389.642035

Desired Output	Predict	Error
307	321.50146455	-14.5
247	321.50290116	-74.5
290	321.50814184	-31.51
356	321.50095333	34.5
376	321.50090610	54.5
444	321.50081548	122.5
405	321.50088306	83.5
322	321.50121964	0.5
490	321.50078061	168.5
451	321.50079122	129.5
481	321.50077452	159.5
322	321.50150092	0.5

210	321.50590213	-111.51
297	321.50628682	-24.51
250	321.50244295	-71.5
470	321.50125383	148.5
385	321.50093558	63.5
405	321.50154359	83.5
178	321.52729498	-143.53
489	321.50077632	167.5
327	321.50112052	5.5
465	321.50092195	143.5
305	321.50144666	-16.5
490	321.50078313	168.5
252	321.50231957	-69.5
410	321.50088469	88.5
237	321.52137350	-84.52
459	321.50080892	137.5
288	321.50389705	-33.5
265	321.50195105	-56.5
305	321.50146619	-16.5

Mean Square Error = 9546.551342

Desired Output	Predict	Error
235	321.50000000	-86.5
333	321.50000000	11.5
340	321.50000000	18.5
225	321.50000000	-96.5
486	321.50000000	164.5
209	321.50000000	-112.5
455	321.50000000	133.5
311	321.50000000	-10.5
245	321.50000000	-76.5
230	321.50000000	-91.5
424	321.50000000	102.5
294	321.50000000	-27.5
357	321.50000000	35.5
470	321.50000000	148.5
153	321.49977185	-168.5
165	321.49994102	-156.5
440	321.50000000	118.5
236	321.50000000	-85.5
374	321.50000000	52.5
208	321.50000000	-113.5
253	321.50000000	-68.5
319	321.50000000	-2.5
420	321.50000000	98.5
208	321.50000000	-113.5
427	321.50000000	105.5
315	321.50000000	-6.5
465	321.50000000	143.5
468	321.50000000	146.5
468	321.50000000	146.5
156	321.49990104	-165.5
246	321.50000000	-75.5

Mean Square Error = 11246.959677

Desired Output	Predict	Error
370	153.00000376	217.0

209	153.00000327	56.0
309	153.00000365	156.0
365	153.00000380	212.0
340	153.00000555	187.0
247	153.00000328	94.0
457	153.00000922	304.0
291	153.00000354	138.0
397	153.00000419	244.0
486	153.00008120	333.0
311	153.00000365	158.0
310	153.00000355	157.0
420	153.00000391	267.0
233	153.00000329	80.0
160	153.00000453	7.0
231	153.00000328	78.0
490	153.00005375	337.0
209	153.00000328	56.0
255	153.00000326	102.0
323	153.00000354	170.0
234	153.00000329	81.0
217	153.00000332	64.0
469	153.00001158	316.0
294	153.00000360	141.0
450	153.00000601	297.0
475	153.00022192	322.0
445	153.00000710	292.0
245	153.00000325	92.0
437	153.00000481	284.0
209	153.00000328	56.0
156	153.00000455	3.0

Mean Square Error = 39821.129032

Desired Output	Predict	Error
239	489.99999999	-251.0
330	489.99999999	-160.0
291	489.99999999	-199.0
315	489.99999999	-175.0
290	489.99999999	-200.0
468	489.99999999	-22.0
242	489.99999999	-248.0
246	489.99999999	-244.0
303	489.99999998	-187.0
300	489.99999999	-190.0
329	489.99999999	-161.0
350	489.99999999	-140.0
313	489.99999999	-177.0
368	489.99999999	-122.0
215	489.99999998	-275.0
457	489.99999999	-33.0
236	489.99999999	-254.0
308	489.99999999	-182.0
302	489.99999999	-188.0
467	489.99999999	-23.0
447	489.99999999	-43.0
296	489.99999999	-194.0
341	489.99999999	-149.0
320	489.99999999	-170.0
243	489.99999999	-247.0
490	489.99999999	0.0

345	489.99999999	-145.0
274	489.99999999	-216.0
296	489.99999999	-194.0
471	489.99999999	-19.0
314	489.99999999	-176.0

Mean Square Error = 31665.483871

Desired Output	Predict	Error
441	321.49977990	119.5
328	321.49931271	6.5
211	321.49904478	-110.5
470	321.49979739	148.5
288	321.49957074	-33.5
454	321.49975118	132.5
298	321.49960668	-23.5
427	321.49977244	105.5
466	321.49977795	144.5
488	321.49981907	166.5
328	321.49962786	6.5
293	321.49958846	-28.5
240	321.49918173	-81.5
319	321.49966584	-2.5
416	321.49976474	94.5
300	321.49961015	-21.5
214	321.49903109	-107.5
164	321.48738254	-157.49
271	321.49952149	-50.5
247	321.49935766	-74.5
259	321.49949723	-62.5
284	321.49955218	-37.5
471	321.49979699	149.5
322	321.49957357	0.5
208	321.49904669	-113.5
431	321.49977642	109.5
211	321.49904200	-110.5
430	321.49977131	108.5
483	321.49981467	161.5
256	321.49949008	-65.5
380	321.49954293	58.5

Mean Square Error = 9652.14839

Desired Output	Predict	Error
253	489.99937499	-237.0
218	489.99936787	-272.0
154	489.99932670	-336.0
470	489.99937989	-20.0
481	489.99938025	-9.0
240	489.99937158	-250.0
469	489.99937971	-21.0
232	489.99936836	-258.0
325	489.99937715	-165.0
241	489.99937142	-249.0
300	489.99937187	-190.0
331	489.99937690	-159.0
210	489.99936842	-280.0
325	489.99937781	-165.0
153	489.99932563	-337.0

377	489.99937867	-113.0
235	489.99936875	-255.0
490	489.99938038	0.0
328	489.99937702	-162.0
444	489.99937968	-46.0
326	489.99937438	-164.0
221	489.99936779	-269.0
153	489.99932485	-337.0
153	489.99932540	-337.0
246	489.99935039	-244.0
404	489.99937911	-86.0
288	489.99937615	-202.0
153	489.99932452	-337.0
252	489.99937481	-238.0
435	489.99937795	-55.0
238	489.99936906	-252.0

Mean Square Error = 49027.83871

Desired Output	Predict	Error
213	153.00003730	60.0
447	153.00006735	294.0
448	153.00007139	295.0
393	153.00006272	240.0
327	153.00004833	174.0
209	153.00003714	56.0
478	153.00006468	325.0
156	153.00002768	3.0
317	153.00005214	164.0
470	153.00006471	317.0
207	153.00002829	54.0
484	153.00007264	331.0
410	153.00006510	257.0
294	153.00005144	141.0
381	153.00006167	228.0
307	153.00005221	154.0
456	153.00007100	303.0
214	153.00003724	61.0
333	153.00004829	180.0
433	153.00005458	280.0
464	153.00007117	311.0
213	153.00003736	60.0
317	153.00005478	164.0
153	153.00002735	-0.0
192	153.00002803	39.0
460	153.00006017	307.0
339	153.00005974	186.0
475	153.00007176	322.0
485	153.00006902	332.0
401	153.00006073	248.0
490	153.00007285	337.0

Mean Square Error = 52519.129032

***** Mean Square Error Average : 29834.3392 *****

9546.551342

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.92

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
320	321.49968427	-1.5
490	321.49988535	168.5
296	321.49964578	-25.5
380	321.49953306	58.5
481	321.49988131	159.5
259	321.49063294	-62.49
475	321.49987931	153.5
214	321.49806020	-107.5
444	321.49985496	122.5
489	321.49988442	167.5
381	321.49980903	59.5
153	321.40657435	-168.41
456	321.49987284	134.5
365	321.49978863	43.5
242	321.49873013	-79.5
396	321.49982537	74.5
344	321.49978056	22.5
390	321.49982085	68.5
232	321.49855256	-89.5
248	321.49928677	-73.5
459	321.49986385	137.5
280	321.49675585	-41.5
236	321.49854975	-85.5
481	321.49987964	159.5
188	321.44160591	-133.44
471	321.49986810	149.5
469	321.49986014	147.5
164	321.42647782	-157.43
448	321.49986508	126.5
345	321.49976890	23.5
236	321.49889819	-85.5

Mean Square Error = 12461.294087

Desired Output	Predict	Error
262	261.73724936	0.26
340	252.56724741	87.43
327	312.32967053	14.67
328	229.17545608	98.82
284	272.71636036	11.28
303	299.65233699	3.35
465	321.42647580	143.57
238	207.93086439	30.07
305	304.29254484	0.71
437	321.27056993	115.73
247	222.32680431	24.67
234	207.92274647	26.08
427	321.08544627	105.91
314	223.20726166	90.79
457	321.38623474	135.61
290	264.51888571	25.48
470	321.44631115	148.55

412	320.73433482	91.27
232	208.28129289	23.72
270	217.84268198	52.16
271	263.56756470	7.43
341	317.97622911	23.02
325	316.64847739	8.35
211	207.45614540	3.54
240	208.80519647	31.19
436	321.26618363	114.73
420	320.75820760	99.24
467	321.43483484	145.57
490	321.48200290	168.52
308	304.45893908	3.54
241	207.86905334	33.13

Mean Square Error = 6499.792281

Desired Output	Predict	Error
153	489.99999956	-337.0
153	489.99999956	-337.0
256	489.99999990	-234.0
209	489.99999985	-281.0
478	489.99999993	-12.0
294	489.99999990	-196.0
490	489.99999993	0.0
209	489.99999985	-281.0
274	489.99999990	-216.0
208	489.99999985	-282.0
231	489.99999987	-259.0
333	489.99999992	-157.0
444	489.99999993	-46.0
213	489.99999985	-277.0
465	489.99999992	-25.0
486	489.99999993	-4.0
253	489.99999990	-237.0
390	489.99999993	-100.0
357	489.99999992	-133.0
462	489.99999993	-28.0
225	489.99999985	-265.0
218	489.99999985	-272.0
268	489.99999990	-222.0
484	489.99999993	-6.0
160	489.99999958	-330.0
303	489.99999991	-187.0
470	489.99999993	-20.0
410	489.99999993	-80.0
417	489.99999993	-73.0
253	489.99999990	-237.0
300	489.99999991	-190.0

Mean Square Error = 42006.774194

Desired Output	Predict	Error
245	321.49999808	-76.5
370	321.49999892	48.5
153	321.42926319	-168.43
246	321.49999828	-75.5
428	321.49999959	106.5
288	321.49999926	-33.5

214		321.49999586		-107.5
290		321.49999928		-31.5
270		321.49997993		-51.5
319		321.49999952		-2.5
294		321.49999936		-27.5
315		321.49999950		-6.5
230		321.49999511		-91.5
298		321.49999938		-23.5
457		321.49999977		135.5
302		321.49999925		-19.5
172		321.48230357		-149.48
490		321.49999982		168.5
398		321.49999940		76.5
430		321.49999974		108.5
339		321.49999960		17.5
350		321.49999843		28.5
246		321.49985290		-75.5
292		321.49999929		-29.5
465		321.49999978		143.5
450		321.49999968		128.5
377		321.49999966		55.5
156		321.47075483		-165.47
447		321.49999976		125.5
412		321.49999950		90.5
250		321.49999892		-71.5

Mean Square Error = 8744.395361

Desired Output		Predict		Error
424		321.49999883		102.5
288		321.49999087		-33.5
337		321.49999839		15.5
422		321.49999886		100.5
209		321.49998066		-112.5
153		321.49020925		-168.49
215		321.49997950		-106.5
247		321.49999384		-74.5
313		321.49999806		-8.5
215		321.49998039		-106.5
438		321.49999854		116.5
297		321.49998653		-24.5
280		321.49999706		-41.5
485		321.49999901		163.5
214		321.49998072		-107.5
464		321.49999900		142.5
451		321.49999898		129.5
427		321.49999887		105.5
390		321.49999729		68.5
329		321.49999841		7.5
483		321.49999900		161.5
433		321.49999847		111.5
490		321.49999903		168.5
215		321.49998011		-106.5
212		321.49998164		-109.5
362		321.49999677		40.5
488		321.49999903		166.5
307		321.49999785		-14.5
306		321.49999796		-15.5
210		321.49998073		-111.5
305		321.49999780		-16.5

