Kalpataru Vidya Samsthe ®
Kalpataru Institute of Technology, Tiptur-572201
(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by A.I.C.T.E, New Delhi)
Department of Artificial Intelligence & Machine Learning

Dr. Raviprakash M L
Professor & Head

Ph. No.: 9535511649
Email ID: raviprakashml@gmail.com

Report on One-Day National Service Scheme[NSS]Camp

Date: 21st December 2024

Venue: Kalpataru Institute of Technology, College Campus, Tiptur (Tq), Tumakuru (D) – 577201

Organized by: Department of Artificial Intelligence and Machine Learning, Kalpataru Institute of Technology, Tiptur

---

Introduction

In today's world, waste management has become one of the most pressing environmental challenges. Rapid urbanization, lifestyle changes, and increasing consumption patterns have led to large volumes of waste being generated every day. If unmanaged, this waste contributes to **pollution, climate change, and health hazards**. To address this global concern, educational institutions play a vital role in spreading awareness and instilling responsible habits in the younger generation.

As part of the **VTU National Service Scheme (NSS)** curriculum, the **Department of Artificial Intelligence and Machine Learning (AI & ML)** of Kalpataru Institute of Technology organized a **One-Day Waste Management Camp** on 21st December 2024. The event aimed to **educate students, promote sustainable practices, and build a culture of environmental responsibility**. The camp emphasized **effective wet waste management, recycling, composting, and waste reduction practices**, while also encouraging students to extend these learnings to the community.

The initiative not only highlighted the **urgent need for collective action in waste management** but also provided students with a platform to **translate theoretical knowledge into practical solutions**. By combining classroom learning with real-world applications, the camp sought to nurture a sense of accountability, leadership, and community engagement among participants, thereby reinforcing the role of higher education institutions as catalysts for sustainable development

Participants

The camp was held under the distinguished guidance of **Dr. Raviprakash M. L., Head of the Department of Artificial Intelligence and Machine Learning**, who inaugurated the program with an inspiring address emphasizing the significance of sustainability and the pivotal role of students in promoting environmental conservation.

The event was effectively coordinated by faculty members **Prof. Vinaykumar V. N., Prof. Vidyashree M., Prof. Divya C. B., and Prof. Yashaswini N. L.**, who meticulously organized various activities to ensure enthusiastic student participation and meaningful experiential learning.

A total of **60 students** from the Department of AI & ML participated enthusiastically, making the camp both educational and impactful.

Objectives of the Camp

The primary objectives of the Waste Management Camp were:

1. **Environmental Protection**
    - Minimize air, water, and soil pollution caused by improper waste disposal.
    - Safeguard biodiversity and ecosystems through responsible waste management.
2. **Public Health and Safety**
    - Prevent the spread of diseases caused by open dumping and contaminated water.
    - Reduce community exposure to hazardous substances.
3. **Resource Conservation**
    - Promote recycling and reuse to reduce dependence on virgin raw materials.
    - Conserve energy and natural resources through circular economy practices.
4. **Waste Reduction at Source**
    - Encourage habits such as **segregation, reuse, and composting**.
    - Instill sustainable consumption patterns among students.
5. **Economic Efficiency**
    - Reduce costs related to waste collection, treatment, and transportation.
    - Explore entrepreneurial opportunities in **green technologies and recycling industries**.

Case Study and Interactive Learning

During the camp, students were introduced to the **Kamikatsu Model (Japan)**, a globally acclaimed example of successful community-driven waste management.

- **Segregation at Source:**
  Residents sort their waste into **45 different categories**, ensuring maximum recovery and recycling. Categories include plastics, metals, glass, paper, textiles, and food scraps. This prevents unnecessary landfilling.
- **Community Education:**
  Continuous awareness programs, workshops, and campaigns are organized to educate residents on the importance of recycling and waste segregation.
- **Composting of Organic Waste:**
  Kitchen and garden waste are converted into compost and returned to households as natural fertilizer, reducing landfill dependency.
- **Repair and Reuse:**
  Repair cafés and community-led initiatives encourage fixing broken items, extending their lifespan, and reducing the need to purchase new goods.

Student Engagement:

- After the presentation of the case study, students actively participated in discussions, sharing ideas on how a **scaled-down version** of the Kamikatsu model could be adapted to the **Kalpataru Institute campus**.
- Brainstorming sessions highlighted the importance of **awareness campaigns, student-driven waste segregation projects, and composting units on campus**.

Key Observations Documented by Students:

1. Effective wet waste management reduces pollution and improves hygiene.
2. A structured waste segregation system can be practically implemented at KIT.
3. Student-led awareness drives can influence nearby communities to adopt sustainable practices.

Outcomes of the Camp

The camp achieved several tangible outcomes:

- **Knowledge Enhancement:**
  Students gained **practical exposure** to sustainable waste management techniques and learned about global best practices.
- **Awareness Building:**
  Participants understood the **environmental, health, and economic dimensions** of waste management.
- **Campus Initiatives:**
  Proposals were drafted to start a **waste segregation pilot project** on campus, beginning with separate bins for wet and dry waste in hostels and academic blocks.
- **Community Impact:**
  Students pledged to **spread awareness in their neighborhoods** about household segregation, composting, and reducing plastic usage.

Conclusion

The **One-Day Waste Management Camp** at Kalpataru Institute of Technology served as a **transformative learning experience** for students and faculty alike. The camp emphasized that waste management is not merely a civic duty but a **shared responsibility** that requires participation from individuals, institutions, and communities.

Through interactive sessions, case studies, and discussions, students recognized that **small changes in daily practices—such as proper segregation, reuse, recycling, and composting—can collectively bring about significant environmental benefits**.

The initiative has laid the foundation for **sustainable practices on campus** and has inspired students to become **ambassadors of environmental conservation** in their respective communities. Moving forward, the Department of AI & ML aims to collaborate with the NSS unit to establish **long-term waste management programs** at KIT, including:

- Setting up composting units,
- Conducting periodic awareness drives, and
- Partnering with local municipal bodies for waste recycling.

The success of this camp highlights the potential of student-driven initiatives in shaping a cleaner, greener, and more sustainable future.


KALPATARU INSTITUTE OF TEC
NATIONAL SERVICE
[N.S.S]