

AN OVERVIEW OF THE SCIENTIFIC PRODUCTION ON THE APPLICATION OF AI IN PUBLIC TRANSPORT

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In recent years, public transport applications based on artificial intelligence (AI) have, among others, decreased the number of accidents (Khayyam et al., 2020), increased vehicle safety (Cunneen, Mullins, & Murphy, 2019), reduced costs (Agrawal, Gans & Goldfarb, 2017) and fuel consumption (Machin et al., 2018), created new employment (Makridakis, 2017) and business (Soni et al., 2020; Yigitcanlar et al., 2020), and reduce emissions (Ahmed et al., 2021). This research aims to provide an overview of the scientific production on the application of AI in public transport, its thematic evolution, and emerging research niches and trends, to serve as a reference for future work by researchers and practitioners.

To this end, a bibliometric analysis of all scientific production in the two major international databases, Web of Science and Scopus, was carried out. The process started

with an advanced search with the following search strategy: TS= "public transport*" OR "mass transport*" OR "urban transport*" AND "artificial intelligence" OR "AI" OR autonomous AND self-driving. After this, the retrieved documents were downloaded and the process of elimination of duplicates, normalization, and absence of thematic relevance was carried out for subsequent analysis in SciMAT and VosViewer.

The present analysis comprises the most extensive study on the application of AI in public transport. The results show that AI applications are more prevalent in private vehicles than in public transport. Hence, future work has major challenges to address in order to delve into thematic niches within each transportation system.

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