# Submission Summary

**Conference Name**
2nd INTERNATIONAL CONFERENCE ON NEW FRONTIERS IN COMMUNICATION, AUTOMATION, MANAGEMENT AND SECURITY 2025

**Paper ID**
1249

**Paper Title**
Domestic waste management

**Abstract**
Domestic waste management is a growing concern due to the rapid increase in population and urbanization. Effective waste management is critical for environmental sustainability and public health. This paper proposes a smart domestic waste management system that utilizes sensor technologies, Internet of Things (IoT), and machine learning to improve the efficiency of waste segregation, collection, and disposal. The system integrates smart bins equipped with sensors to detect the type and level of waste, enabling real-time monitoring and efficient scheduling of waste collection. Machine learning algorithms are employed to analyse waste patterns and optimize operations. This project aims to reduce human intervention, promote waste segregation at the source, and encourage environmentally responsible behaviour among citizens. The proposed system ensures that waste is categorized and managed efficiently, reducing the burden on landfills and supporting recycling initiatives.
Keywords: Smart Bin, Waste Segregation, IoT, Sensors, Waste Monitoring, Machine Learning

**Created**
05/05/2025, 19:21:05

**Last Modified**
05/05/2025, 19:21:05

**Authors**
**Jahnavi Kolimi** (Presidency University) <jahnavikolimi@gmail.com>

**Primary Subject Area**

• AI and Machine Learning • Business Intelligence • Technical Trends • Ambient Technology • Communication

**Submission Files**

Research_paper_DWM.pdf (150.4 Kb, 05/05/2025, 19:21:00)