

GOVERNMENT DEGREE COLLEGE
KARVETINAGARAM, CHITTOOR (DT), A.P.



Certificate Course
On

SOLAR ENERGY

Organized by

Department of Physics



GOVT. DEGREE COLLEGE, KARVETINAGARAM, CHITTOOR DIST.

Date: 01-02-2024
Karvetinagaram

CIRCULAR

All the First and Second year B.Sc students are hereby informed that the Department of Physics is going to commence a certificate course on “**Solar Energy**” from 7th February 2024 in the afternoon sessions.

Duration of the Course: 30 Hours

Course Fee: Free of cost

For further details contact : M. Rajasekhar, Department of Physics



Lecturer- incharge


PRINCIPAL
Govt. Degree College
KARVETINAGAR - 517582
Chittoor Dt. A.P.


CERTIFICATE COURSE BROCHURE



Certificate Course
on

SOLAR ENERGY

Eligibility	: First & Second year B.Sc Students
Registration Fee	: Free of Cost
Registration Start	: 02-02-2024
Registration End	: 06-02-2024
Duration of Course	: 30 hrs
Course Start	: 07-02-2024

GOVT. DEGREE COLLEGE, KARVETINAGARAM, CHITTOOR DIST

Certificate Course on “Solar Energy”

SYLLABUS

Total: 30 hours

Unit- 1: Solar Radiation

Sun as a source of Energy, Solar radiation, Solar radiation at the Earth's surface, Measurement of Solar radiation – Pyroheliometer, Pyranometer, Sunshine recorder, Prediction of available solar radiation, Solar energy – Importance, Storage of Solar energy. Solar pond.

Unit – 2: Solar thermal Systems

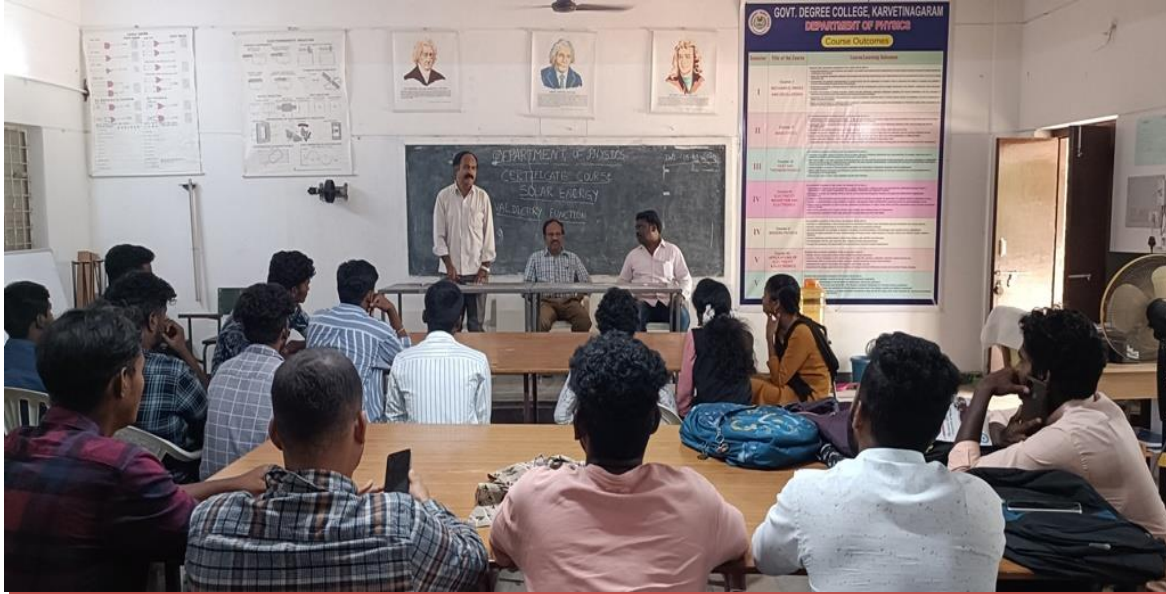
Principle of Conversion of solar radiation into heat, Collectors used for solar thermal conversion: Flat plate collectors and Concentrating collectors, Solar thermal power plant, Solar cookers, Solar hot water systems, Solar dryers, Solar Distillation, Solar greenhouses.

