

**ASD GOVERNMENT DEGREE COLLEGE FOR
WOMEN (A), KAKINADA**

DEPARTMENT OF PHYSICS



BEST PRACTICES

**Educating the Students to Embrace
Energy Conservation**





DEPARTMENT OF PHYSICS

BEST PRACTICE

Title of the Practice

Educating the Students to Embrace Energy Conservation

Objectives of the Practice

- To inculcate students with the essential tools and knowledge needed to engage in energy conservation efforts, both on a personal and collective level, fostering a more sustainable and energy-efficient future.
- Environmental Responsibility-- To reduce the environmental footprint by minimizing energy usage, which will ultimately decrease carbon emissions and conserve natural resources.
- Sustainability Awareness--To increase students' awareness of the importance of sustainable living and the role they play in creating a more sustainable future.
- To showcase the economic benefits of energy conservation, emphasizing the potential for lower utility costs and the financial advantages of energy-efficient technologies
- Instill habits that contribute to a sustainable future, where energy resources are used wisely and efficiently.

. The Context

- Learning about the economic benefits of energy conservation fosters a sense of financial responsibility.
- Make students realize that small, consistent actions—such as using energy-efficient appliances or turning off unused electronics—can lead to meaningful savings, they are more likely to integrate these habits into their daily routines.

- The broader goal is not just to save money, but to instill a mindset that values long-term sustainability and financial awareness, encouraging students to make choices that positively impact both their finances and the environment.
- The initiative aims to provide students with a comprehensive understanding of how such practices can lead to significant reductions in utility costs

The Practice

In today's world, energy conservation is not only an environmental necessity but also an economically beneficial practice. By applying these practices, students will not only experience the financial benefits firsthand but also develop a long-term mindset focused on sustainability and financial responsibility.

Energy Audits: Encourage students to conduct energy audits in their homes or dorms. By tracking energy usage, they can identify areas where energy consumption can be reduced, such as unplugging devices when not in use or switching to energy-efficient lighting.

Adopting Energy-Efficient Appliances: Guide students in choosing energy-efficient appliances or technologies, like LED light bulbs, energy-efficient refrigerators, or programmable thermostats, which lower electricity bills while reducing environmental impact.

Smart Energy Management: Introduce students to smart technology like smart thermostats, smart plugs, or energy monitoring systems that help reduce waste by automatically adjusting energy usage based on activity patterns or when devices are not in use.

Life style adjustments: Encourage simple habits like turning off lights when leaving a room, using natural light whenever possible, and limiting the use of heating and cooling systems to reduce energy usage.

Budgeting for Sustainability: Teach students how to incorporate energy conservation into their personal budgeting. By tracking their energy expenditures and comparing them with potential savings, they can see the real-time financial benefits of energy-efficient practices.

Sharing Knowledge: Motivate students to share their energy-saving tips and experiences with peers, creating a culture of financial responsibility and environmental awareness within their communities or student organizations.

Evidence of Success

- ❖ The physics Department organised conducted Virtual Lecture on “Basics of Energy conservation and Future of Renewables”.
 - ❖ The Physics department conducted Essay writing competitions on Energy conservation Techniques and Conserve, Preserve, and Thrive: Energy Awareness for All
 - ❖ Awareness Programmes by the students on the “Conserve Today, Protect Tomorrow: An Energy-Saving Initiative” in their surrounding community.
 - ❖ Community service Projects on “Electricity consumption Pattern”
 - ❖ Group discussions on Bright Solutions: Saving Energy, Shaping the Future
 - ❖ Awareness Programmes to the students on the “Energy Smarts: Small Changes, Big Impact on Energy conservation Day Dec14 Every year.
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- ❖ **Energy-Efficient Technology Adoption**

As part of the program, students were encouraged to switch to energy-efficient appliances. A survey conducted post-program showed that 40% of students had upgraded their household appliances (e.g., LED bulbs, energy-efficient refrigerators) following the campaign’s guidance, which directly supports the program's focus on promoting long-term, sustainable energy practice


