

IOT Based Cashless Petrol Pump

Reeta Shaktivel¹, Pritesh Surve², Shivani Raorane³, Vaibhav Ghegad⁴

Faculty, Department of Electronics & Telecommunication¹

Students, Department of Electronics & Telecommunication^{2,3,4}

KC College of Engineering, Thane, India

Abstract: *The integration of IoT technology with petrol pumps has revolutionized the fueling industry, introducing efficient, secure, and convenient payment methods. This abstract presents an IoT-based cashless petrol pump system utilizing RFID cards for streamlined transactions. Customers authenticate themselves by tapping their RFID cards on readers connected to a central IoT platform, which verifies and authorizes transactions in real-time. The system supports multiple payment methods linked to RFID cards, ensuring flexibility for users. Security measures like data encryption and robust authentication protocols safeguard transactions. The IoT infrastructure enables remote monitoring and management of petrol pumps, facilitating predictive maintenance and targeted marketing strategies. Overall, this system offers a seamless and secure fueling experience, aligning with digital transformation trends in the automotive industry.*

Keywords: RFID, IoT, Fueling, Petrol pump, Cashless

REFERENCES

- [1]. IoT-Based Smart Petrol Pump Automation System P. B. Patil, et al. 2017
- [2]. Design and Implementation of IoT Based Smart Petrol Pump System D. S. Patil, et al. 2019
- [3]. Smart Petrol Pump System using IoT S. S. Mane, et al. 2020
- [4]. IoT Based Smart Petrol Pump Management System A. V. Shinde, et al. 2021