Mean Square Error = 10684.399358

Desired Output	Predict	Error
333	489.91839345	-156.92
224	489.84324246	-265.84
325	489.92210119	-164.92
252	489.91478652	-237.91
243	489.90949799	-246.91
360	489.92429251	-129.92
471	489.92590030	-18.93
433	489.92560911	-56.93
294	489.91905513	-195.92
410	489.92488367	-79.92
235	489.90204972	-254.9
276	489.91774761	-213.92
315	489.92124696	-174.92
155	489.80837002	-334.81
293	489.91890420	-196.92
455	489.92591620	-34.93
156	489.80991462	-333.81
469	489.92601668	-20.93
165	489.81325230	-324.81
322	489.92046486	-167.92
310	489.92051289	-179.92
300	489.90863358	-189.91
333	489.91878253	-156.92
470	489.92634515	-19.93
454	489.92448772	-35.92
245	489.90357244	-244.9
416	489.92537335	-73.93
245	489.91072884	-244.91
311	489.92079460	-178.92
328	489.92229029	-161.92
260	489.90683005	-229.91

Mean Square Error = 37921.402368

Desired Output	Predict	Error
467	321.49999773	145.5
294	321.49999326	-27.5
305	321.49999407	-16.5
250	321.49996404	-71.5
288	321.49999236	-33.5
240	321.49995702	-81.5
234	321.49997453	-87.5
382	321.49999705	60.5
326	321.49998809	4.5
470	321.49999790	148.5
153	321.48373997	-168.48
192	321.49351489	-129.49
308	321.49999478	-13.5
255	321.49996815	-66.5
216	321.49994192	-105.5
450	321.49999776	128.5
221	321.49993768	-100.5
376	321.49999696	54.5
489	321.49999815	167.5
323	321.49999561	1.5

231	321.49996681	-90.5
356	321.49999666	34.5
209	321.49994834	-112.5
207	321.49545157	-114.5
490	321.49999818	168.5
211	321.49995151	-110.5
361	321.49999651	39.5
468	321.49999806	146.5
471	321.49999788	149.5
178	321.49126774	-143.49
470	321.49999792	148.5

Mean Square Error = 11314.759697

Desired Output	Predict	Error
153	321.53045403	-168.53
238	321.50024315	-83.5
153	321.53245400	-168.53
308	321.50007285	-13.5
296	321.50007954	-25.5
441	321.50003456	119.5
420	321.50005851	98.5
215	321.50049928	-106.5
475	321.50003486	153.5
291	321.50008908	-30.5
431	321.50003497	109.5
244	321.50023276	-77.5
288	321.50009001	-33.5
468	321.50003241	146.5
230	321.50030673	-91.5
335	321.50005158	13.5
370	321.50004622	48.5
252	321.50013533	-69.5
307	321.50007378	-14.5
239	321.50025501	-82.5
447	321.50005724	125.5
315	321.50007146	-6.5
291	321.50009126	-30.5
208	321.50043810	-113.5
470	321.50003414	148.5
210	321.50048695	-111.5
322	321.50009643	0.5
353	321.50004979	31.5
404	321.50003836	82.5
360	321.50015991	38.5
290	321.50009879	-31.5

Mean Square Error = 8455.611994

Desired Output	Predict	Error
168	321.46636276	-153.47
460	321.50004611	138.5
217	321.50028422	-104.5
154	321.45000834	-167.45
208	321.50025702	-113.5
490	321.50004501	168.5
156	321.45515068	-165.46
405	321.50005317	83.5
349	321.50005878	27.5

393	321.50005266	71.5
240	321.50018226	-81.5
311	321.50006775	-10.5
328	321.50007377	6.5
153	321.43578587	-168.44
314	321.50013363	-7.5
368	321.50005421	46.5
230	321.50020199	-91.5
246	321.50014447	-75.5
374	321.50005538	52.5
265	321.50009869	-56.5
490	321.50004504	168.5
317	321.50007123	-4.5
234	321.50020388	-87.5
309	321.50007035	-12.5
315	321.50008434	-6.5
209	321.50026586	-112.5
249	321.50011685	-72.5
471	321.50004738	149.5
156	321.45708263	-165.46
385	321.50005354	63.5
401	321.50005313	79.5

Mean Square Error = 10801.71291

Desired Output	Predict	Error
232	489.99841925	-258.0
327	489.99845718	-163.0
478	489.99846378	-12.0
397	489.99846132	-93.0
445	489.99845994	-45.0
330	489.99844984	-160.0
233	489.99843006	-257.0
319	489.99845612	-171.0
488	489.99846552	-2.0
213	489.99841846	-277.0
460	489.99846212	-30.0
486	489.99846547	-4.0
209	489.99841773	-281.0
237	489.99834042	-253.0
235	489.99843142	-255.0
390	489.99844954	-100.0
300	489.99845205	-190.0
340	489.99844364	-150.0
328	489.99845249	-162.0
317	489.99845534	-173.0
413	489.99846172	-77.0
251	489.99844282	-239.0
440	489.99846372	-50.0
435	489.99845573	-55.0
468	489.99846073	-22.0
472	489.99846241	-18.0
322	489.99845609	-168.0
247	489.99843901	-243.0
331	489.99845124	-159.0
259	489.99844560	-231.0
351	489.99845967	-139.0

Mean Square Error = 28705.709677

***** Mean Square Error Average : 17759.5852 *****

6499.792281

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.93

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
410	153.00000293	257.0
268	153.00000224	115.0
441	153.00000300	288.0
270	153.00000142	117.0
460	153.00000290	307.0
248	153.00000208	95.0
308	153.00000247	155.0
475	153.00000313	322.0
209	153.00000171	56.0
303	153.00000175	150.0
232	153.00000172	79.0
224	153.00000125	71.0
247	153.00000201	94.0
381	153.00000283	228.0
322	153.00000241	169.0
465	153.00000306	312.0
215	153.00000172	62.0
465	153.00000263	312.0
230	153.00000186	77.0
486	153.00000316	333.0
370	153.00000204	217.0
172	153.00000121	19.0
398	153.00000231	245.0
319	153.00000257	166.0
328	153.00000237	175.0
490	153.00000319	337.0
489	153.00000317	336.0
253	153.00000216	100.0
293	153.00000235	140.0
214	153.00000172	61.0
217	153.00000172	64.0

Mean Square Error = 41228.290323

Desired Output	Predict	Error
280	322.46968002	-42.47
246	321.64853162	-75.65
440	392.15821691	47.84
464	455.44445245	8.56
156	321.50000084	-165.5
238	321.59921410	-83.6
396	347.92803653	48.07
420	353.96218606	66.04
291	324.05645429	-33.06
427	371.54685263	55.45
215	321.51933574	-106.52

424	358.45598600	65.54
431	379.11682123	51.88
457	420.65562126	36.34
288	323.72179684	-35.72
433	364.23812167	68.76
238	321.53343271	-83.53
468	441.66557324	26.33
323	326.94957167	-3.95
326	327.33650726	-1.34
478	466.25600806	11.74
385	345.73685102	39.26
444	396.84004995	47.16
270	321.66337475	-51.66
325	329.53141920	-4.53
335	328.76432048	6.24
307	325.18070598	-18.18
412	349.95860230	62.04
296	323.60543153	-27.61
291	324.38827696	-33.39
297	322.93421727	-25.93

Mean Square Error = 3284.318035

Desired Output	Predict	Error
468	321.50058427	146.5
330	321.50146998	8.5
290	321.50465689	-31.5
481	321.50067861	159.5
218	321.50397921	-103.5
153	321.53786159	-168.54
325	321.50126745	3.5
320	321.50121453	-1.5
231	321.50282957	-90.5
351	321.50084196	29.5
382	321.50075453	60.5
216	321.50395353	-105.5
214	321.50390065	-107.5
333	321.50145322	11.5
237	321.51619061	-84.52
466	321.50073297	144.5
467	321.50062945	145.5
211	321.50390348	-110.5
315	321.50111415	-6.5
153	321.53642841	-168.54
290	321.50149255	-31.5
471	321.50064238	149.5
377	321.50081706	55.5
246	321.51287675	-75.51
470	321.50058009	148.5
460	321.50059116	138.5
233	321.50275466	-88.5
311	321.50116259	-10.5
488	321.50056914	166.5
255	321.50315268	-66.5
154	321.53415241	-167.53

Mean Square Error = 11419.472729

Desired Output	Predict	Error
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469	153.00002935	316.0
333	153.00003804	180.0
210	153.00005777	57.0
265	153.00004631	112.0
486	153.00002537	333.0
333	153.00004209	180.0
380	153.00004568	227.0
331	153.00004150	178.0
451	153.00002753	298.0
290	153.00004377	137.0
305	153.00004160	152.0
153	153.00008497	-0.0
368	153.00003444	215.0
256	153.00004697	103.0
475	153.00002641	322.0
393	153.00003348	240.0
472	153.00002760	319.0
303	153.00004130	150.0
288	153.00005322	135.0
462	153.00002834	309.0
470	153.00002952	317.0
390	153.00003367	237.0
236	153.00005503	83.0
221	153.00005861	68.0
164	153.00008341	11.0
296	153.00004234	143.0
485	153.00002525	332.0
490	153.00002457	337.0
262	153.00004649	109.0
209	153.00005794	56.0
471	153.00002817	318.0

Mean Square Error = 48064.129032

Desired Output	Predict	Error
208	321.08530533	-113.09
156	266.75755593	-110.76
165	271.45136267	-106.45
468	321.48344678	146.52
209	321.03184249	-112.03
420	321.47965776	98.52
251	321.39412274	-70.39
240	321.19694269	-81.2
413	321.47776639	91.52
153	254.63588820	-101.64
246	321.32942155	-75.33
160	268.92669911	-108.93
337	321.46673397	15.53
317	321.45956962	-4.46
470	321.48552014	148.51
470	321.48552992	148.51
271	321.41606666	-50.42
376	321.47631535	54.52
436	321.48303963	114.52
490	321.48827561	168.51
284	321.42722997	-37.43
467	321.48360852	145.52
307	321.45105478	-14.45
306	321.45288619	-15.45
276	321.42115902	-45.42

344	321.47100458	22.53
153	255.55240485	-102.55
483	321.48751889	161.51
244	321.28376866	-77.28
315	321.45932159	-6.46
455	321.48431347	133.52

Mean Square Error = 9849.810529

Desired Output	Predict	Error
155	193.79469560	-38.79
288	321.26772851	-33.27
215	310.87561680	-95.88
489	321.48606416	167.51
488	321.48590304	166.51
341	321.42884535	19.57
207	194.67413120	12.33
252	321.04120858	-69.04
340	321.25795804	18.74
231	317.58804037	-86.59
300	321.34223494	-21.34
374	321.44709791	52.55
404	321.46169394	82.54
211	313.99440285	-102.99
390	321.38601699	68.61
490	321.48648069	168.51
288	321.27564768	-33.28
300	321.35599195	-21.36
490	321.48644974	168.51
390	321.36539319	68.63
235	318.70883341	-83.71
328	321.38799786	6.61
153	193.59697775	-40.6
433	321.47057622	111.53
447	321.46947687	125.53
444	321.47587709	122.52
247	320.57037206	-73.57
422	321.46769836	100.53
302	321.28795943	-19.29
274	321.17216344	-47.17
438	321.45582374	116.54

Mean Square Error = 8153.361565

Desired Output	Predict	Error
405	321.50663960	83.49
245	321.50958559	-76.51
397	321.50535358	75.49
412	321.50668647	90.49
350	321.50910077	28.49
286	321.50738267	-35.51
240	321.51119005	-81.51
405	321.50534750	83.49
478	321.50471460	156.5
242	321.50997250	-79.51
471	321.50480674	149.5
208	321.51148475	-113.51
250	321.50840182	-71.51
234	321.51013003	-87.51

234	321.50988574	-87.51
234	321.51045710	-87.51
339	321.50581992	17.49
437	321.50497291	115.5
481	321.50457465	159.5
360	321.50877131	38.49
457	321.50524771	135.49
416	321.50510966	94.49
208	321.51119152	-113.51
340	321.50941208	18.49
214	321.51161721	-107.51
470	321.50486258	148.5
188	321.51957791	-133.52
450	321.50487389	128.5
454	321.50534288	132.49
465	321.50507679	143.49
490	321.50451751	168.5

