



Lecture Notes in Networks and Systems 1455

Nibaran Das ·
Esra Kahya Ozyirmidokuz ·
Swagata Mandal · Lale Özbakır ·
Debotosh Bhattacharjee *Editors*

Proceedings of International Conference on Data, Electronics and Computing

ICDEC 2024, Volume 1

 Springer

Transportation Payment System using IOT

Koushik Dutta¹[0000-0001-8346-6890], Akash Roy², Ishika Ghosh², Anusmita Hait², Nilanjan Bhattacharya², Soumyendu Sekhar Bandyopadhyay³

¹Department of Information Technology, Institute of Engineering and Management, Kolkata 700091, India

²Department of Computer Science and Engineering (IOT), Institute of Engineering and Management, Kolkata, India

³Department of Information Technology, Institute of Engineering & Management, University of Engineering & Management, Kolkata 700091, India

koushik.dutta@iem.edu.in

akash.roy2021@iem.edu.in

ishika.ghosh2021@iem.edu.in

anusmita.hait2021@iem.edu.in

nilanjan.bhattacharya2021@iem.edu.in

soumyabane@gmail.com

Abstract. This research paper introduces a pioneering IoT-enabled transportation payment system that utilizes smart card technology to streamline and integrate payment processes across various transportation modes. Addressing the limitations of traditional payment methods, the proposed solution offers a seamless, secure, and versatile payment experience through a single card. Key features include instant payment processing, universal acceptance across different transport services, robust security measures, and real-time tracking of travel and expenses. The system also provides comprehensive services such as effortless travel payments, enhanced security protocols, user-friendly account management, and future-ready technology. This study underscores the significant impact of this innovative solution on the future of transportation payments, presenting it as a transformative advancement that promises to redefine how individuals pay for transportation services globally. The research highlights the potential for further enhancements, including integration with other IoT devices, emphasizing the system's adaptability and commitment to meeting the evolving needs of commuters and travelers worldwide.

Keywords: IoT-enabled transportation, Smart card technology, Unified payment system, RFID scanner, Public transport.