## IJARSCT

International Journal of Advanced Research in Science, Communication and Technology



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

Volume 5, Issue 4, April 2025



## Role of Embedded System for Sustainable Development Goals: Agriculture, Energy and Waste Management Systems in Indian Perspective

Ritu Arya<sup>1</sup> and Ashish Verma<sup>2</sup>

Department of Physics<sup>1,2</sup> Dr. Harisingh Gour Vishwavidyalaya, Sagar, (M.P.), India

**Abstract:** Integrating embedded systems<sup>1</sup> into agriculture, energy, and waste management plays a pivotal role in achieving Sustainable Development Goals<sup>2</sup> (SDGs) in India. This paper explores the design and implementation of embedded solutions that optimize resource utilization, enhance efficiency, and promote sustainability. The focus is on leveraging  $IoT^3$ ,  $AI^4$ , and automation to develop cost-effective and scalable systems<sup>5</sup> suitable for the Indian context.

Keywords: Embedded systems, sustainable development goals, IoT, AI, scalable systems



