Unified Public Transportation System for Mumbai Using Radio Frequency Identification

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Abstract : The paper proposes revamping the public transportation system in Mumbai with the use of Radio Frequency Identification (RFID) technology in order to provide better integration and compatibility across various modes of transport. In Mumbai, mass transport system suffers from poor inter-compatible ticketing system, subpar money collection techniques, and lack of planning for optimum utilization of resources. Development of suburbs and growth in population will result in growing demand for mass transportation networks. Hence, the growing demand for the already overburdened public transportation system is only going to worsen the scenario. Thus, a superior system is essential in order to regulate, manage and supervise future transportation needs. The proposed RFID based system integrates Mumbai Suburban Railway, BEST (Brihanmumbai Electric Supply and Transport Undertaking transport wing) Bus, Mumbai Monorail and Mumbai Metro systems into a Unified Public Transportation System (UPTS). The UTPS takes into account various drawbacks of the present day system and offers solution, suitable for the modern age Mumbai.

Keywords : urbanization, transportation, RFID, Mumbai, public transportation, smart city.