## **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 2, August 2023

## Novel Mobility Prediction-Based Autonomous Energy-Aware Framework using ML and RL Techniques

G. Rajanikar<sup>1</sup> and Dr. Anshul Mishra<sup>2</sup>

Research Scholar, Department of Computer Science and Engineering<sup>1</sup>
Research Supervisor, Department of Computer Science and Engineering<sup>2</sup>
NIILM University, Kaithal, Haryana, India

**Abstract:** The approach delivers two separate results through an innovated energy-conscious framework which conducts RL-based Q-learning analysis for energy conservation with CO2 measurements followed by ML-based KNN algorithm application with distance metrics for classification accuracy. A three-fold benchmark evaluates the first part of the results using NS and ES and Greedy approach and the second part verifies its performance through KNN alongside SVM, DA, NB, DT, and ANN.

DOI: 10.48175/568

Keywords: KNN, SVM, ANN

