Neuronet search of special points for computer vision system when determining mobile platform movements

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The main purpose of the article is to present a computer vision system model for solving the problem of mobile robot navigation in natural environment. We consider the possibilities of using different ways of searching certain points and set the requirements to onboard systems. As the main approach we offer to use neuronet models of information processing, and show advantages and disadvantages of this approach. The article examines Hopfild networks abilities and networks on the basis of radial neurons. We carried out modeling and determined the most effective networks models in terms of accuracy and speed. The received model is checked on real examples. We studied possible methods of certain points search acceleration and defined the ways of implementing the proposed approach within onboard systems of computer vision system.

Keywords: *neuron networks, object recognition, computer vision system*

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