



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35

Accredited by NBA-AICTE and Accredited by NAAC – UGC with A+ Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



ARTIFICIAL INTELLIGENCE FOR ELECTRICAL ENGINEERING

TOPIC : **KNOWLEDGE REPRESENTATION OF ARTIFICIAL
NEURAL NETWORK**

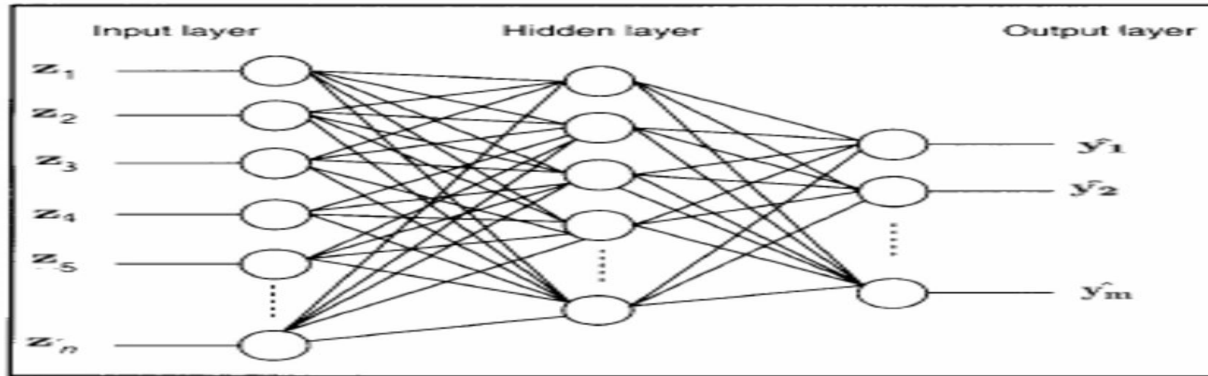




OVERVIEW

What is knowledge representation in neural network?

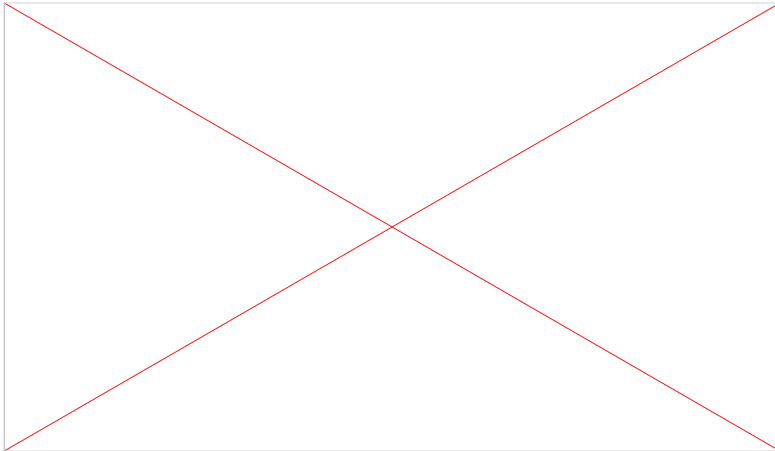
Instead of using explicit rules, the neural network model relies on a number of very simple neuron-like processing elements locally interacting through a set of unidirectional weighted connections. Knowledge is internally represented by the values of the weights and the topology of the connections.





ARCHITECTURE ARTIFICIAL NEURAL NETWORK

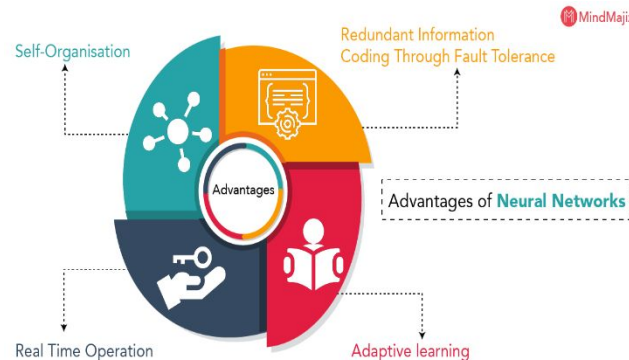
The Neural Network architecture is made of individual units called neurons that mimic the biological behavior of the brain.





ADVANTAGE OF ARTIFICIAL NEURAL NETWORK

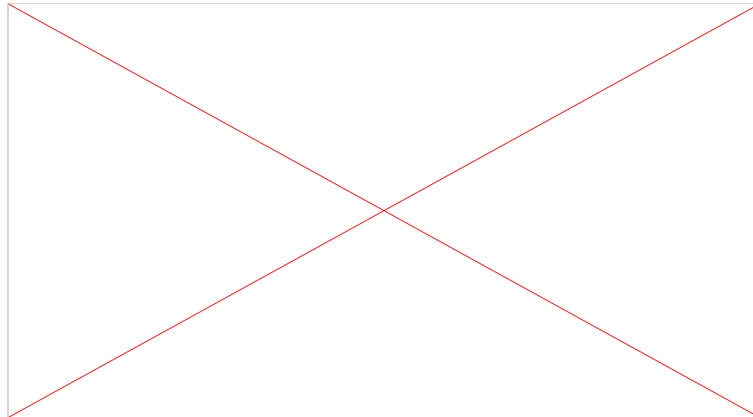
- Self-organization
- Real-Time Operation
- Adaptive learning
- Redundant Information Coding Through Fault Tolerance





DISADVANTAGE OF ARTIFICIAL NEURAL NETWORK

- Artificial Neural Networks require lots of computational power. ...
- Neural network models are hard to explain. ...
- Neural network training requires lots of data. ...
- Data preparation for neural network models needs careful attention





APPLICATIONS

Applications of ANN

There are many applications of ANN. Some of them are :

Medical

We can use it in detecting cancer cells and analysing the MRI images to give detailed results.





