



### GUEST LECTURE REPORT ON Productive Use of E-Waste & Recycling Process

<b>Semester</b>	7 <sup>th</sup> Semester
<b>Event Type</b>	Guest Lecture
<b>Event Name</b>	Productive Use of E- Waste & recycling Process
<b>Date/Duration</b>	25 <sup>th</sup> March 2025 10: 30 AM to 12: 30 PM
<b>Guest Speaker</b>	Cdr. Sanjay R Jangam (Retd.) Founder, Ewa Upcycles Pvt Ltd. Bengaluru
<b>No. of Students</b>	57
<b>Online link/Offline</b>	Offline

#### Introduction:

The Guest Lecture on Productive Use of E- Waste & recycling Process was organized by Department of AI&ML, K.S.Institute of Technology on 25th March 2025 aims to know more about practical process of E Waste recycling. The Guest speaker is Cdr. Sanjay R Jangam(Retd.) Founder, EWA Upcycles Pvt Ltd, Bangalore.

#### About Resource Person:

**Commander Sanjay R Jangam (Retd)**, a Veteran of the Indian Navy has close to thirty years' service in Indian Navy and is specialized in Gas Turbines, HP Air compressors, HVAC Plants and various mechanical equipment onboard Indian warships. In GTRE (DRDO Lab) he was associated with design of the Marine Gas Turbine for Navy. Commander Sanjay Jangam was also an instructor in the Navy's Fire Fighting and Damage Control School. He believes in physical fitness and was a trained Scuba Diver in the Indian Navy. He is presently a practicing entrepreneur and Founder of Ewa Upcyclers Pvt Ltd ([www.ewa-eco.com](http://www.ewa-eco.com)) and has developed the technology to upcycle 'Waste of E-Waste'. He is also designing equipment for the armed forces.

#### About EWA:

EWA is an acronym for Electronics Waste. It also means 'Continued Life' in Hebrew something that we believe, is the responsibility of all human beings to strive for. EWA has been born out of a deep concern at the E-Waste Recycling Industry's inability to keep pace with the IT revolution fuelled gadget consumption frenzy. Electronic products are being

discarded the world over like never before generating tons of E-Waste every single day. E-Waste is hazardous and if it is not recycled responsibly, it will pollute air, soil and water permanently and irreversibly. Of the 90 million tons of e-waste generated each year, less than 5% is recycled responsibly. The rest ends up with irresponsible recyclers or in landfills, causing damage to the environment.

The primary reason why only 5% e-waste is recycled responsibly is because of certain technological and financial challenges faced by recyclers. Recyclers the world over have single mindedly focused on ‘Segregation and Mining’ for expensive materials as a business model. We believe this approach has severe limitations. Our approach has been ‘Combination instead of Segregation’. Our method of Recycling is simple, versatile and cost effective. Ours is a process that converts uneconomical E-Waste into a useful material ‘EWA’ in an eco-friendly process without the release of any hazardous remnants, effluents or pollutants. We believe our Patent Pending Technology is the world’s cleanest and most cost effective method of recycling e-waste.

### **Overview of Productive Use of E- Waste & recycling Process Guest Lecture**

1. **Metal Recovery** – Gold, silver, copper, and platinum from circuit boards used in electronics, automotive, and jewelry.
2. **Plastic Reuse** – Casings and cables recycled into furniture, tiles, or packaging.
3. **Glass Recovery** – Screen glass reused in building materials and fiberglass.
4. **Battery Recycling** – Lithium, cobalt, and nickel reused in new batteries and electric vehicles.
5. **Refurbishment & Reuse** – Old devices repaired, upgraded, and donated.
6. **Upcycling** – Creative repurposing into art, furniture, or educational kits.

### **Topics Covered in the Guest Lecture:**

1. **Introduction to E-Waste**  
Definition, sources, and examples of electronic waste.
2. **Need for E-Waste Management**  
Rising e-waste generation, environmental and health hazards.
3. **Objectives of E-Waste Recycling**  
Conservation, pollution control, resource recovery, employment.
4. **Productive Uses of E-Waste**  
Metal recovery, Plastic reuse, Glass recovery, Battery recycling, Refurbishment and upcycling
5. **E-Waste Recycling Process**  
Collection & transportation, Sorting & dismantling, Shredding & size reduction, Separation techniques (magnetic, eddy current, chemical, water/air), Refining & recovery, Safe disposal of hazardous waste
6. **Benefits of E-Waste Recycling**  
Environmental, economic, and social benefits.
7. **Challenges in E-Waste Management**  
Informal sector handling, lack of awareness, high recycling costs, improper disposal.

## 8. Government Policies & Regulations

E-waste management rules, producer responsibility, international guidelines (e.g., Basel Convention).

