FORMING NEURAL NETWORKS BY MEANS OF ASSEMBLER ENCODING – PRELIMINARY REPORT

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ABSTRACT—This paper presents a new neural network encoding method called Assembler Encoding. The method was tentatively tested in the predator-prey problem. In the experiments, neural networks created by means Assembler Encoding, were used to control predators whose task was to capture a fast moving prey behaving according to a simple strategy. To compare Assembler Encoding with another neural network encoding method, in the experiments, a co-evolutionary version of simple connectivity matrix was also applied. The results of the experiments are included in the final part of the paper.

Key Words: evolutionary neural networks