BMS College of Engineering, Bengaluru- 19

(Autonomous Institute, Affiliated to VTU)

Department of Computer Science and Engineering (Data Science)

Course: Full Stack Web Development

Faculty: Prof. Lavanya Naik

Title: eCycle: A Sustainable Solution for E-Waste

Project Overview:

eCycle is a comprehensive platform designed to address the pressing issue of electronic waste (e-waste) disposal. By connecting users with local e-waste collection services and recycling facilities, eCycle facilitates responsible disposal of electronic devices and promotes environmental conservation.

Abstract

The improper disposal of electronic waste (e-waste) poses significant environmental and health risks. To mitigate these issues, eCycle provides a user-friendly platform that connects individuals and businesses with local e-waste collection services and recycling facilities. Through augmented reality (AR) education, a reward system, and a tracking system, eCycle promotes responsible e-waste disposal and contributes to a more sustainable future.

Purpose and Significance

The primary purpose of eCycle is to create a sustainable solution for e-waste management. By providing a convenient and accessible platform, eCycle aims to:

- Reduce e-waste disposal in landfills and improper dumping.
- Promote responsible e-waste recycling practices.
- Increase awareness of the environmental and health risks associated with improper e-waste disposal.
- Foster a sense of community involvement and environmental stewardship.

Societal Concerns Addressed

eCycle addresses several critical societal concerns related to e-waste:

- **Environmental Pollution:** Improper disposal of e-waste contributes to pollution through the release of hazardous substances into the environment. eCycle promotes responsible disposal, reducing the negative impact on ecosystems.
- **Resource Depletion:** E-waste contains valuable materials that can be recovered and reused. eCycle supports recycling efforts, conserving natural resources and reducing the need for new extraction.
- **Health Risks:** Exposure to hazardous materials in e-waste can pose serious health risks. eCycle promotes safe disposal practices, protecting public health.
- **Digital Divide:** E-waste often contains valuable electronic components that can be refurbished and donated to those in need. eCycle supports initiatives to bridge the digital divide and ensure equitable access to technology.

By addressing these societal concerns, eCycle contributes to a more sustainable and equitable future.

Team Members:

Sushant Deo (1BM23CD062)

Suraj B (1BM23CD061)

Rahul Sougaijam (1BM23CD048)