

Download Cellular Neural Networks And Image 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.. An artificial neuron mimics the working of a biophysical neuron with inputs and outputs, but is not a biological neuron model. In recent years, deep artificial neural networks (including recurrent ones) have won numerous contests in pattern recognition and machine learning. A connectome (/ k ? ? n ? k t o ? m /) is a comprehensive map of neural connections in the brain, and may be thought of as its "wiring diagram". More broadly, a connectome would include the mapping of all neural connections within an organism's nervous system. Neuroplasticity, capacity of neurons and neural networks in the brain to change their connections and behaviour in response to new information, sensory stimulation, development, damage, or dysfunction. Although neural networks also exhibit modularity and carry out specific functions, they retain the capacity to deviate from their usual functions and to reorganize themselves.