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### Evaluation of Maintenance Management for Transportation Systems in İstanbul: A Detailed Literature Analysis

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#### Abstract

The preliminary detection of failures, reliability calculations, and the decision of maintenance policy are of great importance for the PTS. The main aim is to analyze maintenance management for PTS of İstanbul. Thus, it was researched whether there was a gap in this area and it was investigated from what dimensions the researchers dealt with this topics.

In parallel with the increasing urbanization and rapidly rising population in recent years, transportation problems also arise. Investments for public transport system (PTS) are very important to solve these problems. The step to be taken in this regard is not only to introduce new vehicles, alternatives or routes to be added to PTS but to more efficiently manage existing maintenance and repair of existing vehicles to improve service quality. The vehicles used in PTS are exposed to wear and tear due to use and age. This causes some quality problems, the dissatisfaction of passengers, increasing costs, and even the situations that can put passengers' lives at risk. Therefore, some maintenance strategies should be improved to avoid system unreliability, reduces maintenance costs, and increases system reliability.

In this paper, the post-graduate dissertations about the measures to be taken against the failures in the public transport network of Metrobus in İstanbul have been analyzed. All these studies that have been prepared in particular about Metrobus system have been examined and it has whether this topic has been taken up before in terms of maintenance.

This paper is the first literature review conducted on behalf of maintenance management of BRT system among public transportation studies applied for İstanbul. We believe that this paper will be a guide for the researchers who wants to work in the maintenance planning of transportation systems.

*Keywords:*

*Public Transport System; Maintenance Management; Reliability; Maintenance Policy*