Mean Square Error = 11358.099442

Desired Output	Predict	Error
390	489.99883159	-100.0
470	489.99881877	-20.0
365	489.99883929	-125.0
209	489.99914313	-281.0
210	489.99914063	-280.0
308	489.99886039	-182.0
153	489.99998912	-337.0
236	489.99900265	-254.0
327	489.99884914	-163.0
305	489.99886759	-185.0
292	489.99887940	-198.0
360	489.99883658	-130.0
230	489.99905145	-260.0
294	489.99887454	-196.0
215	489.99915518	-275.0
235	489.99912666	-255.0
329	489.99884689	-161.0
308	489.99888361	-182.0
294	489.99888569	-196.0
168	489.99998209	-322.0
178	489.99997936	-312.0
435	489.99884177	-55.0
294	489.99887291	-196.0
153	489.99998779	-337.0
225	489.99917197	-265.0
417	489.99883037	-73.0
310	489.99886445	-180.0
303	489.99886802	-187.0
213	489.99913430	-277.0
345	489.99884404	-145.0
245	489.99909008	-245.0

Mean Square Error = 48785.806452

Desired Output	Predict	Error
357	321.50048594	35.5
209	321.50296693	-112.5
430	321.50036411	108.5

313	321.50064912	-8.5
450	321.50045944	128.5
300	321.50191827	-21.5
253	321.50110610	-68.5
153	321.52780579	-168.53
315	321.50090618	-6.5
314	321.50172801	-7.5
309	321.50068157	-12.5
314	321.50184792	-7.5
490	321.50031031	168.5
362	321.50108729	40.5
448	321.50033306	126.5
156	321.52472935	-165.52
322	321.50058951	0.5
192	321.52056233	-129.52
230	321.50298934	-91.5
319	321.50058558	-2.5
428	321.50057223	106.5
232	321.50213378	-89.5
447	321.50034558	125.5
209	321.50298524	-112.5
294	321.50077381	-27.5
484	321.50030592	162.5
327	321.50088753	5.5
490	321.50030336	168.5
328	321.50056153	6.5
445	321.50048344	123.5
252	321.50118215	-69.5

Mean Square Error = 9619.214894

Desired Output	Predict	Error
427	489.99999988	-63.0
232	489.99999990	-258.0
250	489.99999989	-240.0
410	489.99999988	-80.0
280	489.99999990	-210.0
305	489.99999988	-185.0
247	489.99999989	-243.0
370	489.99999988	-120.0
298	489.99999988	-192.0
240	489.99999989	-250.0
456	489.99999987	-34.0
243	489.99999989	-247.0
249	489.99999989	-241.0
469	489.99999987	-21.0
317	489.99999988	-173.0
361	489.99999988	-129.0
259	489.99999991	-231.0
315	489.99999988	-175.0
156	489.99999994	-334.0
239	489.99999989	-251.0
471	489.99999987	-19.0
213	489.99999990	-277.0
349	489.99999988	-141.0
322	489.99999988	-168.0
245	489.99999989	-245.0
353	489.99999988	-137.0
241	489.99999990	-249.0
259	489.99999989	-231.0

212		489.99999990		-278.0
356		489.99999988		-134.0
401		489.99999988		-89.0

Mean Square Error = 39805.903226

***** Mean Square Error Average : 23156.8406 *****
3284.318035

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.9400000000000001

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
280		321.50043090		-41.5
405		321.50032835		83.5
214		321.50218399		-107.5
327		321.50023727		5.5
470		321.50015167		148.5
270		321.50572753		-51.51
208		321.50219612		-113.5
472		321.50022666		150.5
333		321.50044534		11.5
310		321.50031950		-11.5
462		321.50015468		140.5
308		321.50046032		-13.5
460		321.50018129		138.5
247		321.50083821		-74.5
240		321.50185339		-81.5
428		321.50025120		106.5
305		321.50033774		-16.5
368		321.50017827		46.5
209		321.50222832		-112.5
225		321.50213687		-96.5
155		321.53585189		-166.54
385		321.50018208		63.5
410		321.50016734		88.5
288		321.50123002		-33.5
209		321.50222223		-112.5
390		321.50016833		68.5
322		321.50026246		0.5
485		321.50016805		163.5
212		321.50216580		-109.5
165		321.53325948		-156.53
246		321.50089633		-75.5

Mean Square Error = 9510.370729

Desired Output		Predict		Error
459		153.00865370		305.99
211		153.00866650		57.99
430		153.00865398		276.99
294		153.00865647		140.99
328		153.00865607		174.99

305		153.00865608		151.99
231		153.00866294		77.99
340		153.00866074		186.99
154		153.00875984		0.99
211		153.00866659		57.99
317		153.00865587		163.99
298		153.00865626		144.99
311		153.00865558		157.99
486		153.00865332		332.99
247		153.00866013		93.99
486		153.00865332		332.99
218		153.00866730		64.99
490		153.00865326		336.99
153		153.00876182		-0.01
319		153.00865535		165.99
284		153.00865701		130.99
465		153.00865366		311.99
153		153.00876744		-0.01
290		153.00865702		136.99
214		153.00866659		60.99
468		153.00865385		314.99
448		153.00865368		294.99
232		153.00866659		78.99
268		153.00865761		114.99
207		153.00872996		53.99
422		153.00865401		268.99

Mean Square Error = 37370.776874

Desired Output		Predict		Error
294		153.00003241		141.0
252		153.00002663		99.0
178		153.00001444		25.0
427		153.00005123		274.0
490		153.00005783		337.0
420		153.00003355		267.0
360		153.00004446		207.0
317		153.00003560		164.0
481		153.00004789		328.0
260		153.00002164		107.0
305		153.00003254		152.0
156		153.00001430		3.0
377		153.00004410		224.0
221		153.00002063		68.0
424		153.00004961		271.0
270		153.00002219		117.0
153		153.00001408		-0.0
483		153.00005062		330.0
251		153.00002635		98.0
420		153.00004919		267.0
303		153.00001993		150.0
345		153.00003967		192.0
153		153.00001420		-0.0
416		153.00004993		263.0
153		153.00001418		-0.0
307		153.00003297		154.0
325		153.00003714		172.0
370		153.00002468		217.0
307		153.00003344		154.0
319		153.00003620		166.0

445		153.00003842		292.0
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Mean Square Error = 38687.516129

Desired Output	Predict	Error
302	321.50702740	-19.51
294	321.50703177	-27.51
236	321.50755965	-85.51
471	321.50670456	149.49
350	321.50741236	28.49
466	321.50671745	144.49
309	321.50689364	-12.51
471	321.50670360	149.49
478	321.50669799	156.49
252	321.50718223	-69.51
230	321.50774415	-91.51
215	321.50809563	-106.51
271	321.50709765	-50.51
447	321.50677563	125.49
243	321.50759543	-78.51
265	321.50712020	-56.51
217	321.50814290	-104.51
245	321.50791081	-76.51
326	321.50727959	4.49
469	321.50671026	147.49
468	321.50669586	146.49
349	321.50679570	27.49
210	321.50805829	-111.51
308	321.50688421	-13.51
230	321.50812789	-91.51
245	321.50748518	-76.51
238	321.50760973	-83.51
410	321.50672958	88.49
300	321.50761106	-21.51
239	321.50761962	-82.51
232	321.50772705	-89.51

Mean Square Error = 8689.72139

Desired Output	Predict	Error
444	153.00012238	291.0
484	153.00012722	331.0
390	153.00044533	237.0
437	153.00012609	284.0
417	153.00012833	264.0
291	153.00026228	138.0
322	153.00032152	169.0
353	153.00015557	200.0
294	153.00025232	141.0
330	153.00032672	177.0
311	153.00020667	158.0
467	153.00012830	314.0
464	153.00012473	311.0
240	153.00054778	87.0
341	153.00016337	188.0
314	153.00061627	161.0
331	153.00030089	178.0
156	153.00480849	3.0
290	153.00027184	137.0

224	153.00397400	71.0
292	153.00023063	139.0
457	153.00012655	304.0
192	153.00432282	39.0
246	153.00329066	93.0
209	153.00097488	56.0
328	153.00028267	175.0
435	153.00041501	282.0
333	153.00016955	180.0
447	153.00012577	294.0
256	153.00033434	103.0
153	153.00543029	-0.01

Mean Square Error = 40284.935487

Desired Output	Predict	Error
339	321.50053695	17.5
153	321.54086630	-168.54
431	321.50034796	109.5
441	321.50034175	119.5
234	321.50310969	-87.5
488	321.50027581	166.5
412	321.50071459	90.5
398	321.50091101	76.5
475	321.50031970	153.5
329	321.50058463	7.5
209	321.50496040	-112.5
241	321.50306058	-80.5
290	321.50565518	-31.51
465	321.50046243	143.5
469	321.50030966	147.5
288	321.50104833	-33.5
380	321.50131402	58.5
297	321.50407054	-24.5
306	321.50079753	-15.5
208	321.50462982	-113.5
236	321.50348246	-85.5
210	321.50491810	-111.5
470	321.50031119	148.5
450	321.50032880	128.5
433	321.50055310	111.5
328	321.50062553	6.5
468	321.50031015	146.5
315	321.50081511	-6.5
489	321.50027382	167.5
234	321.50286525	-87.5
360	321.50188940	38.5

Mean Square Error = 10911.221345

Desired Output	Predict	Error
401	321.49193425	79.51
470	321.49287097	148.51
323	321.49082056	1.51
156	153.01259088	2.99
249	321.48629425	-72.49
153	153.01199265	-0.01
357	321.49141549	35.51
397	321.49206143	75.51

247	321.48379311	-74.48
234	321.47649124	-87.48
156	153.01254631	2.99
490	321.49340844	168.51
340	321.48810001	18.51
488	321.49338246	166.51
450	321.49202303	128.51
246	321.48295161	-75.48
335	321.49116495	13.51
303	321.48992841	-18.49
433	321.49250323	111.51
160	153.01280265	6.99
396	321.49206401	74.51
390	321.49194189	68.51
376	321.49183389	54.51
328	321.48204921	6.52
286	321.48873087	-35.49
438	321.49165404	116.51
250	321.48689099	-71.49
215	321.46501323	-106.47
460	321.49313199	138.51
172	153.01450291	18.99
314	321.48537556	-7.49

Mean Square Error = 6762.584681

Desired Output	Predict	Error
427	321.49774831	105.5
253	321.49792722	-68.5
255	321.49778310	-66.5
320	321.49787762	-1.5
393	321.49777640	71.5
381	321.49778910	59.5
361	321.49781262	39.5
370	321.49780409	48.5
245	321.49782640	-76.5
296	321.49789586	-25.5
300	321.49789248	-21.5
315	321.49787507	-6.5
351	321.49780848	29.5
215	321.49756223	-106.5
308	321.49789344	-13.5
490	321.49767632	168.5
293	321.49791171	-28.5
471	321.49770782	149.5
296	321.49790763	-25.5
322	321.49787969	0.5
303	321.49790110	-18.5
382	321.49777622	60.5
390	321.49788394	68.5
233	321.49773181	-88.5
337	321.49784018	15.5
490	321.49767489	168.5
315	321.49786781	-6.5
327	321.49793022	5.5
240	321.49773927	-81.5
413	321.49776942	91.5
259	321.49791809	-62.5

Mean Square Error = 5437.798387

Desired Output	Predict	Error
248	321.50000000	-73.5
365	321.50000000	43.5
213	321.49999999	-108.5
490	321.50000000	168.5
404	321.50000000	82.5
374	321.50000000	52.5
451	321.50000000	129.5
412	321.50000000	90.5
231	321.49999999	-90.5
288	321.50000000	-33.5
471	321.50000000	149.5
259	321.49999966	-62.5
490	321.50000000	168.5
216	321.49999999	-105.5
455	321.50000000	133.5
168	321.49979680	-153.5
405	321.50000000	83.5
470	321.50000000	148.5
465	321.50000000	143.5
262	321.50000000	-59.5
436	321.50000000	114.5
325	321.50000000	3.5
475	321.50000000	153.5
481	321.50000000	159.5
238	321.49999999	-83.5
300	321.50000000	-21.5
457	321.50000000	135.5
288	321.50000000	-33.5
291	321.50000000	-30.5
313	321.50000000	-8.5
456	321.50000000	134.5

Mean Square Error = 11604.830645

Desired Output	Predict	Error
237	489.98356008	-252.98
253	489.99043165	-236.99
470	489.99055452	-19.99
209	489.98999040	-280.99
209	489.98998916	-280.99
440	489.99055574	-49.99
214	489.98999942	-275.99
489	489.99056192	-0.99
362	489.99045852	-127.99
478	489.99056101	-11.99
242	489.99025501	-247.99
230	489.99019336	-259.99
188	489.96954307	-301.97
276	489.99046203	-213.99
250	489.99013833	-239.99
235	489.99025087	-254.99
356	489.99054097	-133.99
333	489.99049150	-156.99
344	489.99053728	-145.99
215	489.98997395	-274.99
444	489.99055523	-45.99
315	489.99047522	-174.99

