AANN: Artificial Analog Neural Network

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http://www.art-rash.com/pixelform/installation/AANN

Artificial Analog Neural Network (AANN) is an interactive, handmade electronic sculpture that responds to environmental stimuli in a display of light and sound. AANN's structure is a skeletal point-to-point soldered network of analog electronic components designed to approximate biological neural network behavior. The sculpture is a 45 neuron network whose form was influenced in part by multi-layered network models used in neural computing, and by the Fibonacci based branching of natural systems. During the design process, studies of early marine and plant life became the primary inspiration for AANN's final form. AANN is situated at the intersection of art and science, making physical the abstract processes used by computer scientists in pattern recognition. As guests speak or cast shadows on AANN the abrupt changes in sound and light cause the network to react by producing a series of swoops and chirps, and by illuminating LEDs on active neurons; sounds are converted into chirps and twitters, made visual by the LEDs indicating activity in the network. What is heard and seen are the actual pulse streams being transmitted from one neuron to the next throughout the entire network.