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"Design of an artificial synapse to mimic nose"

An electronic device that can mimic the brain-like functionalities under the action of input stimuli (pulse) is known as artificial synapse and considered as a backbone for neuromorphic computing. Synapses are the meeting points of axons and dendrites that allow neurons in the human brain to send and receive nerve signals; there are known to be hundreds of trillions of synapses in the human brain. Our aim is to develop a non-volatile data storage device which should enable us to reduce circuit connection complexity and power consumption by orders of magnitude compared to data storage methods based on digital signals using zeros and ones, such as volatile CMOS memory. Here we propose to work on a gas sensing device to mimic nose-like functionality.

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