

## SOLAR ENERGY AND PHOTOVOLTAIC (PV) SYSTEMS

### Objectives:

This programme is intended to cover overview of solar energy, technology aspects of different solar PV modules, their application in ground based and rooftop systems, major subsystems of rooftop PV such as inverter, batteries; their sizing and maintenance activities relating to grid-connected and off-grid PV systems.

Participant Benefits/Expected Outcome of the course	Venue, Duration and Dates
<p>After attending this program, the participant will be able to understand:</p> <ul style="list-style-type: none"> <li>• The energy level of solar radiation</li> <li>• Working of PV cells, modules, inverters and batteries</li> <li>• Grid connected and standalone PV systems</li> <li>• Technical issues and challenges associated with intermittency associated with solar PV</li> <li>• The design aspects of PV rooftop systems</li> <li>• Maintenance methods and practices of PV systems</li> <li>• The application of PV design software</li> </ul>	<p>Mode of Training: Online Duration: 15 Hrs. (3 Hrs. per day) Date: 12.09.2022-16.09.2022</p>
<p><b>Course Coverage</b> Major topics that will be covered during the course:</p> <ul style="list-style-type: none"> <li>• Basics of solar energy</li> <li>• Physics of crystalline and non-crystalline PV cells</li> <li>• PV rooftop systems: standalone and grid connected</li> <li>• Inverters and batteries for PV systems</li> <li>• PV maintenance practices &amp; inspection schedules</li> <li>• Demonstration of solar PV system design software</li> </ul>	<p><b>Target Audience</b></p> <p>Executives with any engineering background working in Plant Operation, Maintenance, Engineering etc. of power generation companies, system providers etc.</p>
	<p><b>Learning Methods</b></p> <p>Lecture and Discussions</p>
	<p><b>Course Director</b></p> <p>S K Majumdar</p>