153	489.95239830	-336.95
490	489.99056195	0.01
235	489.99002977	-254.99
232	489.99019008	-257.99
213	489.99001424	-276.99
164	489.96308892	-325.96
208	489.99006087	-281.99
280	489.98951529	-209.99
274	489.99045827	-215.99

Mean Square Error = 49450.880906

***** Mean Square Error Average : 21871.0637 *****
5437.798387

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.9500000000000001

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
252	321.49458940	-69.49
313	321.49673165	-8.5
404	321.49782158	82.5
470	321.49817513	148.5
481	321.49830769	159.5
211	321.48819406	-110.49
490	321.49833549	168.5
455	321.49810866	133.5
265	321.49503387	-56.5
297	321.49033252	-24.49
288	321.49581423	-33.5
305	321.49642011	-16.5
232	321.49034722	-89.49
412	321.49689513	90.5
320	321.49655836	-1.5
239	321.49126494	-82.49
405	321.49666479	83.5
305	321.49630803	-16.5
230	321.49020150	-91.49
308	321.49655278	-13.5
243	321.49147203	-78.49
454	321.49776350	132.5
290	321.49571296	-31.5
291	321.49592613	-30.5
322	321.49654764	0.5
368	321.49760983	46.5
315	321.49652252	-6.5
234	321.49085601	-87.49
246	321.49283251	-75.49
225	321.48672828	-96.49
232	321.49018998	-89.49

Mean Square Error = 7100.8981

----- Desired Output ----- Predict ----- Error -----

460	321.50008630	138.5
475	321.50008652	153.5
420	321.50009380	98.5
238	321.50035313	-83.5
303	321.50024585	-18.5
489	321.50008468	167.5
440	321.50008952	118.5
213	321.50037062	-108.5
214	321.50038015	-107.5
416	321.50009269	94.5
339	321.50010465	17.5
259	321.50016077	-62.5
337	321.50010787	15.5
490	321.50008484	168.5
328	321.50012507	6.5
405	321.50009718	83.5
447	321.50010102	125.5
240	321.50026584	-81.5
249	321.50017951	-72.5
327	321.50010958	5.5
488	321.50008505	166.5
309	321.50012049	-12.5
374	321.50010011	52.5
300	321.50012663	-21.5
322	321.50011237	0.5
448	321.50008785	126.5
422	321.50009197	100.5
315	321.50011516	-6.5
245	321.50022645	-76.5
296	321.50012916	-25.5
410	321.50009689	88.5

Mean Square Error = 8813.991935

Desired Output	Predict	Error
247	489.99613793	-243.0
284	489.99613261	-206.0
246	489.99613855	-244.0
215	489.99614654	-275.0
153	489.99610632	-337.0
237	489.99615371	-253.0
153	489.99610922	-337.0
207	489.99614148	-283.0
221	489.99614663	-269.0
481	489.99612773	-9.0
306	489.99613068	-184.0
294	489.99613197	-196.0
218	489.99614663	-272.0
317	489.99613098	-173.0
307	489.99613120	-183.0
156	489.99611697	-334.0
253	489.99613502	-237.0
208	489.99614596	-282.0
397	489.99612802	-93.0
178	489.99612767	-312.0
214	489.99614644	-276.0
294	489.99613161	-196.0
294	489.99613209	-196.0
268	489.99613371	-222.0

245	489.99613905	-245.0
242	489.99613999	-248.0
401	489.99612798	-89.0
377	489.99612831	-113.0
382	489.99612793	-108.0
213	489.99614635	-277.0
370	489.99613581	-120.0

Mean Square Error = 54533.677419

Desired Output	Predict	Error
444	321.49999997	122.5
211	321.49999992	-110.5
475	321.49999997	153.5
470	321.49999997	148.5
365	321.49999997	43.5
230	321.49999994	-91.5
308	321.49999997	-13.5
349	321.49999997	27.5
319	321.49999997	-2.5
192	321.49987550	-129.5
270	321.49999970	-51.5
327	321.49999997	5.5
231	321.49999994	-90.5
441	321.49999997	119.5
469	321.49999997	147.5
256	321.49999996	-65.5
153	321.49909459	-168.5
447	321.49999997	125.5
433	321.49999997	111.5
396	321.49999997	74.5
216	321.49999992	-105.5
274	321.49999997	-47.5
156	321.49942659	-165.5
380	321.49999997	58.5
303	321.49999997	-18.5
319	321.49999997	-2.5
291	321.49999997	-30.5
232	321.49999992	-89.5
307	321.49999997	-14.5
390	321.49999997	68.5
262	321.49999997	-59.5

Mean Square Error = 8905.346774

Desired Output	Predict	Error
345	321.49997613	23.5
322	321.49996431	0.5
445	321.49997919	123.5
292	321.49996406	-29.5
467	321.49998360	145.5
172	321.49578248	-149.5
428	321.49997635	106.5
433	321.49998205	111.5
276	321.49995854	-45.5
340	321.49995576	18.5
253	321.49995221	-68.5
233	321.49989876	-88.5
271	321.49995671	-50.5

250	321.49994893	-71.5
450	321.49997994	128.5
288	321.49991044	-33.5
353	321.49997684	31.5
427	321.49998193	105.5
483	321.49998470	161.5
331	321.49996835	9.5
247	321.49993729	-74.5
326	321.49994831	4.5
325	321.49997401	3.5
424	321.49998122	102.5
417	321.49998045	95.5
341	321.49997571	19.5
235	321.49985828	-86.5
214	321.49985125	-107.5
156	321.49540804	-165.5
315	321.49997192	-6.5
300	321.49991378	-21.5

Mean Square Error = 7581.346774

Desired Output	Predict	Error
252	489.99616286	-238.0
485	489.99616328	-5.0
457	489.99616327	-33.0
250	489.99616257	-240.0
270	489.99616264	-220.0
209	489.99616251	-281.0
294	489.99616295	-196.0
153	489.99619603	-337.0
456	489.99616328	-34.0
290	489.99616297	-200.0
290	489.99616237	-200.0
420	489.99616309	-70.0
208	489.99616251	-282.0
362	489.99616287	-128.0
314	489.99616269	-176.0
344	489.99616317	-146.0
153	489.99620691	-337.0
209	489.99616251	-281.0
310	489.99616304	-180.0
300	489.99616301	-190.0
470	489.99616321	-20.0
288	489.99616296	-202.0
471	489.99616327	-19.0
361	489.99616317	-129.0
465	489.99616327	-25.0
230	489.99616249	-260.0
370	489.99616317	-120.0
390	489.99616294	-100.0
350	489.99616274	-140.0
430	489.99616324	-60.0
328	489.99616301	-162.0

Mean Square Error = 35169.83871

Desired Output	Predict	Error
462	321.50159559	140.5
153	321.50005097	-168.5

246	321.50005603	-75.5
385	321.50054424	63.5
153	321.50005146	-168.5
210	321.50009046	-111.5
168	321.50004912	-153.5
490	321.50524878	168.49
240	321.50009322	-81.5
444	321.50124157	122.5
251	321.50016635	-70.5
302	321.50022818	-19.5
328	321.50012137	6.5
231	321.50008889	-90.5
317	321.50031014	-4.5
360	321.50016324	38.5
490	321.50501742	168.49
478	321.50608692	156.49
470	321.50288676	148.5
390	321.50057084	68.5
328	321.50034871	6.5
472	321.50562676	150.49
208	321.50009373	-113.5
435	321.50080702	113.5
323	321.50031068	1.5
490	321.50537971	168.49
311	321.50029255	-10.5
164	321.50004961	-157.5
303	321.50026785	-18.5
247	321.50012588	-74.5
478	321.50333930	156.5

Mean Square Error = 12875.59679

Desired Output	Predict	Error
457	321.50246133	135.5
329	321.50238230	7.5
188	321.51338367	-133.51
340	321.50272065	18.5
490	321.50242712	168.5
288	321.50241273	-33.5
427	321.50245749	105.5
215	321.50343691	-106.5
212	321.50338091	-109.5
325	321.50240840	3.5
245	321.50318410	-76.5
351	321.50240642	29.5
234	321.50297864	-87.5
241	321.50286460	-80.5
333	321.50241378	11.5
466	321.50247244	144.5
470	321.50246556	148.5
490	321.50242503	168.5
280	321.50241767	-41.5
465	321.50246939	143.5
333	321.50238488	11.5
314	321.50282559	-7.5
490	321.50242368	168.5
460	321.50246724	138.5
437	321.50246525	115.5
311	321.50237135	-10.5
484	321.50243276	162.5

471	321.50246844	149.5
464	321.50245311	142.5
260	321.50298247	-61.5
413	321.50244489	91.5

Mean Square Error = 11536.594197

Desired Output	Predict	Error
486	153.00167062	333.0
209	153.00203837	56.0
248	153.00195565	95.0
255	153.00206488	102.0
234	153.00202960	81.0
376	153.00191172	223.0
471	153.00181447	318.0
305	153.00197615	152.0
153	153.00217279	-0.0
357	153.00193401	204.0
330	153.00197875	177.0
240	153.00205034	87.0
488	153.00166268	335.0
390	153.00202067	237.0
381	153.00191138	228.0
315	153.00199242	162.0
431	153.00183420	278.0
280	153.00215550	127.0
224	153.00219834	71.0
333	153.00197396	180.0
286	153.00200045	133.0
393	153.00190013	240.0
160	153.00217145	7.0
410	153.00187695	257.0
459	153.00179519	306.0
489	153.00169299	336.0
238	153.00208135	85.0
486	153.00167349	333.0
451	153.00174228	298.0
308	153.00197644	155.0
356	153.00192983	203.0

Mean Square Error = 44904.290323

Desired Output	Predict	Error
470	321.50000055	148.5
412	321.50000075	90.5
217	321.50000447	-104.5
259	321.50002090	-62.5
468	321.50000054	146.5
450	321.50000056	128.5
215	321.50000430	-106.5
335	321.50000068	13.5
236	321.50000211	-85.5
209	321.50000394	-112.5
165	321.49101059	-156.49
210	321.50000385	-111.5
436	321.50000057	114.5
209	321.50000394	-112.5
467	321.50000056	145.5
468	321.50000056	146.5

209	321.50000394	-112.5
468	321.50000055	146.5
155	321.48536816	-166.49
235	321.50000235	-86.5
244	321.50000211	-77.5
398	321.50000084	76.5
154	321.48355435	-167.48
156	321.48804668	-165.49
465	321.50000058	143.5
360	321.50000063	38.5
293	321.50000090	-28.5
153	321.47450779	-168.47
296	321.50000088	-25.5
236	321.50000275	-85.5
469	321.50000056	147.5

Mean Square Error = 14111.457148

***** Mean Square Error Average : 20553.3038 *****
7100.8981

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.96

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
420	320.27393746	99.73
311	320.16200990	-9.16
427	320.28059004	106.72
356	320.25131830	35.75
490	320.29394312	169.71
236	319.25872396	-83.26
165	160.84198166	4.16
154	159.97618871	-5.98
305	320.12887192	-15.13
465	320.28828965	144.71
210	317.77573757	-107.78
325	320.20354108	4.8
296	320.10909912	-24.11
465	320.27797839	144.72
303	320.12162528	-17.12
437	320.28231595	116.72
241	319.05537305	-78.06
215	317.63599854	-102.64
460	320.29129044	139.71
153	159.50410198	-6.5
390	320.26796373	69.73
485	320.29251767	164.71
390	320.06452267	69.94
233	318.96145860	-85.96
490	320.29368716	169.71
320	320.14862885	-0.15
265	319.93637868	-54.94
280	314.57898780	-34.58
156	160.36606668	-4.37

274		319.97905221		-45.98
422		320.27885918		101.72

Mean Square Error = 8151.387794

Desired Output		Predict		Error
310		321.49999744		-11.5
270		321.49994634		-51.5
322		321.49999704		0.5
293		321.49999717		-28.5
218		321.49998533		-103.5
433		321.49999786		111.5
259		321.49989124		-62.5
471		321.49999819		149.5
292		321.49999714		-29.5
153		321.49689394		-168.5
455		321.49999817		133.5
427		321.49999811		105.5
317		321.49999763		-4.5
471		321.49999818		149.5
325		321.49999741		3.5
215		321.49998633		-106.5
307		321.49999741		-14.5
360		321.49999543		38.5
360		321.49999798		38.5
235		321.49999284		-86.5
259		321.49999641		-62.5
230		321.49999162		-91.5
302		321.49999694		-19.5
207		321.49901668		-114.5
238		321.49999333		-83.5
349		321.49999787		27.5
405		321.49999803		83.5
230		321.49999170		-91.5
481		321.49999822		159.5
268		321.49999657		-53.5
315		321.49999760		-6.5

