



UNIVERSITI  
TEKNOLOGI  
MARA

Institut  
Penyelidikan Solar

## SHORT COURSE

# INTRODUCTION TO OPERATION AND MAINTENANCE OF GRID CONNECTED PHOTOVOLTAIC (GCPV) SYSTEMS



SPEAKER



## DR. SHAHRIL IRWAN

- Holds a PhD in Electrical Engineering from Universiti Teknologi MARA, Malaysia
- M.Eng. Sc. in Photovoltaic Engineering from University of New South Wales, Australia
- Associate Professor in School Electrical Engineering, College of Engineering, Universiti Teknologi MARA, Malaysia
- Head of Green Energy Research Centre (GERC) at Universiti Teknologi MARA, Malaysia
- Expertise in design, installation, testing & commissioning, operation, and maintenance of grid-connected and stand-alone photovoltaic systems
- Member of working groups for reviewing and developing Malaysian and International IEC Standards for photovoltaic systems
- Contributed to over 70 publications in the field of photovoltaic systems.

29- 30  
APR  
2024

UiTM-MTDC Technopreneur  
Centre,  
Universiti Teknologi MARA,  
40450 Shah Alam, Selangor,  
Malaysia.



8AM- 5PM

### ABOUT COURSE

The course provides a comprehensive overview of operating and maintaining Grid Connected Photovoltaic (GCPV) systems. Participants gain insights into design principles, testing procedures, and efficient maintenance practices. Ideal for professionals in renewable energy, the course enhances expertise in ensuring optimal performance and longevity of solar power installations.

### COMPREHENSIVE COURSE INCLUDES

1. Solar Energy - Basic Solar Engineering.
2. Overview of Grid-Connected Photovoltaic Systems - Principle Operation, Available Schemes, Types and Related Standards.
3. System Components - PV Module Technologies and Information from Datasheet & Inverter, Structure, Cable (DC and AC), Breaker (DC and AC), Fuse, SPD etc.
4. Installation, Testing and Commissioning - Issues and Guidelines.
5. Operation and Maintenance - Schedule and Corrective Maintenance.
6. Monitoring and Performance - Sensor Requirements, Monitoring Parameters, and Data Interpretation.
7. Tools and Measurement - Solmetric PVA-1500V PV Analyzer & DJI Matrice 300 RTK Thermal Drone

### LEARNING OUTCOME

- Learn the basics of operating Grid Connected Photovoltaic (GCPV) systems.
- Acquire skills for efficient maintenance practices.
- Apply knowledge to enhance GCPV system longevity and performance.

### RELEVANCE TO

- Engineer / Qualified Person
- Technician/ Chargineman / Wireman
- Contractor/ Service Provider
- Project Manager/ Regulator
- Academia / Researchers

### FEE PER PARTICIPANT



**RM1,500.00**

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