

Download Neural Networks For Intelligent Signal Processing

An artificial neural network is a network of simple elements called artificial neurons, which receive input, change their internal state (activation) according to that input, and produce output depending on the input and activation. Pre- and Post-Processing. All neural networks take numeric input and produce numeric output. The transfer function of a unit is typically chosen so that it can accept input in any range, and produces output in a strictly limited range (it has a squashing effect). An autoencoder is one type of unsupervised neural networks with three layers, and the output target of the autoencoder is the input data. As depicted in Fig. 1, the autoencoder comprises two parts, i.e., encoder network and decoder network. A recurrent neural network (RNN) is a class of artificial neural network where connections between nodes form a directed graph along a temporal sequence.