

2 DAY WORKSHOP ON “RECENT TRENDS IN EFFECTIVE WASTE MANAGEMENT”

Introduction:

The Department of Civil Engineering at MVJ College of Engineering has successfully conducted a two-day workshop titled “Recent Trends in Effective Waste Management.” This workshop brought together academics, industry experts, researchers, and students to discuss and explore innovative strategies, technologies, and trends in the domain of waste management.

The event focused on addressing challenges and sharing best practices for managing Municipal Solid Waste (MSW), Construction and Demolition (C&D) Waste, E-Waste, and other critical categories of waste.

Day 1: November 7th, 2024

Morning Session:

- **Speaker: G.S. Manjunath**
- **Topic: Wastewater Management**



Principal Dr.Umamaheswaran welcoming the guest

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The workshop opened with an **inaugural session** that set the tone for the three-day event. The session emphasized the growing need for effective waste management systems, with an increasing focus on sustainability, technological advancements, and policy changes.

Afternoon Session:

- **Speaker: G.S. Manjunath**
- **Topic: Sewage Treatment plant design**
 - **Session Overview:** G.S. Manjunath led an insightful session on **Wastewater Management**, highlighting the critical role of treating and recycling wastewater to ensure sustainable urban growth and environmental protection.



Sri G.S. Manjunath explaining the design of STP

- **Key Points Discussed:**
 - **Current challenges** in managing wastewater in rapidly growing cities.
 - **Technological innovations** in wastewater treatment, including advanced filtration methods and chemical treatments.

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- The importance of **water recycling** and **reuse** to address global water scarcity.
- Regulatory frameworks guiding wastewater management, including the **National Green Tribunal (NGT)** guidelines and **State Pollution Control Boards**.
- The economic benefits of efficient wastewater treatment, reducing the reliance on freshwater sources and lowering environmental impacts.
- **Audience Interaction:** There were several questions from the attendees, particularly around the implementation of these technologies in local municipalities, the cost involved, and case studies of successful projects.

The first day concluded with discussions on the importance of wastewater management in protecting the environment and ensuring the sustainability of urban water resources.

Day 2: November 8th, 2024

Morning Session:

- **Speaker: Dr. Bharath**
- **Topic: Sustainability Concepts in Waste Management**

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- **Session Overview:** Dr. Bharath delivered a thought-provoking session on the concept of sustainability in waste management. He discussed how incorporating sustainability principles into waste management can mitigate environmental damage and promote long-term ecological balance.



Dr. Bharath explaining the concept of sustainability in waste management

- **Key Points Discussed:**
 - The importance of moving towards a circular economy, which minimizes waste and maximizes resource efficiency.
 - Strategies for reducing waste generation through source reduction, reuse, and recycling.
 - The role of composting and biodegradable waste in sustainable waste management practices.
 - A deep dive into zero waste cities, exploring global initiatives and local models.
 - The integration of sustainable design in product packaging and urban planning to reduce waste production at its source.

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- Government policies promoting sustainability, such as the Swachh Bharat Mission in India and international sustainability goals.
- **Audience Interaction:** Dr. Bharath encouraged active participation from students, inviting them to share their own sustainability practices and challenges. The discussion revolved around practical steps individuals and businesses could take to contribute to sustainable waste management.

Afternoon Session:

- **Speaker: Mr. Rameshkumar**
- **Topic: Biomedical Waste Management**
 - **Session Overview:** Mr. Rameshkumar’s session focused on the growing concern of **biomedical waste**, which includes hazardous materials such as used syringes, contaminated surgical tools, and expired medications. He discussed the importance of managing biomedical waste carefully to prevent risks to human health and the environment.



Dr. Kasi Rekha and Dr.Venkata Ratnam welcoming the chief guest.

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- **Key Points Discussed:**

- The classification of biomedical waste into categories like **infectious, non-infectious, hazardous, and general waste.**
- The **segregation** of biomedical waste at source in healthcare facilities.
- **Safe disposal methods**, including **incineration, autoclaving, and chemical disinfection.**
- The **legal framework** for biomedical waste management, including regulations under the **Biomedical Waste (Management and Handling) Rules** and **EPA guidelines.**
- Case studies of hospitals and medical institutions that have successfully implemented sustainable biomedical waste management systems.

- **Audience Interaction:** Attendees raised concerns about the challenges in small healthcare centres regarding waste segregation and proper disposal. Mr. Rameshkumar addressed these issues, stressing the importance of training, awareness, and government support.

Conclusion:

The workshop concluded with a **closing ceremony** that summarized the key takeaways from each session and provided participants with resources for further learning and implementation of best practices in waste management. The event also emphasized the role of all stakeholders, from government bodies and businesses to individuals, in building a sustainable waste management ecosystem.

Summary:

The **2-day workshop “Recent Trends in Effective Waste Management”** has been a successful event, covering a range of crucial topics related to the latest practices and innovations in waste management. The expert sessions by **G.S. Manjunath** on wastewater management, **Dr. Bharath** on sustainability, and **Mr. Rameshkumar** on



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biomedical waste management provided attendees with practical knowledge and inspiration to implement better waste management strategies in their respective fields.

Through engaging discussions, case studies, and hands-on activities, the workshop provided participants with the tools and knowledge to contribute to the evolving field of waste management and sustainability. The event also fostered networking opportunities for professionals to collaborate and share their experiences in making waste management more efficient and sustainable.