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(54) Title: FEATURE RECOGNITION WITH OSCILLATING NEURAL NETWORK

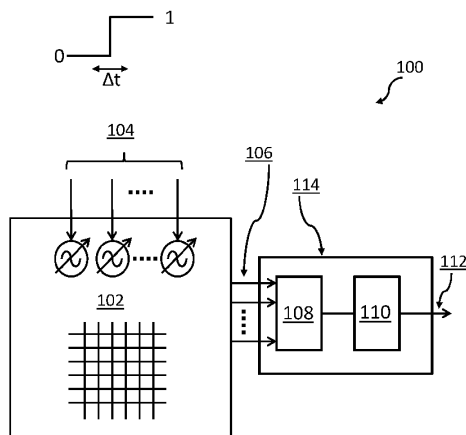


FIG. 1

(57) Abstract: An electronic circuit for enabling an efficient use of an oscillating neural network for feature recognition comprises a network of coupled voltage-controlled oscillators, wherein each of the voltage-controlled oscillators is adapted for receiving an edge input signal which is phase-shifted by a fraction of a period length of the voltage-controlled oscillators according to a signal strength of an analog input signal allotted to a respective one of the voltage-controlled oscillators, and an active output circuit. The active output circuit includes input terminals connected to selected ones of the voltage-controlled oscillators, an adder portion for adding input signals present at the input terminals, and a non-linear amplifier, an input line of which is connected to an output line of the adder portion, thereby an efficient use of an oscillating neural network.

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