

## The Road Ahead: A Review of AI Trends and Evolution in the Automotive Industry

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### **Abstract:**

Artificial intelligence is responsible for reshaping the world of business today, transforming opportunities worldwide and posing various types of challenges. In our paper we conduct a comprehensive literature review to illustrate the main trends in academic research on artificial intelligence and the automotive industry, drawing upon a generous dataset of peer-reviewed articles extracted from the Web of Science database. The search was performed in January 2025 and resulted in 2055 papers, including conference proceedings. The paper's objective is to perform a detailed analysis that highlights the key trajectories of evolution in academic research surrounding artificial intelligence with focus on the automotive industry context and identify critical gaps in knowledge, as well as prospective future research directions. These are relevant both for academic endeavors, but also for industry policy makers and practitioners. To attain this, we performed an analysis, employing Vos Viewer software. Results reveal several clear research evolution paths and the emerging trends on AI related research based on which we developed valuable insights and future directions and interpretations.

### **Keywords:**

artificial intelligence, AI, automotive industry, literature review.