Forecast

We can use it in every field of business decisions like in finance and the stock market, in economic and monetary policy.

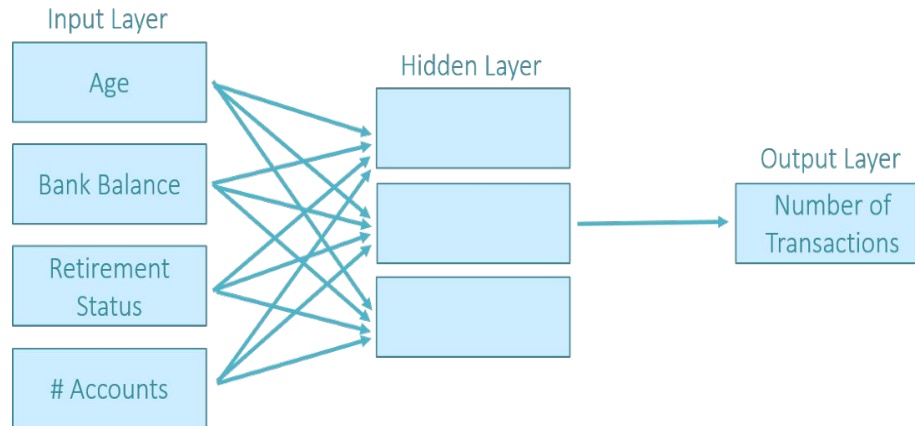
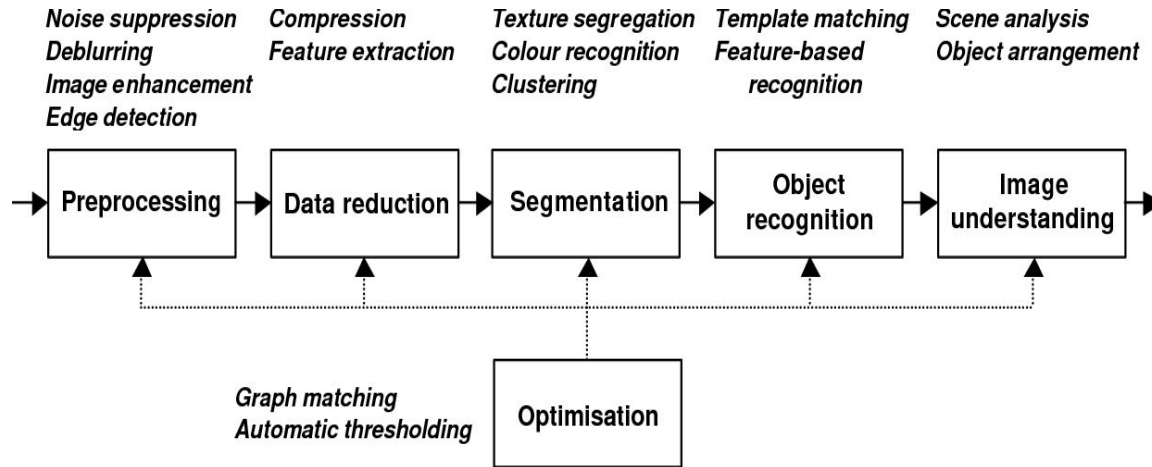




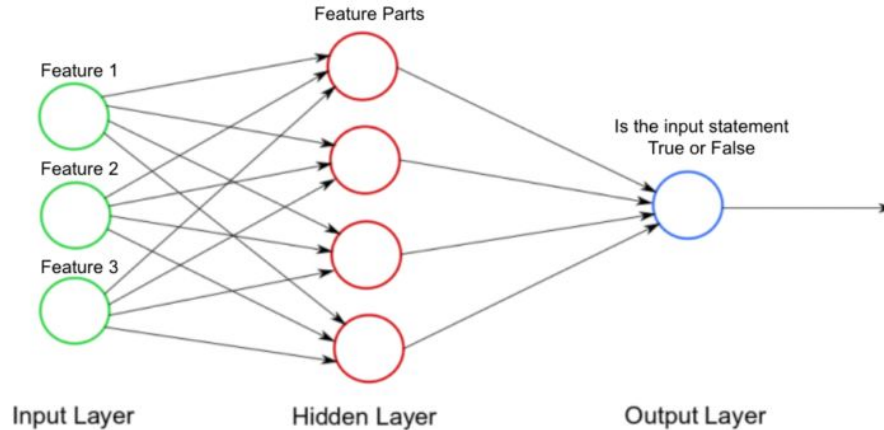
Image Processing

We can use satellite imagery processing for agricultural and defense use





RECAP....



...THANK YOU