

### S.J.M VIDYAPEETHA ®







**Brief Report of Technical Talk On** 

### "CONSERVATION OF ENERGY"

# Organised by DEPARTMENT OF CIVIL ENGINEERING In Association with IIC & IQAC

**RESOURCE PERSON: Dr. Gajalakshmi K** 

Assistant Professor RV College of Engineering, Bangalore

DATE: 07/03/2024 TIME: 11.00 AM

Program Co-ordinators
Prof. Meenakashi M
Prof. AnushaV

Dr. Srishaila J M
Professor & HOD
Principal
Principal



# S.J.M VIDYAPEETHA® S.J.M. INSTITUTE OF TECHNOLOGY



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# DEPARTMENT OF CIVIL ENGINEERING In Association with IIC IQAC and IIC





# Organizing online Seminar on "CONSERVATION OF ENERGY"

DATE: 07/03/2024 TIME: 11.00 AM

RESOURCE PERSON: Dr. Gajalakshmi K

Assistant Professor RV College of Engineering, Bangalore

Link to join the session: https://meet.google.com/njo-mekb-fct

Program Co-ordinators
Prof. Meenakashi M

Prof. AnushaV

Dr. Srishaila J M Professor & HOD Dr. Bharath P B
Principal

Topic: Organizing Seminar on "CONSERVATION OF ENERGY"

#### **Objectives:**

- 1. Educate on Energy-efficient Practices
- 2. Increase overall awareness of the environmental and economic benefits of energy conservation.
- 3. Highlight Community Initiatives
- 4. Emphasize Industrial Energy Efficiency

Speaker: Smt Dr. K.Gajalakshmi Assistant Professor, Department of Civil Engineering, RV College of Engineering, Bengaluru.

#### **Speaker Profile:**

Dr. K.Gajalakshmi currently working as an Assistant Professor, Department of Civil Engineering, RV College of Engineering, Bengaluru.

The achievements of the resource person:

- 1) Patent was filled on title of innovation "An intelligent mobile alert system for reservoir water level and flow indication integrated with GPS for farmers.
- 2) Received best paper award for the "Hydro geomorphology based land using planning for sustainable development of hard rock terrain region of Karnataka from "Andalas university, Pardang in Indonesia.
- 3) The book chapter published on title such as "Village mapping UAV technology published in the book called as "Drone data analytics in aerial computing.
- 4) She was awarded Ph.D on "Integrated study on watershed development and management of Chikkaballapur district, Karnataka using GIS- techniques.
- 5) She published 13 papers under different publications, conference publications are 9.
- 6) She also visited Singapore in May2013, Dubai in May 2015, Indonesia in October 2017 and Nepal in the year of November 2019.
- She's having a teaching experience of 15years, worked in so many colleges like RV college of engineering, PES Institute of technology in Bengaluru and worked as a lecturer in the department of Civil Engineering in Sastha Institute Engineering and technology, Chennai

#### **Brief report of the event:**

#### **Introduction:**

The Department of Civil Engineering, SJM Institute of Technology has organized a Technical Talk on "Conservation of Energy" in association with Institution's innovation council (IIC) and IQAC. The talk covered various levels of energy conservation, including household, community, industrial, and transportation sectors. The session aimed to educate students about sustainable practices and encourage them to contribute to energy conservation efforts.

The session was very effective and knowledgeable. Our resources person shared her knowledge with our students and staff regarding the renewable energy such as solar energy, wind energy, hydro energy, biomass energy, bio-fuel, tidal energy. She also educated regarding Conservation of energy at various levels like,

- Conservation of energy at Household level
- Conservation of energy at Community level
- Conservation of energy at industries and other places
- Conservation of energy at transportation Sector

#### **Session highlights:**

#### 1. Conservation of Energy at Household Level

Dr. Mehta began by emphasizing the significant impact that household energy conservation can have on overall energy consumption. Key points discussed included:

- **Energy-efficient Appliances**: Encouraging the use of appliances with high energy efficiency ratings (like ENERGY STAR).
- **Lighting**: Switching to LED bulbs and using natural light whenever possible.
- **Heating and Cooling**: Proper insulation of homes, using programmable thermostats, and regular maintenance of HVAC systems.
- Water Heating: Installing solar water heaters and using water-saving fixtures.
- **Behavioral Changes**: Simple habits like turning off lights when not in use, unplugging devices, and washing clothes in cold water.

