

# Automated road marking recognition system

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## Abstract

© Published under licence by IOP Publishing Ltd. Development of the automated road marking recognition systems in existing and future vehicles control systems is an urgent task. One way to implement such systems is the use of neural networks. To test the possibility of using neural network software has been developed with the use of a single-layer perceptron. The resulting system based on neural network has successfully coped with the task both when driving in the daytime and at night.

<http://dx.doi.org/10.1088/1757-899X/240/1/012070>

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## References

- [1] Ziyatdinov R R, Mukhametzyanov V R and Nabiullina G I 2015 Application Of Neural Networks For The Diagnosis Of Depth Sucker Rod Pumps International Journal of Applied Engineering Research (IJAER) 10
- [2] Zhuravlev Y I 1978 On the algebraic approach to solving the problems of recognition and classification Problems of Cybernetics 33 5-68
- [3] Uosserman F 1992 Neurocomputing equipment: Theory and Practice (M.: Mir) Trans. from English
- [4] Jones M T 2011 Programming Artificial Intelligence in applications (Osipov AI - M.: DMK Press) 312 Trans. from English
- [5] Devyatkov V V 2001 Artificial Intelligence Systems: Proc. manual for schools (M.: Publishing House of the MSTU Bauman) 352
- [6] Luger D F 2003 Artificial Intelligence: Strategies and methods for solving complex problems 4 (M.: Williams" Publishing House) Trans. from English
- [7] Russell S and Norvig P 2006 Artificial Intelligence: A Modern Approach 2 ("Williams" Publishing House) 1408 Trans. From English
- [8] Bradski G and Kaehler A 2008 Learning OpenCV. Computer Vision with the OpenCV Library (Publisher: O'Reilly Media)