Mean Square Error = 7509.08871

Desired Output		Predict		Error
214		321.49930759		-107.5
374		321.49981535		52.5
155		321.24786998		-166.25
393		321.49982116		71.5
438		321.49981432		116.5
240		321.49949095		-81.5
214		321.49931615		-107.5
288		321.49955946		-33.5
234		321.49949360		-87.5
224		321.46264885		-97.46
381		321.49981823		59.5
234		321.49956829		-87.5
276		321.49974198		-45.5
288		321.49975571		-33.5
232		321.49950900		-89.5
188		321.37234534		-133.37
490		321.49983979		168.5
290		321.49975839		-31.5

240	321.49939135	-81.5
309	321.49978501	-12.5
396	321.49982309	74.5
412	321.49979622	90.5
231	321.49949574	-90.5
215	321.49929861	-106.5
298	321.49977379	-23.5
447	321.49981581	125.5
475	321.49983808	153.5
288	321.49975828	-33.5
243	321.49956986	-78.5
256	321.49972036	-65.5
431	321.49982961	109.5

Mean Square Error = 8715.615194

Desired Output	Predict	Error
213	489.99994629	-277.0
440	489.99995942	-50.0
211	489.99994621	-279.0
305	489.99995397	-185.0
435	489.99995092	-55.0
462	489.99995903	-28.0
253	489.99995170	-237.0
327	489.99995213	-163.0
303	489.99994565	-187.0
208	489.99994631	-282.0
288	489.99995271	-202.0
217	489.99994653	-273.0
470	489.99995242	-20.0
308	489.99995429	-182.0
470	489.99995864	-20.0
208	489.99994648	-282.0
380	489.99995048	-110.0
450	489.99995632	-40.0
472	489.99995322	-18.0
326	489.99994811	-164.0
329	489.99995674	-161.0
470	489.99995799	-20.0
448	489.99995970	-42.0
469	489.99995882	-21.0
468	489.99995926	-22.0
416	489.99995905	-74.0
153	489.99993660	-337.0
247	489.99994981	-243.0
417	489.99995889	-73.0
178	489.99993774	-312.0
490	489.99995832	0.0

Mean Square Error = 31348.806452

Desired Output	Predict	Error
245	489.99893943	-245.0
401	489.99893940	-89.0
215	489.99893942	-275.0
357	489.99893941	-133.0
255	489.99893943	-235.0
297	489.99893943	-193.0
232	489.99893943	-258.0

410	489.99893940	-80.0
328	489.99893943	-162.0
323	489.99893942	-167.0
286	489.99893943	-204.0
300	489.99893942	-190.0
413	489.99893940	-77.0
156	489.99897742	-334.0
404	489.99893940	-86.0
328	489.99893943	-162.0
245	489.99893943	-245.0
350	489.99893943	-140.0
240	489.99893943	-250.0
351	489.99893941	-139.0
209	489.99893942	-281.0
361	489.99893941	-129.0
382	489.99893940	-108.0
300	489.99893943	-190.0
339	489.99893941	-151.0
290	489.99893943	-200.0
468	489.99893940	-22.0
246	489.99893943	-244.0
430	489.99893940	-60.0
365	489.99893941	-125.0
306	489.99893942	-184.0

Mean Square Error = 35173.741935

Desired Output	Predict	Error
308	490.00000000	-182.0
280	490.00000000	-210.0
234	490.00000000	-256.0
489	490.00000000	-1.0
490	490.00000000	0.0
209	490.00000000	-281.0
238	490.00000000	-252.0
340	490.00000000	-150.0
489	490.00000000	-1.0
322	490.00000000	-168.0
488	490.00000000	-2.0
490	490.00000000	0.0
390	490.00000000	-100.0
327	490.00000000	-163.0
444	490.00000000	-46.0
294	490.00000000	-196.0
344	490.00000000	-146.0
341	490.00000000	-149.0
153	490.00000000	-337.0
247	490.00000000	-243.0
236	490.00000000	-254.0
470	490.00000000	-20.0
398	490.00000000	-92.0
390	490.00000000	-100.0
294	490.00000000	-196.0
239	490.00000000	-251.0
214	490.00000000	-276.0
444	490.00000000	-46.0
235	490.00000000	-255.0
457	490.00000000	-33.0
216	490.00000000	-274.0

Mean Square Error = 33337.741935

Desired Output	Predict	Error
232	153.00000280	79.0
470	153.00000285	317.0
486	153.00000280	333.0
478	153.00000240	325.0
260	153.00000270	107.0
486	153.00000267	333.0
483	153.00000256	330.0
368	153.00000309	215.0
250	153.00000271	97.0
459	153.00000293	306.0
362	153.00000241	209.0
245	153.00000286	92.0
252	153.00000278	99.0
209	153.00000279	56.0
451	153.00000300	298.0
250	153.00000275	97.0
330	153.00000265	177.0
412	153.00000228	259.0
315	153.00000285	162.0
212	153.00000278	59.0
247	153.00000282	94.0
156	153.00000347	3.0
153	153.00000350	-0.0
465	153.00000213	312.0
313	153.00000289	160.0
333	153.00000263	180.0
291	153.00000282	138.0
464	153.00000289	311.0
153	153.00000349	-0.0
230	153.00000283	77.0
471	153.00000281	318.0

Mean Square Error = 44586.741935

Desired Output	Predict	Error
290	323.26215255	-33.26
172	321.50479203	-149.5
209	321.49872595	-112.5
345	329.99481852	15.01
168	321.50501573	-153.51
208	321.49935522	-113.5
488	469.30343803	18.7
424	351.84172017	72.16
469	438.62320006	30.38
331	334.29452641	-3.29
305	323.49193274	-18.49
467	434.25365018	32.75
294	324.21302058	-30.21
481	465.11320518	15.89
231	321.49872037	-90.5
308	323.98096869	-15.98
333	328.23813231	4.76
294	322.40361712	-28.4
251	321.99136909	-70.99
353	331.19544188	21.8
340	321.65545471	18.34

433	372.17625528	60.82
315	324.60723004	-9.61
468	472.50758244	-4.51
490	472.02434012	17.98
300	321.53542218	-21.54
445	375.59394044	69.41
441	386.09148896	54.91
314	321.54374158	-7.54
457	402.60903838	54.39
478	463.21753185	14.78

Mean Square Error = 3633.77901

Desired Output	Predict	Error
317	321.50000088	-4.5
410	321.50000069	88.5
237	321.50019238	-84.5
319	321.50000082	-2.5
475	321.50000062	153.5
307	321.50000090	-14.5
370	321.50000072	48.5
436	321.50000064	114.5
311	321.50000085	-10.5
456	321.50000062	134.5
484	321.50000061	162.5
319	321.50000082	-2.5
209	321.50000378	-112.5
262	321.50000119	-59.5
328	321.50000090	6.5
153	321.50275593	-168.5
405	321.50000084	83.5
270	321.50000223	-51.5
284	321.50000106	-37.5
376	321.50000069	54.5
428	321.50000075	106.5
213	321.50000365	-108.5
156	321.50219722	-165.5
370	321.50000119	48.5
471	321.50000063	149.5
225	321.50000429	-96.5
460	321.50000066	138.5
296	321.50000094	-25.5
160	321.50197343	-161.5
470	321.50000061	148.5
315	321.50000101	-6.5

Mean Square Error = 10000.25

Desired Output	Predict	Error
333	321.50036406	11.5
246	321.50910255	-75.51
209	321.50163604	-112.5
248	321.50060822	-73.5
253	321.50049036	-68.5
490	321.50014663	168.5
335	321.50021145	13.5
377	321.50018692	55.5
322	321.50029271	0.5
303	321.50028832	-18.5

210	321.50161950	-111.5
271	321.50040165	-50.5
466	321.50016883	144.5
246	321.50069417	-75.5
252	321.50050531	-69.5
454	321.50018701	132.5
153	321.53542182	-168.54
337	321.50022402	15.5
467	321.50015247	145.5
397	321.50017459	75.5
291	321.50035647	-30.5
211	321.50159055	-110.5
420	321.50024691	98.5
328	321.50023446	6.5
249	321.50058117	-72.5
385	321.50018167	63.5
192	321.52201730	-129.52
450	321.50015381	128.5
242	321.50081228	-79.5
447	321.50015437	125.5
244	321.50077040	-77.5

Mean Square Error = 8825.352326

***** Mean Square Error Average : 19128.2505 *****
3633.77901

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.97

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
427	321.49999747	105.5
156	321.48566128	-165.49
246	321.49999130	-75.5
290	321.49999569	-31.5
317	321.49999641	-4.5
250	321.49998420	-71.5
451	321.49999757	129.5
308	321.49999639	-13.5
420	321.49999740	98.5
457	321.49999737	135.5
329	321.49999695	7.5
311	321.49999651	-10.5
490	321.49999763	168.5
327	321.49999576	5.5
490	321.49999763	168.5
327	321.49999689	5.5
333	321.49999593	11.5
325	321.49999682	3.5
213	321.49997880	-108.5
315	321.49999668	-6.5
410	321.49999732	88.5
323	321.49999682	1.5
444	321.49999751	122.5

315	321.49999661	-6.5
413	321.49999735	91.5
209	321.49997771	-112.5
300	321.49999616	-21.5
209	321.49997760	-112.5
361	321.49999713	39.5
450	321.49999752	128.5
164	321.48660272	-157.49

Mean Square Error = 8523.654523

Desired Output	Predict	Error
340	321.49996917	18.5
209	321.49991310	-112.5
291	321.49997750	-30.5
465	321.49998791	143.5
217	321.49991069	-104.5
231	321.49994408	-90.5
270	321.49977215	-51.5
160	321.49545715	-161.5
404	321.49998683	82.5
490	321.49998856	168.5
333	321.49998360	11.5
362	321.49997326	40.5
376	321.49998623	54.5
305	321.49997974	-16.5
298	321.49997896	-23.5
306	321.49998089	-15.5
247	321.49996048	-74.5
360	321.49998583	38.5
315	321.49998066	-6.5
460	321.49998673	138.5
469	321.49998750	147.5
471	321.49998772	149.5
225	321.49991081	-96.5
398	321.49997913	76.5
230	321.49991354	-91.5
215	321.49991212	-106.5
382	321.49998639	60.5
456	321.49998816	134.5
460	321.49998824	138.5
431	321.49998747	109.5
178	321.49656506	-143.5

Mean Square Error = 9746.120968

Desired Output	Predict	Error
240	321.50128529	-81.5
486	321.50043333	164.5
153	321.53769035	-168.54
339	321.50041970	17.5
310	321.50056633	-11.5
209	321.50221314	-112.5
155	321.53318783	-166.53
454	321.50043096	132.5
288	321.50063516	-33.5
240	321.50154191	-81.5
438	321.50047100	116.5
259	321.50746875	-62.51

168	321.52972324	-153.53
489	321.50040818	167.5
314	321.50133573	-7.5
445	321.50045478	123.5
276	321.50069487	-45.5
481	321.50050396	159.5
357	321.50042643	35.5
253	321.50083015	-68.5
422	321.50035576	100.5
468	321.50066200	146.5
284	321.50066677	-37.5
156	321.53219487	-165.53
340	321.50118685	18.5
313	321.50053955	-8.5
297	321.50209598	-24.5
221	321.50222262	-100.5
341	321.50045501	19.5
320	321.50058257	-1.5
328	321.50067128	6.5

Mean Square Error = 10259.471432

Desired Output	Predict	Error
330	321.50000001	8.5
153	321.49794601	-168.5
215	321.50000007	-106.5
485	321.50000001	163.5
470	321.50000001	148.5
153	321.49795150	-168.5
326	321.50000002	4.5
245	321.50000003	-76.5
405	321.50000001	83.5
322	321.50000001	0.5
246	321.49999861	-75.5
483	321.50000001	161.5
214	321.50000006	-107.5
490	321.50000001	168.5
290	321.50000001	-31.5
215	321.50000007	-106.5
210	321.50000006	-111.5
470	321.50000001	148.5
248	321.50000002	-73.5
488	321.50000001	166.5
259	321.50000002	-62.5
218	321.50000008	-103.5
459	321.50000001	137.5
490	321.50000001	168.5
252	321.50000002	-69.5
470	321.50000001	148.5
274	321.50000002	-47.5
233	321.50000005	-88.5
153	321.49807362	-168.5
245	321.50000003	-76.5
468	321.50000001	146.5

