PSGR Krishnammal College for Women

KCW-CARES – Centre for Energy Studies

Certificate Programme on "Rooftop Solar Panel Installation & Sizing"

Report

Date: 5th – 7th August 2025.

The Certificate Course on Rooftop Solar Panel Installation & Sizing was successfully conducted from 5th to 7th August 2025, delivering both theoretical knowledge and practical training on solar energy systems. The three-day programme aimed to enhance participants' skills in solar energy assessment, installation, sizing, and commissioning—essential competencies for today's renewable energy workforce.

This course was structured into 6 modules (15 hours theory + 3 hours assessment), covering topics from solar resource optimisation to hands-on system installation, ensuring that learners acquired comprehensive and industry-relevant knowledge. A total of 20 participants attended the programme, representing a diverse mix of backgrounds:

- Students and faculty members from St. Aloysius College, Mangalore
- Staff from Government Polytechnic
- Practising electrical engineers and technicians

The diversity of participants enriched peer learning and encouraged active discussions throughout the sessions.

SPEAKERS PROFILE

Mr. S. Siva Kumar

Position: Project Head, Green Solar Technology & Partner, Vahiine Technologies Pvt. Ltd.

Experience: Over 30 years in solar projects, energy auditing, and energy conservation. He delivered a highly interactive and technically rich session on solar PV components, site survey methods, energy conservation, and industrial best practices.

Credentials:

- Former Faculty, Petroleum Conservation Research Association (PCRA)
- Zero Effect Zero Defect (ZED) Certified Consultant – QCI
- MSME Competitive Lean Consultant
- ISO 9001:2015 Lead Auditor
- CII Certified Carbon Footprint Auditor
- GHG Verification and Validation Auditor

The programme covered different topic like Solar Resources & Radiation Optimisation, Site Selection & Shadow Analysis, PV Modules & Inverters, Installation & Junction Box Connections, Energy Needs Assessment & System Sizing. Participants were engaged in field demonstrations, energy calculation exercises, and use of PV watt calculators.

Outcome & Impact

By the end of the course and based on the trained materials we hope, the participants would able to:

- Conduct solar site surveys and shadow analysis
- Calculate household/commercial energy needs for PV sizing
- Select appropriate PV modules, inverters, and components
- Install and test rooftop solar systems in compliance with safety standards
- Understand carbon footprint reduction and energy conservation strategies

Several participants expressed interest in pursuing **entrepreneurship in the solar sector** or **integrating solar systems in their professional projects**.

Glimpse of the training