# Trend Analysis of Autonomous Vehicles Using Artificial Intelligence

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#### Abstract

This paper will focus on artificial intelligence used for judgment during cognition-judgment-control of autonomous vehicles. An autonomous vehicle is a vehicle that can drive itself without the intervention of a driver or passengers. Self-driving cars are mainly conducted in the form of research to improve driving safety and driver convenience. Autonomous vehicle technology applies the degree of autonomous driving to level 0 automation, Level 1 Driver Assistance, Level 2 Partial Automation, Level 3 Conditional Automation, and Level 4 Advanced. The development proceeds in stages of High Automation and 5 Stages of Full Automation. The Society of Automotive Engineers (SAE) ranges from level 0 to level 5, and level 3 is the best technology for autonomous driving technology installed in currently sold vehicles. This is just a state-of-the-art driver assistance system that allows autonomous driving in a certain section and requires the driver to keep an eye on the surroundings to prepare for unexpected situations.

### Keywords

Artificial Intelligence, Machine learning, autonomous vehicles, AI and trend analysis,

## **Biography**

Lee Ji Yun is student in MY PAUL SCHOOL. She is interested in artificial intelligence, deep learning, cryptography, robots, mechanical engineering, block chains, drones, autonomous vehicles, etc., and is conducting related research.

**Shin Dong Ho** is Professor and Teacher in MY PAUL SCHOOL. He obtained his Ph.D in semiconductor physics in 2000. He is interested in artificial intelligence, deep learning, cryptography, robots, block chains, drones, autonomous vehicles, the Internet of Things, metaverse, virtual reality, and space science, and is conducting related research.