Mean Square Error = 14067.669355

Desired Output	Predict	Error
401	321.49912806	79.5

244	321.49833953	-77.5
368	321.49911755	46.5
447	321.49901287	125.5
286	321.49883091	-35.5
435	321.49898133	113.5
211	321.49790612	-110.5
238	321.49796092	-83.5
412	321.49898530	90.5
153	321.50017504	-168.5
315	321.49881838	-6.5
280	321.49880298	-41.5
260	321.49821741	-61.5
475	321.49910337	153.5
356	321.49910243	34.5
172	321.49881976	-149.5
270	321.49825325	-51.5
319	321.49900677	-2.5
335	321.49906151	13.5
471	321.49915005	149.5
216	321.49783244	-105.5
393	321.49912347	71.5
262	321.49872451	-59.5
308	321.49896514	-13.5
486	321.49915338	164.5
156	321.49954548	-165.5
457	321.49915671	135.5
462	321.49915699	140.5
471	321.49915161	149.5
291	321.49884294	-30.5
302	321.49881091	-19.5

Mean Square Error = 10134.314516

Desired Output	Predict	Error
208	321.50139296	-113.5
293	321.50038448	-28.5
294	321.50042538	-27.5
416	321.50015223	94.5
396	321.50016767	74.5
231	321.50110781	-90.5
412	321.50027986	90.5
232	321.50140963	-89.5
300	321.50035363	-21.5
307	321.50033949	-14.5
467	321.50012793	145.5
490	321.50008663	168.5
309	321.50031580	-12.5
333	321.50035064	11.5
213	321.50137206	-108.5
469	321.50011255	147.5
468	321.50009965	146.5
239	321.50097258	-82.5
377	321.50019445	55.5
288	321.50042005	-33.5
236	321.50110781	-85.5
353	321.50022301	31.5
464	321.50010120	142.5
215	321.50143084	-106.5
268	321.50050212	-53.5
192	321.50830903	-129.51

317	321.50028755	-4.5
290	321.50134989	-31.5
237	321.50552035	-84.51
314	321.50065787	-7.5
489	321.50009003	167.5

Mean Square Error = 8570.9042

Desired Output	Predict	Error
240	206.56686813	33.43
246	217.66110664	28.34
488	321.48096433	166.52
154	156.87667281	-2.88
428	321.09039313	106.91
303	301.59874216	1.4
441	321.31621164	119.68
271	265.46162360	5.54
208	204.79655791	3.2
210	205.53933941	4.46
325	318.14097965	6.86
433	321.18313438	111.82
224	189.73446046	34.27
243	206.71721657	36.28
214	204.81051178	9.19
252	261.69909525	-9.7
241	205.63415406	35.37
209	205.04077127	3.96
208	205.00744143	2.99
307	310.58160771	-3.58
212	205.44793903	6.55
188	163.02317623	24.98
444	321.31861177	122.68
370	316.73288504	53.27
288	217.70483635	70.3
249	230.80136584	18.2
424	320.94493926	103.06
410	320.87519601	89.12
475	321.47170338	153.53
374	319.75432262	54.25
305	306.86714138	-1.87

Mean Square Error = 4544.912577

Desired Output	Predict	Error
484	489.99999997	-6.0
153	489.99999998	-337.0
328	489.99999998	-162.0
322	489.99999998	-168.0
256	489.99999998	-234.0
214	489.99999998	-276.0
436	489.99999997	-54.0
437	489.99999997	-53.0
232	489.99999998	-258.0
349	489.99999998	-141.0
390	489.99999997	-100.0
351	489.99999997	-139.0
365	489.99999997	-125.0
385	489.99999997	-105.0
153	489.99999998	-337.0

209	489.99999998	-281.0
303	489.99999998	-187.0
294	489.99999998	-196.0
390	489.99999997	-100.0
470	489.99999997	-20.0
247	489.99999998	-243.0
380	489.99999998	-110.0
448	489.99999997	-42.0
300	489.99999998	-190.0
427	489.99999997	-63.0
251	489.99999998	-239.0
322	489.99999998	-168.0
294	489.99999998	-196.0
490	489.99999997	0.0
303	489.99999998	-187.0
328	489.99999998	-162.0

Mean Square Error = 32948.935484

Desired Output	Predict	Error
305	489.99704686	-185.0
455	489.99640109	-35.0
381	489.99664138	-109.0
242	489.99754609	-248.0
247	489.99745354	-243.0
156	489.99835700	-334.0
331	489.99714863	-159.0
405	489.99663049	-85.0
447	489.99641919	-43.0
288	489.99716484	-202.0
472	489.99662149	-18.0
230	489.99758336	-260.0
296	489.99705016	-194.0
245	489.99767511	-245.0
350	489.99747100	-140.0
296	489.99707696	-194.0
153	489.99838203	-337.0
390	489.99724622	-100.0
466	489.996555870	-24.0
417	489.99655239	-73.0
280	489.99789701	-210.0
311	489.99691526	-179.0
292	489.99708862	-198.0
430	489.99647742	-60.0
470	489.99625438	-20.0
470	489.99638866	-20.0
253	489.99728497	-237.0
328	489.99711517	-162.0
255	489.99764246	-235.0
234	489.99756102	-256.0
230	489.99758514	-260.0

Mean Square Error = 35400.419355

Desired Output	Predict	Error
490	489.99999976	0.0
337	489.99999980	-153.0
345	489.99999980	-145.0
390	489.99999981	-100.0

465	489.99999978	-25.0
232	489.99999984	-258.0
207	489.99999991	-283.0
420	489.99999980	-70.0
211	489.99999985	-279.0
250	489.99999982	-240.0
235	489.99999984	-255.0
235	489.99999985	-255.0
234	489.99999984	-256.0
294	489.99999981	-196.0
370	489.99999980	-120.0
397	489.99999979	-93.0
265	489.99999982	-225.0
465	489.99999979	-25.0
344	489.99999980	-146.0
450	489.99999979	-40.0
471	489.99999978	-19.0
319	489.99999981	-171.0
234	489.99999984	-256.0
165	489.99999991	-325.0
478	489.99999977	-12.0
236	489.99999983	-254.0
238	489.99999984	-252.0
478	489.99999976	-12.0
360	489.99999983	-130.0
481	489.99999977	-9.0
433	489.99999979	-57.0

Mean Square Error = 32986.16129

***** Mean Square Error Average : 16718.2564 *****
4544.912577

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.98

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
412	321.50000000	90.5
209	321.50000000	-112.5
490	321.50000000	168.5
424	321.50000000	102.5
288	321.50000000	-33.5
351	321.50000000	29.5
475	321.50000000	153.5
370	321.50000000	48.5
156	321.49999793	-165.5
404	321.50000000	82.5
341	321.50000000	19.5
396	321.50000000	74.5
330	321.50000000	8.5
470	321.50000000	148.5
478	321.50000000	156.5
260	321.50000000	-61.5
214	321.50000000	-107.5

413	321.50000000	91.5
209	321.50000000	-112.5
382	321.50000000	60.5
305	321.50000000	-16.5
457	321.50000000	135.5
215	321.50000000	-106.5
448	321.50000000	126.5
217	321.50000000	-104.5
447	321.50000000	125.5
333	321.50000000	11.5
234	321.50000000	-87.5
450	321.50000000	128.5
427	321.50000000	105.5
218	321.50000000	-103.5

Mean Square Error = 10748.830645

Desired Output	Predict	Error
340	153.43522376	186.56
288	153.43564937	134.56
315	153.43364962	161.57
259	153.44160166	105.56
315	153.43375077	161.57
405	153.43321120	251.57
238	153.43652855	84.56
297	153.43668429	143.56
490	153.43309071	336.57
153	153.45061556	-0.45
337	153.43346766	183.57
370	153.43461123	216.57
470	153.43311743	316.57
320	153.43376753	166.57
465	153.43310784	311.57
293	153.43398003	139.57
349	153.43340580	195.57
322	153.43356520	168.57
456	153.43308828	302.57
232	153.43671490	78.56
350	153.43506414	196.56
271	153.43421599	117.57
435	153.43387933	281.57
153	153.45000985	-0.45
307	153.43380454	153.57
377	153.43328689	223.57
431	153.43312642	277.57
300	153.43557145	146.56
319	153.43355421	165.57
339	153.43337226	185.57
248	153.43482307	94.57

Mean Square Error = 38216.721829

Desired Output	Predict	Error
326	489.99985005	-164.0
328	489.99983787	-162.0
208	489.99982065	-282.0
468	489.99989128	-22.0
390	489.99986421	-100.0
245	489.99983867	-245.0

405	489.99987104	-85.0
450	489.99988387	-40.0
356	489.99988234	-134.0
317	489.99987077	-173.0
213	489.99981769	-277.0
327	489.99986844	-163.0
311	489.99987393	-179.0
490	489.99989582	0.0
353	489.99988052	-137.0
298	489.99986977	-192.0
390	489.99988472	-100.0
333	489.99987848	-157.0
322	489.99987039	-168.0
235	489.99983350	-255.0
240	489.99983523	-250.0
486	489.99989462	-4.0
290	489.99981409	-200.0
410	489.99988348	-80.0
317	489.99987544	-173.0
238	489.99983747	-252.0
490	489.99989543	0.0
215	489.99981455	-275.0
153	489.99964804	-337.0
444	489.99988869	-46.0
483	489.99989323	-7.0

Mean Square Error = 31369.709677

Desired Output	Predict	Error
323	153.00032826	170.0
302	153.00033107	149.0
230	153.00033679	77.0
207	153.00034668	54.0
300	153.00033017	147.0
294	153.00032997	141.0
286	153.00033083	133.0
234	153.00033490	81.0
462	153.00032551	309.0
247	153.00033354	94.0
460	153.00032859	307.0
308	153.00033131	155.0
470	153.00032469	317.0
433	153.00033092	280.0
314	153.00033568	161.0
441	153.00032560	288.0
470	153.00032686	317.0
294	153.00033126	141.0
276	153.00033094	123.0
488	153.00032492	335.0
291	153.00033049	138.0
230	153.00033477	77.0
470	153.00032585	317.0
235	153.00033605	82.0
471	153.00032595	318.0
270	153.00034259	117.0
308	153.00032954	155.0
154	153.00034616	1.0
444	153.00032514	291.0
489	153.00032435	336.0
280	153.00034016	127.0

Mean Square Error = 44144.709677

Desired Output	Predict	Error
490	153.00004062	337.0
153	153.00009077	-0.0
466	153.00004146	313.0
262	153.00005563	109.0
340	153.00005471	187.0
165	153.00008914	12.0
459	153.00004224	306.0
230	153.00006418	77.0
390	153.00005130	237.0
457	153.00004228	304.0
290	153.00005385	137.0
410	153.00004396	257.0
242	153.00006253	89.0
471	153.00004124	318.0
237	153.00008222	84.0
153	153.00009025	-0.0
390	153.00004480	237.0
241	153.00006279	88.0
156	153.00008960	3.0
486	153.00004021	333.0
168	153.00008880	15.0
244	153.00006197	91.0
484	153.00004141	331.0
153	153.00009077	-0.0
292	153.00005277	139.0
213	153.00006824	60.0
256	153.00005641	103.0
314	153.00006173	161.0
468	153.00004114	315.0
246	153.00006064	93.0
315	153.00005353	162.0

Mean Square Error = 38517.677419

Desired Output	Predict	Error
333	321.50000000	11.5
305	321.50000000	-16.5
325	321.50000000	3.5
288	321.50000000	-33.5
294	321.50000000	-27.5
153	321.49982845	-168.5
469	321.50000000	147.5
319	321.50000000	-2.5
385	321.50000000	63.5
211	321.49999995	-110.5
310	321.50000000	-11.5
156	321.49988712	-165.5
490	321.50000000	168.5
236	321.49999997	-85.5
401	321.50000000	79.5
313	321.50000000	-8.5
433	321.50000000	111.5
344	321.50000000	22.5
451	321.50000000	129.5
428	321.50000000	106.5

468	321.50000000	146.5
470	321.50000000	148.5
315	321.50000000	-6.5
240	321.49999997	-81.5
447	321.50000000	125.5
416	321.50000000	94.5
188	321.49993545	-133.5
234	321.49999998	-87.5
455	321.50000000	133.5
303	321.50000000	-18.5
284	321.50000000	-37.5

