EXPERIMENT 3 :- THRESHOLD FREQUENCY = 40

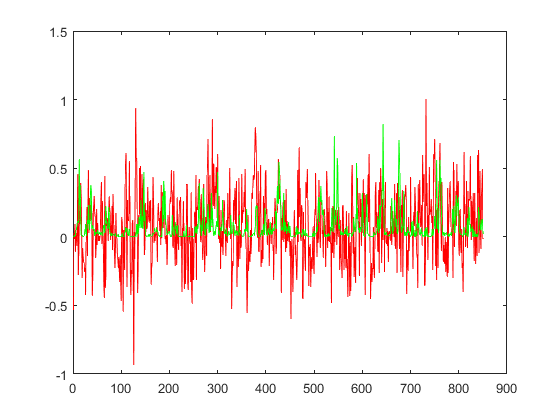
--------------- **RAINFALL NORMALISED | LINEAR KERNEL FUNCTION**  ---------------

|  |  |  |  |
| --- | --- | --- | --- |
| **INPUT** | | **MODEL** | |
| TRAINING SET | CONCATENATED INSTANCES FROM 1 TO 3904, FROM 2 TO 3905 AND FROM 3 TO 3906 OF EXTMAT | SUPPORT VECTOR MACHINE REGRESSION MODEL | |
| TARGET FOR THE TRAINING SET | INSTANCES FROM 4 TO 3907 OF rain\_mum\_1969\_2007\_1grid\_norm | TRAINING | * mdl7 = fitrsvm(T4,G) * Trained using the predictor values in the matrix T4 and the response values in the vector G * T4[3904 x 4785]=instances from 1 to 3904, from 2 to 3905 and from 3 to 3906 of EXTMAT * G[3904 x 1]=instances from 4 to 3907 of rain\_mum\_1969\_2007\_1grid\_norm |
| TEST SET | CONCATENATED INSTANCES FROM 3905 TO 4755, FROM 3906 TO 4756 AND FROM 3907 TO 4757 OF EXTMAT | PREDICTING | * yfit7 = predict(mdl7,Tp4) * Tp4 is the Test set * Tp4[851 x 4785]=instances from 3905 to 4755, from 3906 to 4756 and from 3907 to 4757 of EXTMAT |
| TARGET FOR THE TEST SET | INSTANCES FROM 3908 TO 4758 OF rain\_mum\_1969\_2007\_1grid\_norm | TESTING | * err7= immse(yfit7,Gp) = **0.0631** * err7 is the Mean Square Error * yfit7[851 x 1]=predicted values on the Test set * Gp[851 x 1]=instances from 3908 to 4758 of rain\_mum\_1969\_2007\_1grid\_norm |

PLOTTING : plot(yfit7,'r')

hold on;

plot(Gp,'g')



--------------- **RAINFALL NORMALISED | GAUSSIAN KERNEL FUNCTION**  ---------------

|  |  |  |  |
| --- | --- | --- | --- |
| **INPUT** | | **MODEL** | |
| TRAINING SET | CONCATENATED INSTANCES FROM 1 TO 3904, FROM 2 TO 3905 AND FROM 3 TO 3906 OF EXTMAT | SUPPORT VECTOR MACHINE REGRESSION MODEL | |
| TARGET FOR THE TRAINING SET | INSTANCES FROM 4 TO 3907 OF rain\_mum\_1969\_2007\_1grid\_norm | TRAINING | * mdl8 = fitrsvm(T4,G,’KernelFunction’,’gaussian’) * Trained using the predictor values in the matrix T4 and the response values in the vector G * T4[3904 x 4785]=instances from 1 to 3904, from 2 to 3905 and from 3 to 3906 of EXTMAT * G[3904 x 1]=instances from 4 to 3907 of rain\_mum\_1969\_2007\_1grid\_norm |
| TEST SET | CONCATENATED INSTANCES FROM 3905 TO 4755, FROM 3906 TO 4756 AND FROM 3907 TO 4757 OF EXTMAT | PREDICTING | * yfit8 = predict(mdl8,Tp4) * Tp4 is the Test set * Tp4[851 x 4785]= instances from 3905 to 4755, from 3906 to 4756 and from 3907 to 4757 of EXTMAT |
| TARGET FOR THE TEST SET | INSTANCES FROM 3908 TO 4758 OF rain\_mum\_1969\_2007\_1grid\_norm | TESTING | * err8= immse(yfit8,Gp) = **0.0122** * err8 is the Mean Square Error * yfit8[851 x 1]=predicted values on the Test set * Gp[851 x 1]=instances from 3908 to 4758 of rain\_mum\_1969\_2007\_1grid\_norm |

PLOTTING : plot(yfit8,'r')

hold on;

plot(Gp,'g')