Virtual Guest Lecture on Energy Conservation

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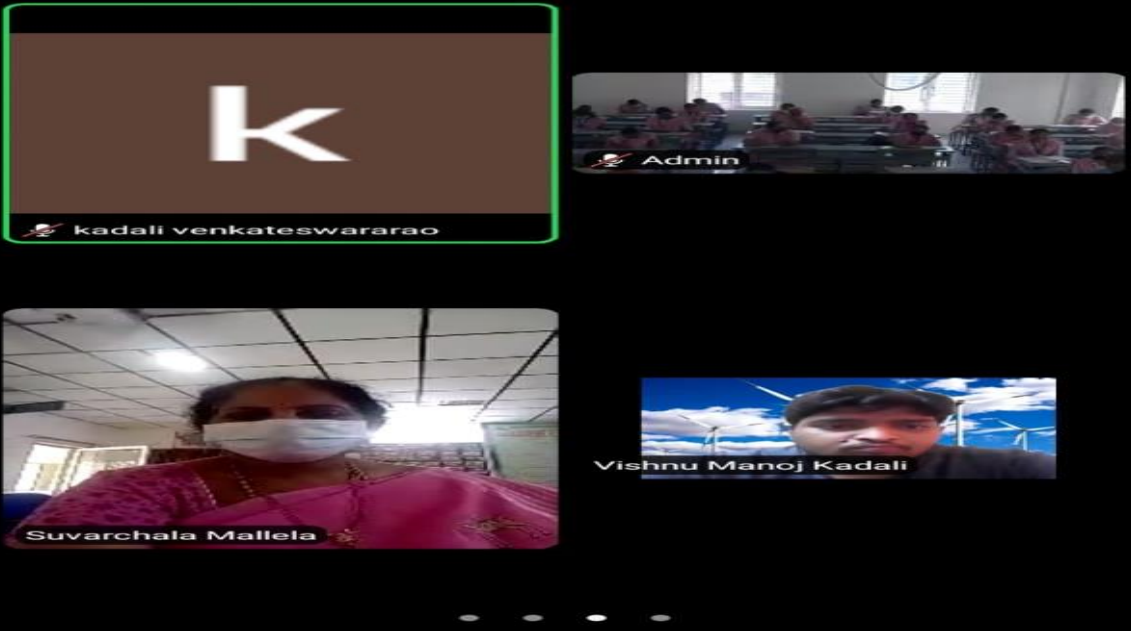
Energy conservation at home

(A)Power

- Switch off lights and fans while leaving rooms.
- Use energy efficient tube lights and bulbs.
- Keep lights and fixtures clean and dirt free.
- Use dimmer switches to adjust the amount of lighting according to need.
- Use light colors for walls.
- Avoid opening the fridge door frequently.
- Use you washing machine at proper loads.

Vishnu Manoj Kadali's screen 

4G 4G 12:45 86.2 KB/s --- Y21 4G 89%



kadali venkateswararao

Admin

Suvarchala Mallela

Vishnu Manoj Kadali

Awareness program by the Students on "Energy Conservation: Saving Money, Saving the Planet" in surrounding community



Group Discussion on "Energy Conservation: Small Changes, Big Impact"



Awareness to the students on Conserving Energy, Building a Better tomorrow on Energy conservation Day



Group Discussion Energy Conservation: The Key to a Sustainable Future"



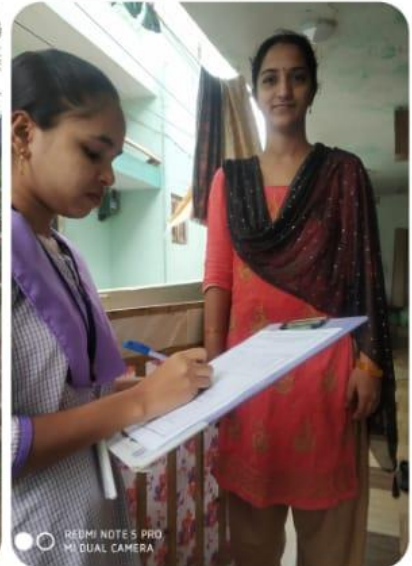
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Mini Project on Electricity Consumption Pattern

- 1) Names of the electrical and electronic gadgets you use every day.
 - A)
 - B)
 - C)
 - D)
 - E)
 - F)
- 2) How much current bill do you get in winter months (average per month)
- 3) How much current bill do you get in Summer months (average per month)
- 4) Do you know 5 star and 3 star ratings for ACS and other gadgets.?
- 5) Do you have inverter at home? Yes/no
- 6) Do you use led bulbs in your home?
- 7) Do you have electric vehicles?
- 8) What is the mode of payment of your electricity bill? Are you paying online or offline.
- 9) Do you know about the new project launched by the Prime Minister Surya Ghar Muft Bijli Yojana.
- 10) Any any other information.

Survey by the students on Electricity Consumption Pattern



The energy conservation awareness programme has demonstrated significant success, with measurable reductions in energy consumption. Positive feedback from participants, and a substantial increase in both awareness and practical energy-saving behaviour. These results confirm the program's effectiveness in encouraging students to adopt sustainable energy practices, contributing to long-term economic and environmental benefits.