IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 4, January 2026
Impact Factor: 7.67

# Real-Time Public Transport Tracking & Smart Crowd Controlling

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**Abstract:** *Public transportation plays an important role in our day-to-day life, especially government-operated bus services. However, traditional systems lack real-time visibility, efficient crowd management, and safety mechanisms, leading to increased waiting time, overcrowding, and delayed emergency response. This paper presents a Real-Time Public Transport Tracking System developed for government buses using GPS, IoT sensors, mobile applications, and web-based administration. The system consists of two mobile applications (User App and Driver App) and two web platforms (Admin Panel and Officer Portal). Real-time tracking is enabled through GPS, while IR sensors are used for passenger counting and crowd control. An emergency SOS feature enhances safety by enabling instant alerts to authorities. The proposed system improves passenger convenience, operational transparency, and transport safety, making it suitable for smart city applications*

**Keywords:** Real-time tracking, Public transport, GPS, IR Sensors


DOI: 10.48175/IJARSCT-31022