Mean Square Error = 9654.508065

Desired Output	Predict	Error
471	153.00327679	318.0
215	153.00264729	62.0
209	153.00267686	56.0
300	153.00285601	147.0
245	153.00268049	92.0
412	153.00314252	259.0
288	153.00282609	135.0
212	153.00269728	59.0
420	153.00292455	267.0
265	153.00281665	112.0
469	153.00323083	316.0
192	153.00210214	39.0
232	153.00266280	79.0
436	153.00301409	283.0
438	153.00308506	285.0
328	153.00290961	175.0
460	153.00326112	307.0
440	153.00302981	287.0
255	153.00275904	102.0
249	153.00290283	96.0
445	153.00310852	292.0
467	153.00321558	314.0
303	153.00302682	150.0
252	153.00284702	99.0
329	153.00286503	176.0
155	153.00206372	2.0
464	153.00328468	311.0
239	153.00271150	86.0
327	153.00287631	174.0
374	153.00289344	221.0
368	153.00288530	215.0

Mean Square Error = 41393.290323

Desired Output	Predict	Error
210	321.49896888	-111.5
153	321.46785557	-168.47
236	321.49937280	-85.5
290	321.49969443	-31.5
215	321.49892354	-106.5
357	321.49980782	35.5
231	321.49923195	-90.5
250	321.49916010	-71.5
250	321.49958389	-71.5

225	321.49887354	-96.5
485	321.49986682	163.5
478	321.49986205	156.5
214	321.49896631	-107.5
209	321.49895436	-112.5
253	321.49960651	-68.5
489	321.49986868	167.5
328	321.49973300	6.5
164	321.47562859	-157.48
210	321.49896124	-111.5
209	321.49895367	-112.5
365	321.49981162	43.5
361	321.49981029	39.5
467	321.49985021	145.5
308	321.49975622	-13.5
360	321.49953614	38.5
472	321.49985545	150.5
247	321.49946664	-74.5
221	321.49886329	-100.5
325	321.49978129	3.5
481	321.49986829	159.5
253	321.49961333	-68.5

Mean Square Error = 11041.785203

Desired Output	Predict	Error
232	321.49999418	-89.5
296	321.49999747	-25.5
291	321.49999739	-30.5
303	321.49999753	-18.5
208	321.49999193	-113.5
465	321.49999805	143.5
471	321.49999809	149.5
156	321.44892053	-165.45
243	321.49999509	-78.5
160	321.45165809	-161.45
311	321.49999767	-10.5
209	321.49999162	-112.5
335	321.49999783	13.5
417	321.49999799	95.5
233	321.49999445	-88.5
427	321.49999803	105.5
331	321.49999754	9.5
231	321.49999426	-90.5
246	321.49974497	-75.5
211	321.49999199	-110.5
376	321.49999796	54.5
294	321.49999746	-27.5
245	321.49999566	-76.5
296	321.49999749	-25.5
420	321.49999780	98.5
465	321.49999802	143.5
274	321.49999713	-47.5
475	321.49999812	153.5
360	321.49999793	38.5
246	321.49999579	-75.5
362	321.49999730	40.5

Mean Square Error = 8637.001774

Desired Output	Predict	Error
397	321.50046092	75.5
268	321.50067346	-53.5
345	321.50049088	23.5
454	321.50046514	132.5
398	321.50057833	76.5
322	321.50063481	0.5
381	321.50046732	59.5
251	321.50077520	-70.5
437	321.50044997	115.5
307	321.50055729	-14.5
305	321.50056661	-16.5
224	321.51529539	-97.52
393	321.50046215	71.5
270	321.50119131	-51.5
240	321.50155294	-81.5
380	321.50067322	58.5
490	321.50044429	168.5
430	321.50045154	108.5
172	321.52398991	-149.52
153	321.53028729	-168.53
216	321.50177727	-105.5
309	321.50054969	-12.5
208	321.50169111	-113.5
252	321.50076233	-69.5
490	321.50044462	168.5
328	321.50057342	6.5
280	321.50063395	-41.5
259	321.50070169	-62.5
247	321.50091350	-74.5
214	321.50174446	-107.5
422	321.50045206	100.5

Mean Square Error = 8496.378765

***** Mean Square Error Average : 24222.0613 *****
8496.378765

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 0.99

Momentum rate : 0.07

Activaion Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output	Predict	Error
296	153.02435849	142.98
302	153.02435613	148.98
349	153.02436734	195.98
465	153.02437812	311.98
153	153.02422021	-0.02
333	153.02436602	179.98
215	153.02432131	61.98
215	153.02432054	61.98
235	153.02432175	81.98
470	153.02438781	316.98
276	153.02435253	122.98

339	153.02436714	185.98
440	153.02437743	286.98
422	153.02437387	268.98
313	153.02436365	159.98
311	153.02436432	157.98
291	153.02435800	137.98
214	153.02432410	60.98
490	153.02439242	336.98
215	153.02432229	61.98
290	153.02431343	136.98
333	153.02435933	179.98
454	153.02436741	300.98
252	153.02435108	98.98
478	153.02438675	324.98
450	153.02436503	296.98
208	153.02432657	54.98
259	153.02435066	105.98
245	153.02433869	91.98
467	153.02437530	313.98
328	153.02436575	174.98

Mean Square Error = 39291.755239

Desired Output	Predict	Error
450	153.00081392	297.0
468	153.00080553	315.0
288	153.00085979	135.0
460	153.00081111	307.0
235	153.00088388	82.0
224	153.00092342	71.0
357	153.00083785	204.0
328	153.00084746	175.0
489	153.00078834	336.0
436	153.00081946	283.0
300	153.00085166	147.0
156	153.00094482	3.0
251	153.00086505	98.0
172	153.00094237	19.0
445	153.00082145	292.0
292	153.00085922	139.0
413	153.00083270	260.0
469	153.00080499	316.0
156	153.00094452	3.0
322	153.00085082	169.0
466	153.00080566	313.0
390	153.00083054	237.0
153	153.00094769	-0.0
320	153.00084899	167.0
447	153.00079651	294.0
156	153.00094473	3.0
234	153.00088296	81.0
315	153.00084781	162.0
328	153.00084785	175.0
382	153.00083155	229.0
427	153.00082453	274.0

Mean Square Error = 44145.548387

Desired Output	Predict	Error
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444	321.50000002	122.5
255	321.50000014	-66.5
360	321.50000004	38.5
360	321.50000008	38.5
471	321.50000002	149.5
216	321.50000016	-105.5
412	321.50000002	90.5
210	321.50000014	-111.5
457	321.50000002	135.5
250	321.50000007	-71.5
232	321.50000016	-89.5
325	321.50000004	3.5
335	321.50000004	13.5
322	321.50000004	0.5
315	321.50000005	-6.5
238	321.50000016	-83.5
390	321.50000004	68.5
214	321.50000015	-107.5
280	321.50000008	-41.5
270	321.50000013	-51.5
309	321.50000004	-12.5
236	321.50000015	-85.5
207	321.48787250	-114.49
356	321.50000004	34.5
232	321.50000018	-89.5
288	321.50000013	-33.5
249	321.50000008	-72.5
311	321.50000004	-10.5
350	321.50000010	28.5
365	321.50000004	43.5
310	321.50000005	-11.5

Mean Square Error = 5642.305165

Desired Output	Predict	Error
305	321.50034859	-16.5
484	321.50009054	162.5
230	321.50258265	-91.5
192	321.52888324	-129.53
319	321.50025717	-2.5
337	321.50022389	15.5
248	321.50087990	-73.5
490	321.50008857	168.5
317	321.50032753	-4.5
303	321.50037075	-18.5
239	321.50136443	-82.5
247	321.50094665	-74.5
270	321.50718240	-51.51
345	321.50020993	23.5
412	321.50029296	90.5
377	321.50016629	55.5
308	321.50030154	-13.5
475	321.50009251	153.5
390	321.50014140	68.5
370	321.50072422	48.5
405	321.50033414	83.5
475	321.50012903	153.5
271	321.50054437	-50.5
213	321.50252739	-108.5
247	321.50102367	-74.5

305	321.50035682	-16.5
483	321.50010307	161.5
467	321.50010480	145.5
217	321.50261335	-104.5
344	321.50018476	22.5
315	321.50027042	-6.5

Mean Square Error = 8169.501645

Desired Output	Predict	Error
209	321.51586805	-112.52
240	321.51424970	-81.51
209	321.51593631	-112.52
259	321.51730941	-62.52
398	321.51310929	76.49
245	321.51508773	-76.52
209	321.51595436	-112.52
353	321.51276646	31.49
428	321.51295363	106.49
490	321.51420674	168.49
401	321.51267262	79.49
178	321.51694965	-143.52
444	321.51333918	122.49
314	321.51543855	-7.52
250	321.51502360	-71.52
470	321.51366432	148.49
253	321.51350131	-68.51
209	321.51597436	-112.52
317	321.51284917	-4.51
231	321.51371392	-90.51
242	321.51346173	-79.51
168	321.51711922	-153.52
308	321.51303101	-13.51
489	321.51419284	167.49
300	321.51276229	-21.51
286	321.51276389	-35.51
155	321.51713080	-166.52
290	321.51319500	-31.51
165	321.51723287	-156.52
306	321.51281299	-15.51
490	321.51420735	168.49

Mean Square Error = 10882.862152

Desired Output	Predict	Error
457	489.99983062	-33.0
230	489.99982908	-260.0
241	489.99982918	-249.0
307	489.99983008	-183.0
465	489.99983053	-25.0
314	489.99982924	-176.0
260	489.99982908	-230.0
268	489.99982981	-222.0
153	489.99982394	-337.0
331	489.99982998	-159.0
305	489.99983006	-185.0
218	489.99982866	-272.0
319	489.99983021	-171.0
247	489.99982941	-243.0

153	489.99982386	-337.0
230	489.99982909	-260.0
209	489.99982870	-281.0
341	489.99983032	-149.0
328	489.99982929	-162.0
438	489.99983036	-52.0
221	489.99982866	-269.0
300	489.99982920	-190.0
234	489.99982923	-256.0
325	489.99983025	-165.0
470	489.99983059	-20.0
232	489.99982912	-258.0
288	489.99982989	-202.0
315	489.99983011	-175.0
213	489.99982873	-277.0
303	489.99982915	-187.0
451	489.99983065	-39.0

Mean Square Error = 45078.258065

Desired Output	Predict	Error
211	321.49994745	-110.5
240	321.49997334	-81.5
433	321.49999807	111.5
290	321.49999315	-31.5
447	321.49999820	125.5
245	321.49997899	-76.5
211	321.49994813	-110.5
307	321.49999511	-14.5
243	321.49997558	-78.5
274	321.49999203	-47.5
238	321.49995167	-83.5
368	321.49999751	46.5
470	321.49999833	148.5
456	321.49999840	134.5
424	321.49999793	102.5
381	321.49999752	59.5
488	321.49999851	166.5
160	321.49209080	-161.49
256	321.49999054	-65.5
308	321.49999333	-13.5
294	321.49999314	-27.5
486	321.49999852	164.5
240	321.49995509	-81.5
460	321.49999842	138.5
490	321.49999853	168.5
380	321.49999180	58.5
236	321.49996674	-85.5
164	321.49226496	-157.49
322	321.49999630	0.5
265	321.49999123	-56.5
327	321.49999656	5.5

Mean Square Error = 10229.270006

Desired Output	Predict	Error
420	489.99999872	-70.0
209	489.99999888	-281.0
215	489.99999888	-275.0

329	489.99999874	-161.0
252	489.99999883	-238.0
478	489.99999872	-12.0
416	489.99999871	-74.0
293	489.99999880	-197.0
470	489.99999872	-20.0
262	489.99999881	-228.0
153	489.99999891	-337.0
327	489.99999882	-163.0
253	489.99999882	-237.0
154	489.99999891	-336.0
459	489.99999872	-31.0
481	489.99999877	-9.0
303	489.99999878	-187.0
471	489.99999873	-19.0
351	489.99999872	-139.0
468	489.99999880	-22.0
330	489.99999882	-160.0
153	489.99999891	-337.0
246	489.99999885	-244.0
441	489.99999871	-49.0
427	489.99999871	-63.0
393	489.99999873	-97.0
234	489.99999885	-256.0
481	489.99999872	-9.0
435	489.99999879	-55.0
431	489.99999871	-59.0
294	489.99999880	-196.0

