## **Artificial Neural Network**

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A biological neurone receives inputs from many sources, combines and presents them as a non-linear operation before releasing outputs as the final result. Inspired by the neural structures of human brain. Artificial Neural Network (ANN) is a computational model for process optimization that has an ability to recognize and reproduce the networks via training of various input-output systems that lead to the demonstration of complex systems. ANN models are highly simplified and designed to mimic the human learning processes by creating linkages between the process input and output data. It also 'learns' how to reproduce an output from the input factors without any prior knowledge of the relationship between them. ANN has incredible particular decision boundary capabilities, a capacity to adapt to different types and structures of data quickly. It can predict, analyse, associate and emulate the connectivity of biological neurones to solve complex problems in the same manner as the human brain. The attractiveness of ANN as empirical modelling schemes lies in its ability to extract with high accuracy; and irrespective of the degree of nonlinearity between independent and dependent variables.





