

MAIN CONTRIBUTIONS FROM A SYSTEMATIC LITERATURE REVIEW ON PUBLIC TRANSPORT TIMETABLING SYNCHRONIZATION

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Summary: Public transport planning involves several sequential tasks at the strategic, tactical, and operational levels. Within the tactical stage, the main activities include frequency setting and timetabling. Focusing on the latter, there are various approaches to address this problem, where synchronization plays an important role by considering the interconnection of several routes in a transportation network. The ultimate goal of timetabling synchronization is to contribute to the achievement of seamless travel, leading to an enhanced public transport system that empowers society. This literature review integrates findings and perspectives of many different applications of synchronization to obtain timetables in public transport. There has been a growing number of publications in the field, as scholars become increasingly aware of the importance of improving service connectivity in modern smart cities. As such, this work addresses a research gap by focusing on the developments of recent studies, providing an updated review of a key topic. A systematic review is presented, based on the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) methodology, taking into account previous literature in a 5-year time interval on public transport timetabling synchronization. This review compares the main results across the literature, consolidates insights, and highlights future research opportunities.