

Hybrid growing self-organizing map

Libor Horák

Abstract: Software with adaptation ability find their application in many areas for example in control systems, game industry, simulations or in some prediction systems. The artificial intelligence neural networks can be a good base for this type of software. The hybrid growing self-organizing map architecture introduced in this article can adapt for new situations. It also allows an additional online training without a catastrophic forgetting. These abilities are achieved combining the growing self-organizing map and two layer feed-forward network.

Keywords: hybrid growing self-organizing map, artificial intelligence, catastrophic forgetting, neural networks, plasticity-stability dilemma, classification

JEL Classification: C45