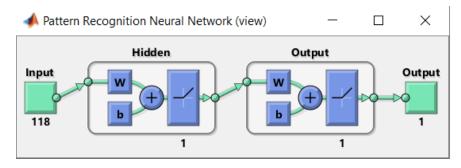
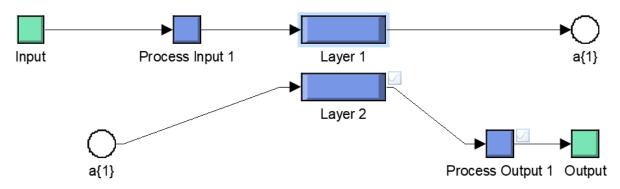
17/8/2020 – pattern recognition neural network_v1

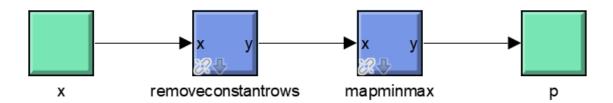
This block diagrams were generated by Simulink from the NN_relu function coding as the NN architecture below. However, this Verilog code reads 'double' value input.



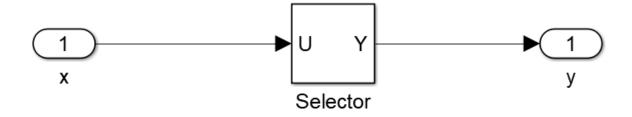
<u>Top – pattern recognition NN</u>



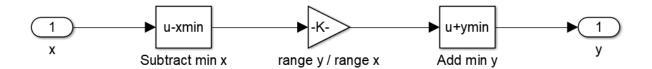
Process Input 1



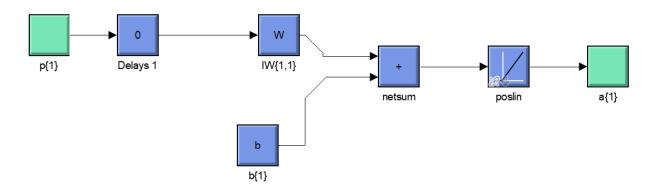
Remove constant row



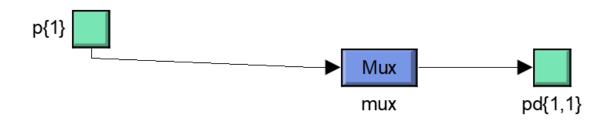
Mapminmax



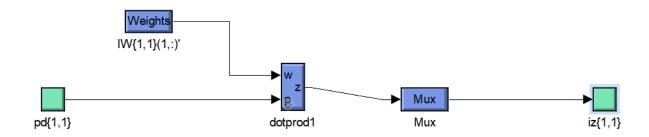
Layer 1



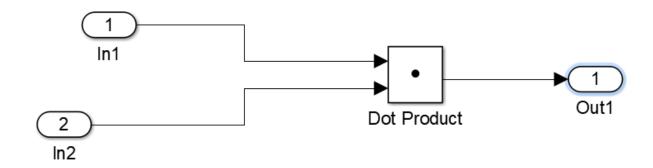
Delays 1



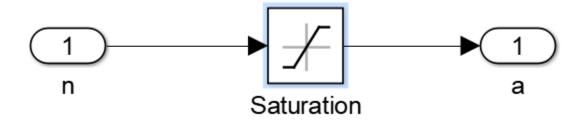
<u>IW{1,1}</u>



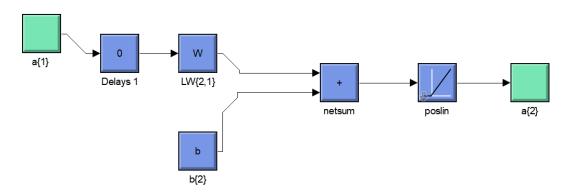
Dotprod1



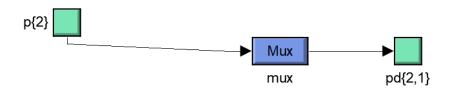
<u>Poslin</u>



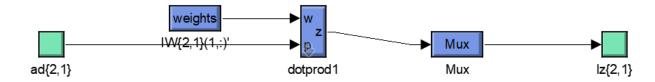
Layer 2



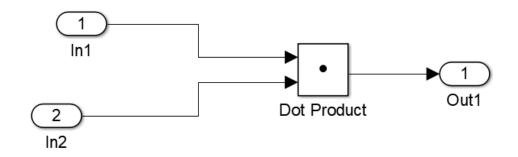
Delays 1



LW{2,1}



Dotprod1



<u>Poslin</u>



Process output 1

