Chettinad College of Engineering & Technology, Karur

Department of Electrical and Electronics Engineering

News Report

Programme Name: Value Added Course - "Design and Implementation of Solar and Wind Energy Systems"

Date: 24-07-2023 to 26-07-2023 (3 Days)

Class & No. of Participants: III Year & 26 Students

Faculty incharge:

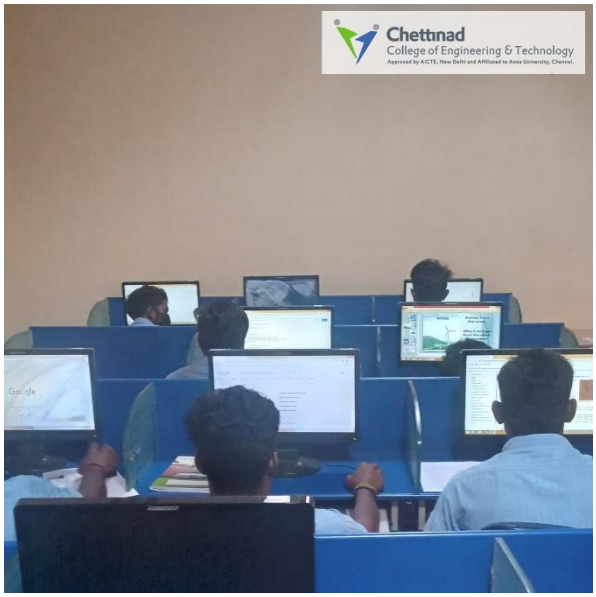
1. Dr.M.Senthil Kumar,Prof/EEE
2. Mrs.A.Bhuvaneswari,Sr.AP/EEE
3. Mrs.P.Thenmozhi,AP/EEE

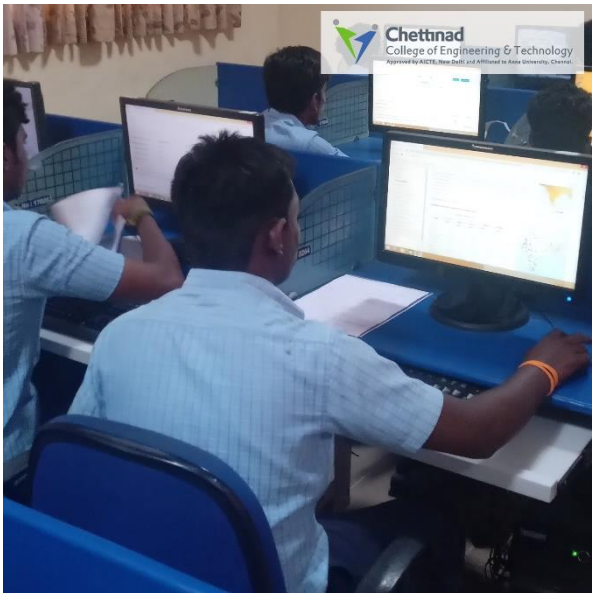
Description:

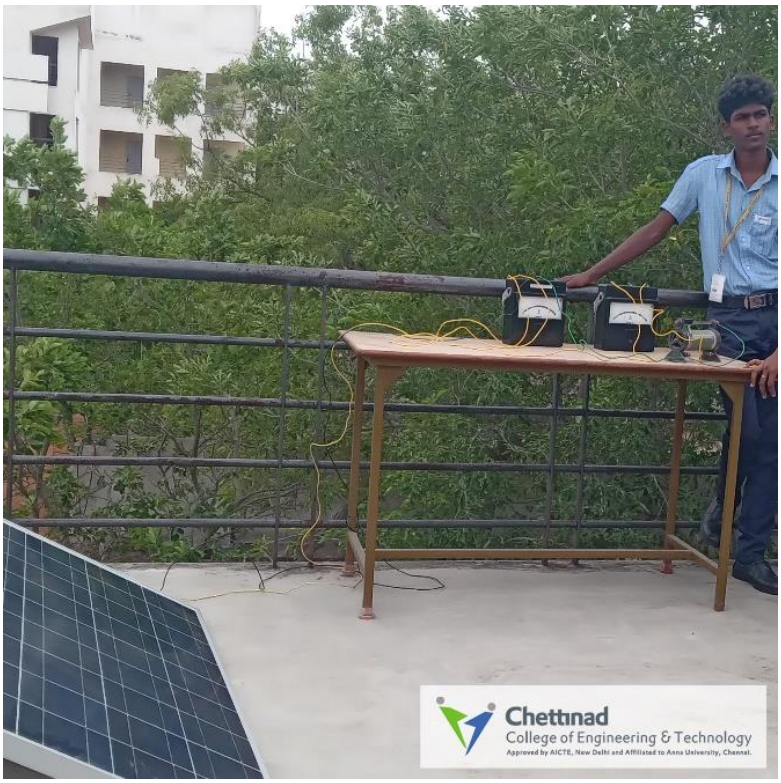
The Department of Electrical and Electronics Engineering conducted a Value-Added Course on "Design and Implementation of Solar and Wind Energy Systems" from 24-7-2023 to 26-7-2023 for third-year EEE students. The course aimed at enhancing their understanding of renewable energy systems, particularly in solar and wind energy. It covered fundamental concepts, and students were guided through simulations using the MATLAB compiler. During the course, students simulated PV cells to study their voltage and current characteristics, with a focus on maximum power tracking and controllers using MATLAB. They also learned to calculate the efficiency of 1KW PV cells with and without shadowing effects. Furthermore, they were introduced to simulating "Wind Energy Generators" using MATLAB and delved into Hybrid Power Systems. Reflecting on the course, P. Gowtham expressed gaining knowledge in designing and implementing solar and wind energy systems with MATLAB, particularly in calculating and implementing 1KW power in PV cells under various conditions. R. Mirudhula acknowledged learning the basics of MATLAB compiler and PV cells. She also demonstrated the characteristics of solar PV cells with and without shading effects and comprehended the functioning of Wind Energy systems. S. Lakshan recognized the importance of renewable energy systems and the MATLAB compiler, as well as gained an understanding of how to calculate energy from PV cells. The practical implementation of PV cells with and without shading

effects, and measuring current and voltage flow, proved to be an engaging experience. Additionally, they attained proficiency in compiling MPPT controllers and designing solar and wind energy systems with MATLAB. Overall, the session proved to be interactive and insightful, providing valuable learning experiences for all the students involved in the course.

Event Photos:






Chettinad
College of Engineering & Technology
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