Mean Square Error = 33202.16129

Desired Output	Predict	Error
288	153.00000184	135.0
296	153.00000185	143.0
490	153.00000204	337.0
490	153.00000205	337.0
417	153.00000208	264.0
397	153.00000204	244.0
280	153.00000174	127.0
333	153.00000180	180.0
340	153.00000179	187.0
448	153.00000209	295.0
153	153.00000182	-0.0
471	153.00000205	318.0
462	153.00000208	309.0
294	153.00000188	141.0
210	153.00000174	57.0
396	153.00000208	243.0
326	153.00000174	173.0
214	153.00000174	61.0
370	153.00000202	217.0
374	153.00000202	221.0
485	153.00000197	332.0
420	153.00000188	267.0
233	153.00000179	80.0
410	153.00000207	257.0
284	153.00000186	131.0
246	153.00000181	93.0
486	153.00000200	333.0
246	153.00000178	93.0

405		153.00000210		252.0
208		153.00000173		55.0
470		153.00000209		317.0

Mean Square Error = 49685.774194

Desired Output		Predict		Error
376		489.99997968		-114.0
472		489.99997864		-18.0
455		489.99998030		-35.0
340		489.99997626		-150.0
488		489.99998071		-2.0
410		489.99997999		-80.0
291		489.99997728		-199.0
156		489.99997315		-334.0
212		489.99997461		-278.0
361		489.99997914		-129.0
188		489.99997333		-302.0
297		489.99997505		-193.0
153		489.99997300		-337.0
471		489.99998015		-19.0
465		489.99998037		-25.0
208		489.99997456		-282.0
294		489.99997735		-196.0
244		489.99997583		-246.0
469		489.99998037		-21.0
362		489.99997644		-128.0
433		489.99997869		-57.0
490		489.99998065		0.0
390		489.99997680		-100.0
298		489.99997749		-192.0
468		489.99998065		-22.0
153		489.99997320		-337.0
385		489.99997953		-105.0
404		489.99997993		-86.0
464		489.99998064		-26.0
437		489.99998020		-53.0
225		489.99997493		-265.0

Mean Square Error = 31713.451613

***** Mean Square Error Average : 27804.0888 *****
5642.305165

----- Variable -----

Datafile : Flood data set

Nueral name : 8-10-6-1

Learning rate : 1.0

Momentum rate : 0.07

Activaiton Function : sigmoid

Cross validation : [90 : 10]

#Epoch : 1000

Desired Output		Predict		Error
214		321.46075591		-107.46
215		321.45995902		-106.46
427		321.49185095		105.51
319		321.49036120		-2.49
471		321.49210849		149.51

380	321.48685447	58.51
237	320.71432802	-83.71
246	321.07136303	-75.07
333	321.49067568	11.51
234	321.47715533	-87.48
412	321.49013457	90.51
238	321.47750263	-83.48
290	321.45400772	-31.45
250	321.46944990	-71.47
274	321.48721857	-47.49
296	321.48896102	-25.49
153	314.98881313	-161.99
327	321.49065755	5.51
405	321.48968598	83.51
236	321.47797449	-85.48
268	321.48681037	-53.49
325	321.49049303	3.51
374	321.49133675	52.51
288	321.47590273	-33.48
327	321.48830550	5.51
330	321.48844878	8.51
466	321.49191473	144.51
430	321.49188943	108.51
471	321.49208498	149.51
483	321.49221380	161.51
156	316.31087256	-160.31

Mean Square Error = 8341.603719

Desired Output	Predict	Error
236	321.51062747	-85.51
315	321.50791965	-6.51
393	321.50755627	71.49
207	321.52279183	-114.52
210	321.51213622	-111.51
250	321.50921041	-71.51
357	321.50763243	35.49
410	321.50749352	88.49
319	321.50786099	-2.51
325	321.50819977	3.49
245	321.50985635	-76.51
253	321.50893423	-68.51
178	321.52533041	-143.53
311	321.50799109	-10.51
270	321.51060420	-51.51
153	321.52778296	-168.53
490	321.50764290	168.49
457	321.50757243	135.49
247	321.50966239	-74.51
270	321.51465730	-51.51
306	321.50798000	-15.51
435	321.50819227	113.49
356	321.50754369	34.49
382	321.50751433	60.49
486	321.50762358	164.49
376	321.50751927	54.49
323	321.50774761	1.49
405	321.50748310	83.49
428	321.50783648	106.49
470	321.50761648	148.49

294		321.50831276		-27.51
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Mean Square Error = 8342.474677

Desired Output		Predict		Error
322		321.50074696		0.5
381		321.50037528		59.5
451		321.50035596		129.5
315		321.50048752		-6.5
153		321.52940248		-168.53
153		321.52886846		-168.53
230		321.50236786		-91.5
233		321.50150608		-88.5
475		321.50057323		153.5
444		321.50034232		122.5
208		321.50228457		-113.5
309		321.50055734		-12.5
315		321.50074367		-6.5
238		321.50220222		-83.5
252		321.50093948		-69.5
422		321.50033811		100.5
234		321.50147524		-87.5
484		321.50039084		162.5
450		321.50041964		128.5
308		321.50057190		-13.5
297		321.50232424		-24.5
328		321.50046241		6.5
471		321.50038126		149.5
291		321.50068013		-30.5
377		321.50037898		55.5
314		321.50148412		-7.5
293		321.50066114		-28.5
337		321.50044387		15.5
303		321.50060701		-18.5
341		321.50043590		19.5
244		321.50132466		-77.5

Mean Square Error = 8145.547477

Desired Output		Predict		Error
322		489.99997881		-168.0
230		489.99998980		-260.0
398		489.99998002		-92.0
344		489.99997017		-146.0
475		489.99995776		-15.0
217		489.99999196		-273.0
303		489.99999015		-187.0
438		489.99997128		-52.0
478		489.99995763		-12.0
168		489.99999673		-322.0
300		489.99997902		-190.0
231		489.99998973		-259.0
370		489.99998508		-120.0
397		489.99996620		-93.0
213		489.99999199		-277.0
242		489.99998907		-248.0
339		489.99997103		-151.0
247		489.99998779		-243.0
413		489.99996522		-77.0

360	489.99996790	-130.0
412	489.99998035	-78.0
465	489.99996479	-25.0
468	489.99996013	-22.0
232	489.99999160	-258.0
246	489.99998822	-244.0
317	489.99997631	-173.0
280	489.99999345	-210.0
333	489.99998214	-157.0
300	489.99997996	-190.0
468	489.99997205	-22.0
433	489.99996243	-57.0

Mean Square Error = 31703.387097

Desired Output	Predict	Error
245	153.05048109	91.95
307	153.05022016	153.95
155	153.05220580	1.95
314	153.05039131	160.95
467	153.05012251	313.95
311	153.05021005	157.95
308	153.05021532	154.95
240	153.05049287	86.95
302	153.05025119	148.95
333	153.05021918	179.95
410	153.05015012	256.95
365	153.05017373	211.95
469	153.05012136	315.95
322	153.05019771	168.95
401	153.05016457	247.95
303	153.05022295	149.95
368	153.05016655	214.95
489	153.05010650	335.95
209	153.05053007	55.95
234	153.05044989	80.95
440	153.05013403	286.95
470	153.05012144	316.95
153	153.05229854	-0.05
490	153.05010485	336.95
490	153.05010517	336.95
459	153.05012586	305.95
465	153.05012823	311.95
431	153.05013898	277.95
488	153.05010678	334.95
294	153.05023201	140.95
248	153.05032479	94.95

Mean Square Error = 50930.947661

Desired Output	Predict	Error
385	321.49999153	63.5
208	321.49991448	-113.5
390	321.49998461	68.5
470	321.49999245	148.5
265	321.49998171	-56.5
310	321.49998784	-11.5
246	321.49996805	-75.5
153	321.47478616	-168.47

241	321.49995484	-80.5
390	321.49999176	68.5
259	321.49917542	-62.5
245	321.49996373	-76.5
243	321.49995950	-78.5
298	321.49998683	-23.5
215	321.49990720	-106.5
437	321.49999225	115.5
317	321.49998797	-4.5
153	321.47801060	-168.48
290	321.49998508	-31.5
361	321.49999094	39.5
260	321.49994881	-61.5
291	321.49998569	-30.5
232	321.49994998	-89.5
485	321.49999260	163.5
240	321.49994572	-81.5
209	321.49990964	-112.5
447	321.49999234	125.5
211	321.49991393	-110.5
215	321.49990809	-106.5
445	321.49999103	123.5
481	321.49999266	159.5

Mean Square Error = 9777.448429

Desired Output	Predict	Error
469	321.49835247	147.5
292	321.49781209	-29.5
153	321.19064362	-168.19
224	321.41735067	-97.42
214	321.49446555	-107.49
471	321.49837002	149.5
290	321.49770384	-31.5
464	321.49839015	142.5
420	321.49809035	98.5
331	321.49786606	9.5
288	321.49771450	-33.5
427	321.49833732	105.5
370	321.49822724	48.5
390	321.49827576	68.5
209	321.49444483	-112.49
249	321.49721636	-72.5
460	321.49838791	138.5
329	321.49815136	7.5
160	321.26177357	-161.26
156	321.24323431	-165.24
288	321.49777446	-33.5
240	321.49617540	-81.5
255	321.49567024	-66.5
350	321.49683927	28.5
305	321.49790641	-16.5
447	321.49817518	125.5
294	321.49784859	-27.5
280	321.49767241	-41.5
235	321.49472864	-86.49
396	321.49829806	74.5
490	321.49840334	168.5

Mean Square Error = 9938.006387

Desired Output	Predict	Error
467	321.50107944	145.5
294	321.50159167	-27.5
345	321.50106613	23.5
472	321.50154990	150.5
457	321.50108607	135.5
490	321.50124787	168.5
259	321.50168402	-62.5
335	321.50104085	13.5
231	321.50254583	-90.5
305	321.50129127	-16.5
156	321.50909179	-165.51
349	321.50105948	27.5
460	321.50107724	138.5
212	321.50329214	-109.5
450	321.50093436	128.5
353	321.50104816	31.5
417	321.50087438	95.5
156	321.50908975	-165.51
305	321.50136309	-16.5
218	321.50317901	-103.5
256	321.50172391	-65.5
448	321.50090291	126.5
420	321.50088037	98.5
230	321.50252782	-91.5
490	321.50118120	168.5
424	321.50089260	102.5
362	321.50203135	40.5
313	321.50125805	-8.5
221	321.50316767	-100.5
276	321.50150539	-45.5
165	321.50892241	-156.51

Mean Square Error = 11109.725816

Desired Output	Predict	Error
470	489.99999107	-20.0
470	489.99999283	-20.0
490	489.99999146	0.0
172	489.99999096	-318.0
239	489.99999181	-251.0
262	489.99999173	-228.0
251	489.99999185	-239.0
300	489.99999190	-190.0
188	489.99999101	-302.0
416	489.99999082	-74.0
340	489.99999194	-150.0
481	489.99999218	-9.0
211	489.99999186	-279.0
468	489.99999105	-22.0
456	489.99999096	-34.0
213	489.99999185	-277.0
315	489.99999161	-175.0
209	489.99999184	-281.0
215	489.99999180	-275.0
271	489.99999168	-219.0
154	489.99999090	-336.0
208	489.99999184	-282.0

433	489.99999171	-57.0
326	489.99999220	-164.0
465	489.99999104	-25.0
192	489.99999106	-298.0
488	489.99999126	-2.0
286	489.99999161	-204.0
489	489.99999130	-1.0
235	489.99999177	-255.0
328	489.99999187	-162.0

Mean Square Error = 40763.129032

Desired Output	Predict	Error
436	321.49999994	114.5
216	321.49999791	-105.5
288	321.49999979	-33.5
164	321.49393579	-157.49
490	321.49999995	168.5
232	321.49999895	-89.5
404	321.49999993	82.5
444	321.49999994	122.5
252	321.49999969	-69.5
390	321.49999983	68.5
308	321.49999980	-13.5
462	321.49999994	140.5
360	321.49999962	38.5
209	321.49999821	-112.5
328	321.49999935	6.5
214	321.49999827	-107.5
209	321.49999821	-112.5
441	321.49999994	119.5
225	321.49999780	-96.5
455	321.49999994	133.5
253	321.49999970	-68.5
210	321.49999828	-111.5
328	321.49999984	6.5
454	321.49999993	132.5
478	321.49999995	156.5
470	321.49999994	148.5
153	321.48776244	-168.49
307	321.49999984	-14.5
340	321.49999973	18.5
351	321.49999991	29.5
486	321.49999995	164.5

Mean Square Error = 11476.555813

***** Mean Square Error Average : 19052.8826 *****
8145.547477

