

# **Programming autonomous vehicle control**

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**Abstract:** In the context of the growing development of automation technology and smart vehicles, this topic focuses on researching and implementing control programming solutions for self-driving cars. The main objective is to build an artificial intelligence system capable of handling complex situations on the vehicle's path, thereby ensuring safety and efficiency in traffic. The research method applies both machine learning to process video and sensor data combined with an experimental approach to test the system on a simulated vehicle. This topic is expected to contribute an important step forward in the development of self-driving car systems, helping to reduce traffic accidents and improve the quality of transportation services.

**Keywords:** Self-driving cars, control programming, artificial intelligence, machine learning, traffic safety