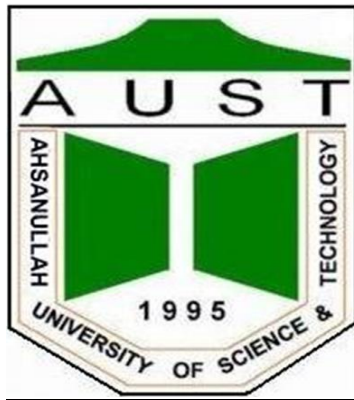# AHSANULLAH UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Computer Science & Engineering

Course No: CSE 4238

Course Name: Soft Computing Lab

Section: B   Lab Group: B2

Semester: Fall 2020, Assignment No: 2

Submitted By:

Name: **Shifat Islam**

ID: **17.01.04.100**

Comparison between two Experiment

Dataset 1:

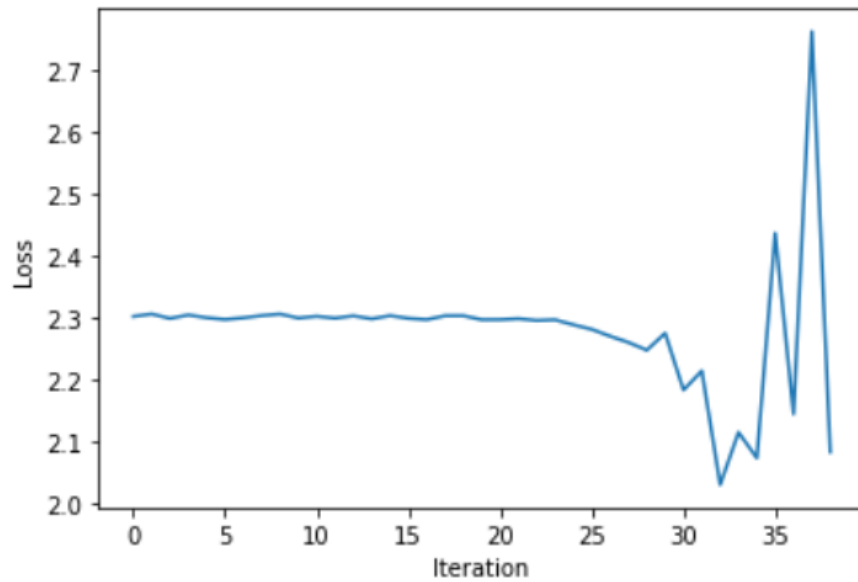| Experiment No.	Experiment 1	Experiment 2(Best)
Activation Function	Relu	Selu
Optimizer	SGD	Adam
Iteration	20,000	20,000
Batch size	20	200
Learning Rate	0.01	0.001
Number Of Hidden layers	6	4
Number Of nodes in each Hidden Layer	200	100
Input Dimension	28*28	28*28
Output Dimension	10	10
Accuracy:	15.03	91.87817

Loss vs Iteration Curve:

Fig-1: Loss curve for Experiment 1
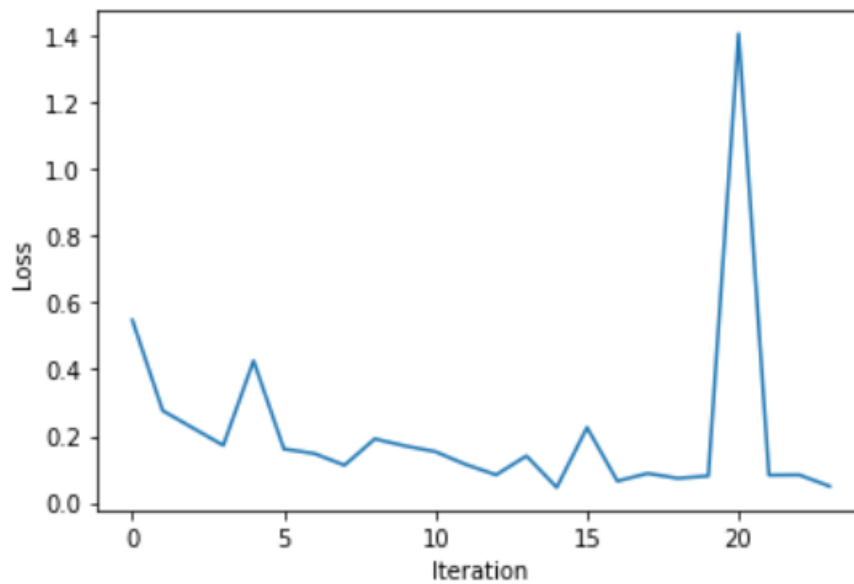
Fig-2: Loss Curve for Experiment 2 (Best result)

Comparison Between Two Dataset:

Experiment No.	Dataset1		Dataset2	
	Experiment 1	Experiment 2(Best)	Experiment 1	Experiment 2(Best)
Activation Function	Relu	Relu	Relu	Relu
Optimizer	SGD	Adam	SGD	Adam
Iteration	20,000	20,000	20,000	20,000
Batch size	20	200	20	200
Learning Rate	0.01	0.001	0.01	0.001
Number Of Hidden layers	6	4	6	4
Number Of nodes in each Hidden Layer	200	100	200	100
Input Dimension	28*28	28*28	28*28	28*28
Output Dimension	10	10	10	10

Github link:

https://github.com/ShifatIslam/Soft-Computing-Assignment