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AI-Powered Transport Booking and Logistics Management System

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Abstract: *The rapid advancement of Artificial Intelligence (AI) has paved the way for transformative solutions in the transportation and logistics industry. This paper presents the design and implementation of an **AI-powered transport Booking and Logistics Management System**, developed using Python. The proposed system aims to address critical challenges such as inefficient booking processes, poor route optimization, lack of real-time tracking, and high operational costs. By integrating AI algorithms with GPS and IoT technologies, the system offers intelligent route planning, automated scheduling, fleet management, and 24/7 customer support through AI chatbots. The platform ensures secure online transactions via payment gateway integration and utilizes predictive analytics for demand forecasting and resource optimization. Targeting transport service providers, logistics operators, and end-users, this solution enhances efficiency, transparency, and decision-making capabilities in logistics operations. This paper highlights the system architecture, core functionalities, technology stack, and both the benefits and limitations encountered during development. The system demonstrates how AI-driven automation can revolutionize modern transport and logistics management, offering a scalable and intelligent solution for the digital era.*

Keywords: Logistics, Transport Management, Online Freight Booking, Digital Marketplace, Goods Transportation, Web-Based Platform, Truck & Lorry Services, Supply Chain, Real-Time Tracking, Secure Payment System

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