Artificial Neural Network

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ARTIFICIAL NEURAL NETWORK

Class-3
Neural Network

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Artifical Neural Network

Content

- Why Neural Network?
- Types of Neuron Models
- Applications

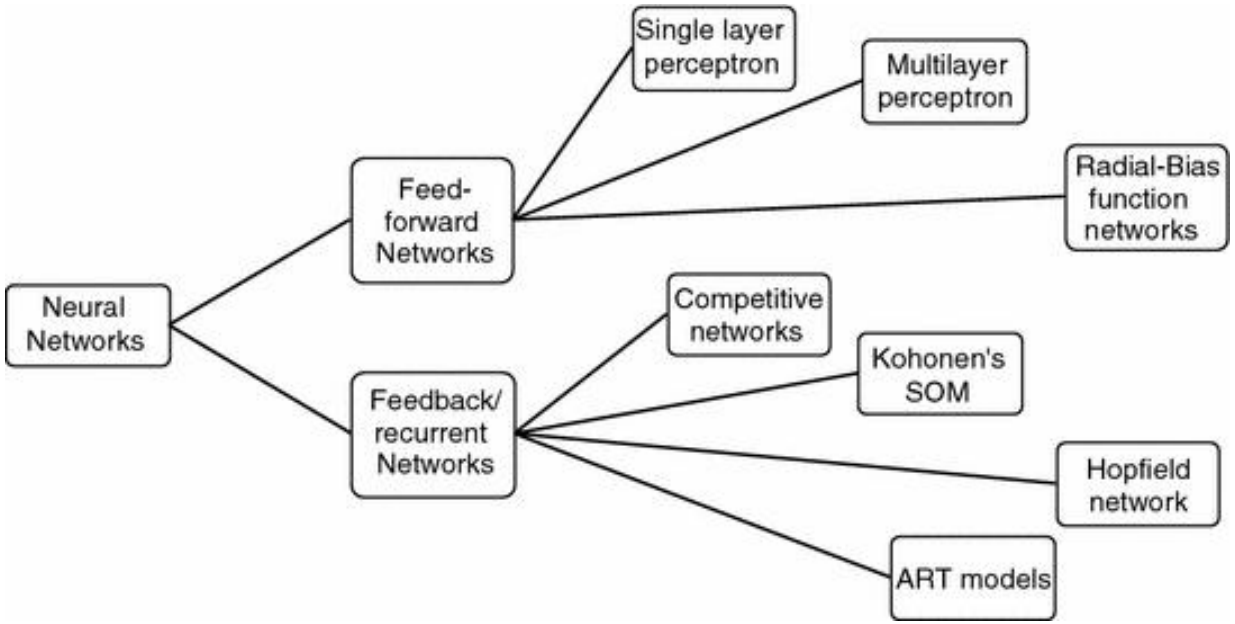
Introduction

Why ANN?

- The power of neural network lies in its ability to learn and generalize, and its massive parallel structure.
- The following are some of the useful properties of neural networks:
  - Input-output mapping
  - Non-linearity
  - Adaptivity
  - Fault tolerance
  - VLSI implementability
  - Uniformity of analysis and design
  - Neurobiological analogy

Introduction

Types of neuron model



Introduction

Applications:

Followings are some of the areas, where ANN is being used. It suggests that ANN has an interdisciplinary approach in its development and applications.

Speech Recognition

- Multilayer networks
- Multilayer networks with recurrent connections
- Kohonen self-organizing feature map

Introduction

Applications:

Character Recognition:

- Multilayer neural networks such as Backpropagation neural networks.
- Neocognitron

Signature Verification Application

Human Face Recognition

Introduction

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Signature Verification Application

Human Face Recognition

References

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THANK YOU

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