#### 2. Conservation of Energy at Community Level

The talk then moved to community-level initiatives that can lead to substantial energy savings:

- **Shared Resources**: Implementing community solar projects and shared electric vehicle (EV) charging stations.
- **Green Buildings**: Promoting the construction of energy-efficient buildings with green roofs and advanced insulation.
- **Public Awareness Campaigns**: Educating the community through workshops, social media, and local events.
- Smart Grids: Developing smart grids to optimize energy distribution and reduce wastage.

#### 3. Conservation of Energy in Industries and Other Places

Industries are major consumers of energy, and Dr. Mehta highlighted several strategies to reduce their energy footprint:

- Energy Audits: Conducting regular energy audits to identify and rectify inefficiencies.
- **Industrial Equipment**: Upgrading to energy-efficient machinery and motors.
- **Process Optimization**: Streamlining manufacturing processes to minimize energy use.

- Waste Heat Recovery: Implementing systems to capture and reuse waste heat from industrial processes.
- Renewable Energy: Investing in renewable energy sources like solar, wind, and biomass for industrial energy needs.

#### 4. Conservation of Energy in the Transportation Sector

The transportation sector is another critical area for energy conservation. Key points included:

- **Fuel-efficient Vehicles**: Promoting the use of fuel-efficient and hybrid vehicles.
- **Public Transportation**: Enhancing public transportation infrastructure to reduce the reliance on individual cars.
- Non-Motorized Transport: Encouraging walking, cycling, and the use of electric scooters.
- Alternative Fuels: Research and development of alternative fuels like biofuels, hydrogen, and electric propulsion.
- **Policy Measures**: Implementing policies and incentives for reducing vehicular emissions and promoting clean transportation.

#### **Conclusion**

The technical talk concluded with an interactive Q&A session where students posed questions about specific energy conservation methods and their implementation. The speaker encouraged the students to think critically about their energy use and to advocate for sustainable practices within their communities and future workplaces. The session was well-received, and students left with a better understanding of how they can contribute to energy conservation efforts at various levels. The importance of collective action and continuous innovation in the field of energy conservation was emphasized as essential for creating a sustainable future.

#### **Photos:**







#### **Attendance:**

## SIM Vidyapeetha®

### S J M INSTITUTE OF TECHNOLOGY, CHITRADURGA – 577502 DEPARTMENT OF CIVIL ENGINEERING Seminar on "Conservation OF Energy"

Time: 11:00 am

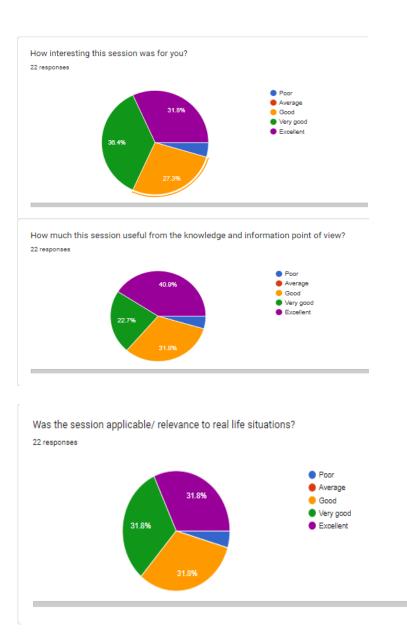
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#### **Key outcomes:**

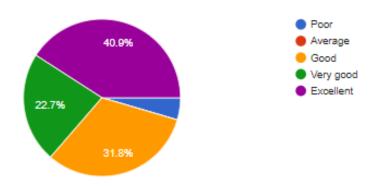
- 1. Participants gained a deeper understanding of how small changes in household energy use can lead to significant savings.
- 2. Participants showed enthusiasm for participating in and organizing community-level energy conservation projects.
- 3. Participants expressed interest in advocating for and designing energy-efficient buildings within their communities.
- 4. Participants showed a keen interest in learning more about conducting energy audits and identifying inefficiencies in industrial processes.

#### Feedback:



How relevant was the content discussed by the speaker?

22 responses



How would like to rate the overall session?

22 responses

