

Self-Organization of Associative Database and Its Applications

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Abstract:

An efficient method of self-organizing associative databases is proposed together with applications to robot eyesight systems. The proposed databases can associate any input with some output. In the first half part of discussion, an algorithm of self-organization is proposed. From an aspect of hardware, it produces a new style of neural network. In the latter half part, an applicability to handwritten letter recognition and that to an autonomous mobile robot system are demonstrated.