



# UNIVERSAL ENGINEERING COLLEGE

**Semester:** 7

**Batch:** 2021 Admission (A batch)

**AY:** 2024-25

**Programme Period:** 2021-25

**Course:** EET435 Renewable Energy Systems

**Faculty:** Dr. Premsankar

## Report on Role Play conducted

Date: 18/7/2024

Participants: Abhiram Sivan, Achuth K J, Adhithkrishna K B

### **Role-Play Setup:**

- ❖ In the activity, one student took on the role of the Sun, providing energy.
- ❖ Another student represented the Solar Panel, converting sunlight into electrical energy.
- ❖ Additional participants acted as Batteries and Loads, illustrating energy storage and usage.
- ❖ The session was guided with explanations on how factors such as efficiency, panel orientation, and shading affect energy generation.

### **Activity Description:**

- ❖ The role-play started with the “Sun” directing energy toward the “Solar Panel,” representing solar radiation.
- ❖ The “Solar Panel” then converted this energy into electricity, which was transferred to the “Batteries” for storage and later supplied to the “Loads” for consumption.
- ❖ Throughout the activity, real-time explanations highlighted how system performance is influenced by correct panel positioning and reduced shading.
- ❖ A brief demonstration showed that partial shading lowered the output of the “Solar Panel,” thereby decreasing the energy delivered to the “Load.”



### Activity Outcome:

- ❖ The role-play effectively helped students gain both a visual and conceptual understanding of solar photovoltaic systems. By representing system components through roles, students developed a clearer understanding of how factors like orientation, shading, and energy storage impact the efficiency and performance of a solar energy system.

**Dr. Premsankar R**

**HoD (ME)**