

MODELING THE ENERGY EXCHANGE OF AGENTS OF A NEUROCOGNITIVE INTELLECTUAL SYSTEM

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The article describes a model of energy relationships between elements of a multiagent neurocognitive intellectual system, used as a target function that ensures the work of individual agents. A model for calculating the energy of each agent is proposed taking into account the energy obtained as a result of work, the costs of completing tasks, and the costs of ensuring one's own activity. In addition, an algorithm for making an agent's decision to complete a task is presented. The algorithm takes into account the ability to complete the task, the benefits of the task and the degree of interest of the agent task. In addition, the model takes into account the possibility of specialization of agents on different types of tasks and the possibility of distributing one task between several agents. Application of this model will allow setting the target function for agents in a multi-agent system, regardless of their specialization.

Keywords: multi-agent systems, energy exchange, modeling.

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