THREE DAY WORKSHOP

on

EMPOWERING YOUNG LEARNERS FOR ENERGY CONSERVATION: LED & TUBE LIGHT REPAIR TRAINING

Background

Energy conservation is a crucial priority for India as it moves towards achieving the goals of sustainable development, energy efficiency, and environmental protection. A significant component of this effort is spreading awareness and practical knowledge among the younger generation. School and University students, being future citizens, can play a transformative role in energy conservation by adopting sustainable practices early in their lives. Recognizing this need, the Eco-Club and Internal Quality Assurance Cell (IQAC), Akal University, jointly propose to organize a three-day workshop on ***Empowering Young Learners for Energy Conservation: LED & Tube Light Repair Training***. The workshop will provide hands-on exposure to students from Akal University and nearby schools on energy-saver tube lights-their types, assembling, repairing, reusing, and waste management. Industry experts will guide the sessions to ensure that students learn LED and tube light repairing and practices in a structured manner.

Objectives of the Workshop

1. To create awareness among students about energy conservation and the importance of efficient lighting technologies.
2. To provide practical training in repairing energy-saver LED and tube lights.
3. To inculcate knowledge of reusing and sustainable e-waste management of lighting devices.
4. To motivate students to serve as “Energy Ambassadors” in their schools and communities.
5. To strengthen Government of India’s initiatives on energy efficiency, renewable energy adoption and SDG-7: Affordable and Clean Energy.

Methodology

The workshop will be conducted using a participatory and practical approach to ensure that students not only gain theoretical knowledge but also acquire hands-on skills in energy conservation. Participants will be nominated by nearby schools in consultation with the Akal University, with a total of 150 students, from classes 9th to 12th and Physics (H) UG classes will be attending the Three-day program in the batches of 75 students during first two days and 40-45 selected students on third day. Equal representation of schools and genders will be ensured to make the program inclusive and impactful. Each day of the workshop will be led by industry

experts invited from reputed Zoro Star LED Lights, Ambala, Haryana, who will conduct interactive sessions combining lectures, demonstrations, and practical exercises. The experts will explain the importance of energy conservation, different types of energy-saver tube lights, and their real-world applications. The focus will be on hands-on training, where students will directly work with both new and faulty tube lights. They will learn how to assemble and disassemble the devices, carry out basic repairs, adopt safe handling practices, and explore reuse techniques to extend the life of these appliances. This experiential component will help the students develop practical repair and reuse skills, enabling them to apply the knowledge in their schools and communities.

Students will be divided into small groups for collaborative learning activities such as assembling and repairing tube lights under the supervision of experts. This group-based structure will foster teamwork, and ensure that every student actively participates. Dedicated sessions will also address e-waste management and recycling practices, emphasizing the importance of safe disposal of electronic waste and its impact on human health and the environment. The experts will demonstrate how improper disposal of lighting devices causes harm and guide students on responsible waste segregation and recycling methods. To strengthen awareness, case studies and Q&A sessions will be incorporated into the program, giving students the opportunity to interact directly with the experts, clarify doubts, and understand successful energy-saving initiatives implemented in India. As part of the follow-up plan, students will be encouraged to act as “Energy Ambassadors” in their schools and communities. Schools will be motivated to establish student-led energy conservation clubs to continue awareness and action beyond the workshop.

Target Participants

- 150 school students from nearby schools.
- Participants will be selected in collaboration with local schools.
- Students from classes 9th to 12th and few UG Physics (Hons) students will be selected.

Resource Persons

Two industry experts Mr. Hardeep Singh (GM) and Mr. Rahul Gouri (Growth Catalyst) Zoro Star LED Light, Ambala along with 2 Technicians

Expected Outcomes

By the end of the workshop:

- 150 students will gain awareness and hands-on skills in energy conservation.
- Students will be able to assemble, repair, and reuse energy-saving tube lights.

- 40-45 advanced learners will be selected for hand-on training on sophisticated instruments at Zoro Star LED Light, Ambala
- Advanced learners will be our future trainers for future school students visiting at Akal University.
- Knowledge of proper e-waste management will reduce environmental hazards from discarded devices.
- The workshop will create student ambassadors of energy conservation who will spread awareness in their schools, families, and communities.
- This initiative will directly contribute to India's commitments under the UN Sustainable Development Goal (SDG-7: Affordable and Clean Energy).

ORGANISING DEPARTMENTS

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Internal Quality Assurance Cell

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