

3 Month add-on  
Short term course on  
Training in  
**" SOLAR TECHNOLOGY :  
INSTALLATION TO  
BUSINESS"**

Collaborative programmes to be jointly conducted by  
MGICCC (Govt. of NCT of Delhi), Bakoli, Delhi & SSN College (DU), Alipur, Delhi



# Curriculum

1. **BASIC OF ENERGY SYSTEMS& ENVIRONMENTS:** ( 2 Hours)
  1. Conventional energy resources, renewable energy resources, introduction to solar thermal & photovoltaic system.
  2. Concept / role of solar technology for-environment, climate change and sustainable development .
  
3. **SOLAR TECHNOLOGIES COMPONENT FAMILARATIONS:** ( 4 Hours)
  1. Solar radiation and material characterization, passive and active heating , photoelectric effect, solar cell technology , defining of components like pv cell, module, panel and arrays etc.
  2. Measuring the requirement of pv module for a particular load, factors influencing the output of a pv module, basics about batteries and selection of batteries for pv systems .
  3. Functions, working, types and features of solar charge controller/regulator and its role, maximum power point tracking (mppt) charge controller,
  4. Introduction to inverters & wires and their role in SPV power.
  
5. **SOLAR TECHNOLOGIES -** ( 3 Hours)
  1. Solar photovoltaic technologies & solar thermal technologies for domestic use
  2. Solar photovoltaic technologies & thermal technologies for industrial applications.
  3. Concept of solar building design.
  
6. **SOLAR BUSINESS :**( 4 Hours)
  1. Solar system load calculations, design, precautions and safety measures
  2. Important factor for solar business planning to installation .
  
3. **ENERGY SAFETY& ENVIRONMENTAL ISSUES :** ( 4 Hours)
  1. Principal of energy conservation and Safety
  2. Principal of energy audit, Energy planning and management
  3. Innovative approach to energy conservation ,
  4. Environmental issues: social & scientific approach ,

5. Innovative approach to waste managements

**6. Practical Sessions - ( 4 Hours)**

1. Connect and test solar panel to the Inverter and run the load,
2. Mount a solar panel to a roof, Wire a solar controller to a solar to a battery storage station,
3. Connect storage batteries to a power inverter, Wire a power inverter to an electrical service panel,
4. Test circuits of voltages and other troubleshooting
5. Installation of Solar Inverter etc.

**6. FIELD VISIT - ( 15 Hours)**

Visit of trainees to the nearest biodiversity park, solar power installation to demonstrate various aspects to cover skills as specified above.

**7. PROJECT WORK ( 5 Hours)**

Project work to cover skills as specified above.

NOTE : Certificate will be provided to those who successfully complete the project work .

**List of Students for short term course on  
SOLAR TECHNOLOGY : INSTALLATION TO BUSINESS**

<b>S NO.</b>	<b>NAME</b>	<b>S NO.</b>	<b>NAME</b>
1	VIVEK MANN	18	PIYUSH KUMAR
2	SAGAR	19	MUKUL DAGAR
3	SACHIN PAHAL	20	KUNAL SHARMA
4	RITIKA	21	KOMAL SHARMA
5	SANCHIOT	22	JYOTI RANA
6	SHANAWWAZ	23	HARI OM AGGARWAL
7	SHUBHAM AGGARWAL	24	GAURAV BHARDWAJ
8	SHWETA MISHRA KUMARI	25	GOURAV
9	SNEHA GUPTA	26	GAGAN
10	SONIA YADAV	27	DR. CHAGAN
11	SURAJ	28	BRIJENDER DAHIYA
12	VIKAS DAHIYA	29	ANITA
13	VINAY KUMAR YADAV	30	AKHTAR AHMAD
14	VISHAL PARJAPATI	31	YOGESH
15	RISHABH RANA	32	KAMAL SHARMA
16	RAMAN		
17	EAHUL		