## 9. Case Studies / Examples

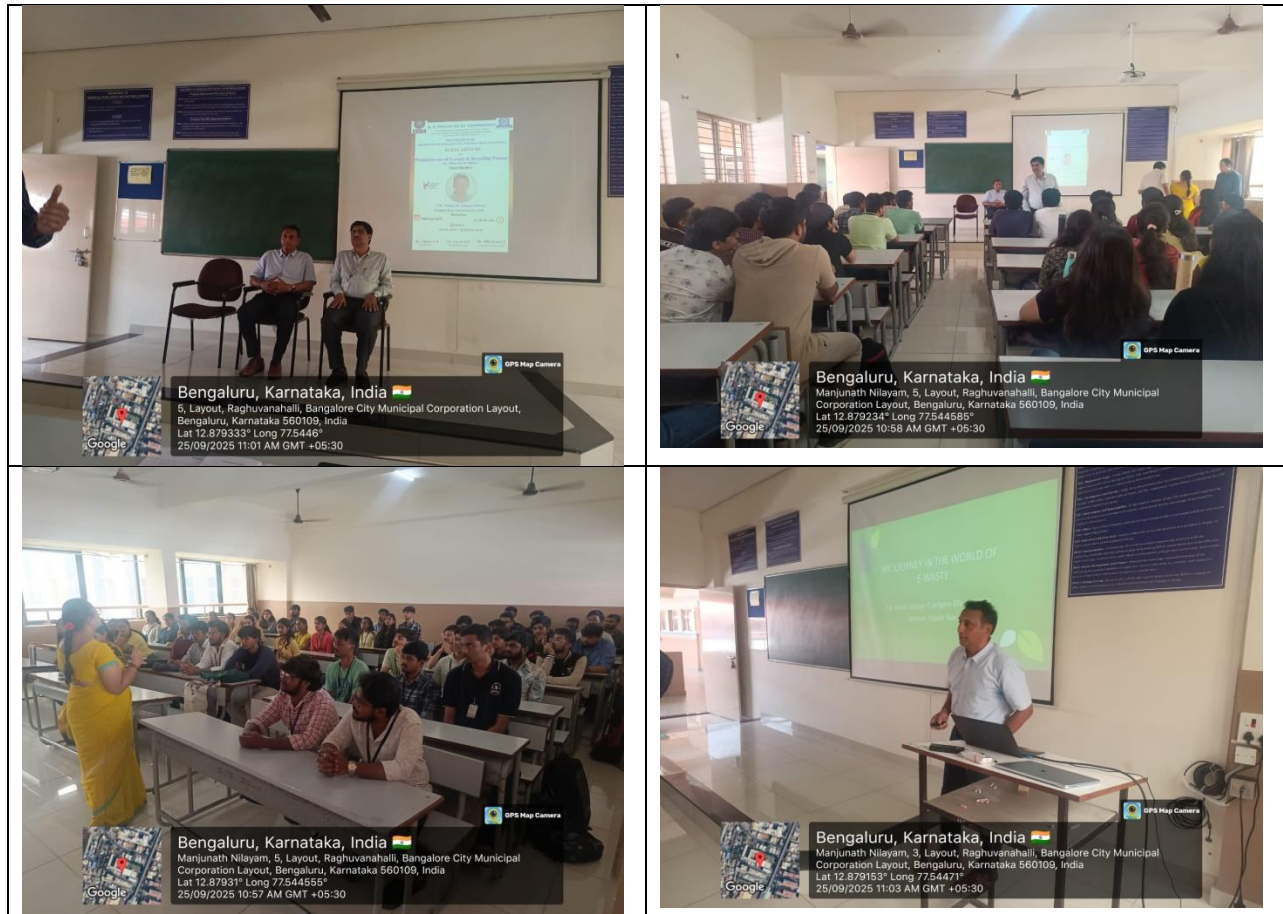
Successful e-waste recycling initiatives (India & global).

## 10. Future Scope & Sustainable Practices

Circular economy, green design, consumer awareness.

The Students are interacted with resources person & discussed many ways of E-Waste recycling Process. The Guest lecture was Effective & useful for 7<sup>th</sup> Semester Students.

### Glimpse of the Event



### CO/PO Mapping:

CO/PO & PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2
Guest Lecture on Productive Use of E- Waste & recycling Process	2	2	-	2	-	2	2	-	2	2	2	2	2

Coordinator Sign

HOD AI&ML

Principal



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DEPARTMENT OF  
ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

GUEST LECTURE

ON

“Productive use of E-waste & Recycling Process”

(For VII Sem AI & ML Students )

Guest Speaker



**Cdr. Sanjay R Jangam (Retd.)**  
Founder, Ewa Upcyclers Pvt Ltd.  
Bangalore



25th Sept 2025

@ 10:30 AM



VENUE

AI&ML DEPT. SEMINAR HALL

**Ms. Chaitra Y R**  
Co-ordinator

**Dr. Suresh M B**  
Prof & Head, AIML

**Dr. Dilip Kumar K**  
Principal / Director, KSIT