

Application of YOLO deep learning model in smart parking lot management problem

Hoang Thi Huong

Abstract: In the context of increasingly rapid urbanization and the urgent shortage of parking spaces, this topic focuses on applying the You Only Look Once (YOLO) deep learning model to enhance the efficiency of smart parking management. The objective of the research is to build an automatic vehicle recognition and classification system to optimize the process of searching, reserving, and navigating parking spaces. The implementation method includes training and deploying the YOLO model on real-world parking lot data. The expected results bring significant improvements in smart parking management, contributing to solving urban traffic problems.

Keywords: YOLO, Parking lot management, Deep learning, Automatic recognition, Intelligent system