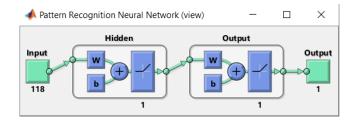
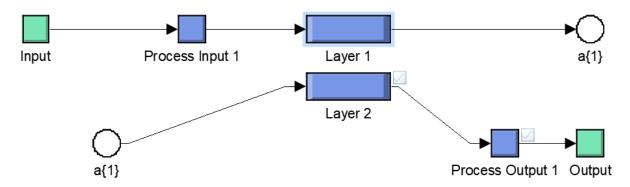
### 17/8/2020 – pattern recognition neural network\_v1

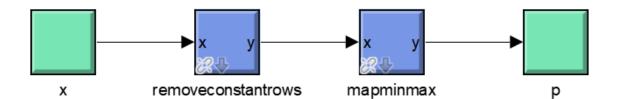
This block diagrams were generated by Simulink from the NN\_relu function coding as the NN architecture below. However, this Verilog code reads 'double' value input.



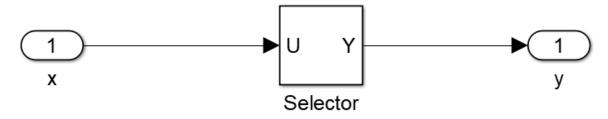
### <u>Top – pattern recognition NN</u>



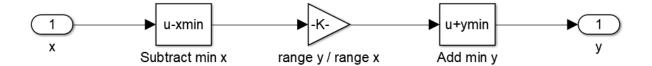
#### **Process Input 1**



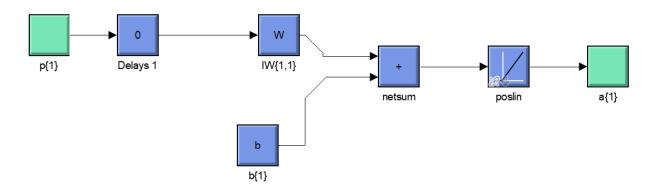
#### Remove constant row



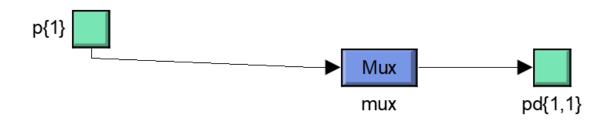
#### **Mapminmax**



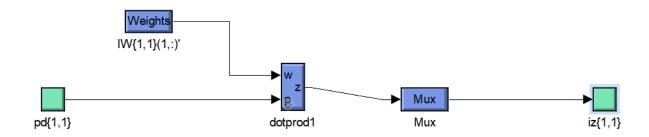
# Layer 1



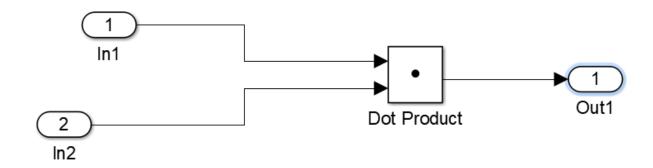
# Delays 1



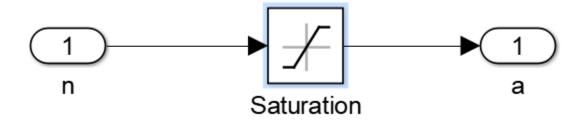
# <u>IW{1,1}</u>



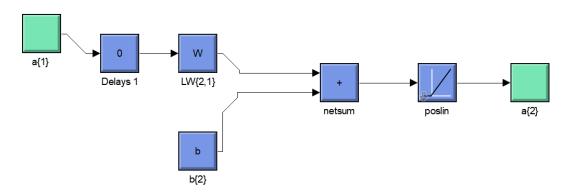
# Dotprod1



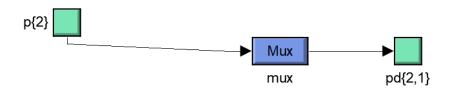
# <u>Poslin</u>



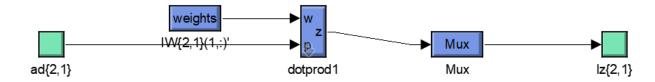
# Layer 2



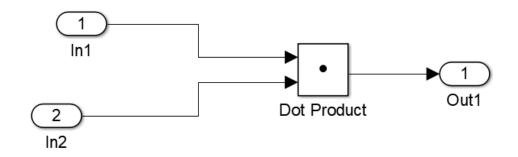
### Delays 1



## LW{2,1}



## Dotprod1



## <u>Poslin</u>



# Process output 1

