

# Recycling Plastic Waste Management with Using Automated Robot's

**Prof. Tambe. K. S., Kaji Shahid Harunrashid, Avhad Chaitali Ramnath, Avhad Samruddhi Vishnu**  
Third Year, Diploma in Electronics and Telecommunication,  
Amrutvahini Polytechnic, Sangamner, India

**Abstract:** *India currently produces 188,000 tons of waste daily, with plastic waste making up approximately 9% to 12% of municipal solid waste, posing a toxic threat to the environment. The inability of plastic to biodegrade has created significant challenges for both urban and rural areas across the country. To tackle this growing problem, both public and private sector research initiatives have been launched. This study focuses on two popular methods that incorporate plastic waste in the construction of rural roads. It explores the implementation of these methods and the steps taken to enhance their effectiveness. Additionally, the study offers recommendations for other states to consider adopting these approaches for their own rural road development projects, using plastic waste as a sustainable material.*

**Keywords:** plastic waste, energy management, Recycling, robot, road, solar, raw materials, environment