Unit- 3: Solar Photovoltaic Systems

Conversion of solar energy into Electricity – Photovoltaic Effect, Solar Photovoltaic cell and its working principle, Different types of solar cells, Series and parallel connections, Photovoltaic applications: Battery charges, domestic lighting, street lighting and water pumping.

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**DEPARTMENT OF PHYSICS
INAUGURATION FUNCTION FOR CERTIFICATE COURSE
“SOLAR ENERGY”**



GOVT. DEGREE COLLEGE, KARVETINAGARAM, CHITTOOR DIST.
DEPARTMENT OF PHYSICS – 2023-24

Certificate Course on “SOLAR ENERGY**”**

List of Student:

S.No.	Name of the Student	Class
1	M. ARUN	II B.Sc(MPCs)
2	M. SUNIL KUMAR	II B.Sc(MPCs)
3	T. ARUN	II B.Sc(MPCs)
4	K. VAMSI KRISHNA	II B.Sc(MPCs)
5	P. DILLIKUMAR	II B.Sc(MPCs)
6	S. SIDDIK	II B.Sc(MPCs)
7	V. SYAMALA	I B.Sc (Hon)
8	V. SUPRIYA	I B.Sc (Hon)
9	P. GEETHANJALI	I B.Sc (Hon)
10	V. CHITRA	I B.Sc (Hon)
11	A.CHENCHAMMA	I B.Sc (Hon)
12	M. VISHNU	I B.Sc (Hon)
13	K. RAJDORA	I B.Sc (Hon)
14	J. HEMANTH KUMAR	I B.Sc (Hon)
15	C. VIGNESH	I B.Sc (Hon)
16	G. SUDHA	I B.Sc (Hon)
17	P. HARITHA	I B.Sc (Hon)
18	S. HAFEEZA	I B.Sc (Hon)
19	N. VARAPRASAD	I B.Sc (Hon)
20	P. SHYAM	I B.Sc (Hon)

Brief Report on
Certificate course on “SOLAR ENERGY”

A certificate course on Solar Energy was inaugurated on 7th February 2024 in this college by the principal Dr. S. Vijuyulu Reddy. The course duration is 30 hours. This course was run free of cost to the student by the Department of Physics. The course was run by Dr. V. Balasubramanyam Achari and Sri. M. Rajasekhar. The course was conducted one hour per day including Practical's. Twenty students are enrolled in this course.

After completion of the course, Certificates were distributed to the students on 18-03-2024.



Certificate Distribution for “Solar Energy” Certificate Course



Certificate Distribution for “Solar Energy” Certificate Course



Certificate Distribution for “Solar Energy” Certificate Course

Day –wise certificate course class


S.No.	Date	Topic
1	07-02-2024	Sun as a source of Energy
2	08-02-2024	Solar radiation
3	09-02-2024	Solar radiation at the Earth's surface
4	10-02-2024	Measurement of Solar radiation – Pyroheliometer
5	13-02-2024	Measurement of Solar radiation – Pyranometer
6	14-02-2024	Sunshine recorder
7	15-02-2024	Prediction of available solar radiation
8	16-02-2024	Solar energy – Importance
9	17-02-2024	Storage of Solar energy
10	19-02-2024	Solar pond
11	20-02-2024	Principle of Conversion of solar radiation into heat
12	21-02-2024	Flat plate collectors and Concentrating collectors
13	22-02-2024	Solar thermal power plant
14	23-02-2024	Solar cookers
15	24-02-2024	Solar hot water systems
16	28-02-2024	Solar dryers
17	29-02-2024	Solar Distillation
18	01-03-2024	Solar greenhouses
19	02-03-2024	Conversion of solar energy into Electricity – Photovoltaic Effect
20	04-03-2024	Solar Photovoltaic cell and its working principle
21	05-03-2024	Different types of solar cells

22	06-03-2024	Series and parallel connections
23	07-03-2024	Photovoltaic applications: Battery charges
24	11-03-2024	Photovoltaic applications: domestic lighting
25	12-03-2024	Photovoltaic applications: street lighting
26	13-03-2024	Photovoltaic applications: water pumping
27	14-03-2024	Student Seminar
28	15-03-2024	Student Seminar
29	16-03-2024	Examination for Certificate Course
30	18-03-2024	Valedictory Function

Outcomes of Solar Energy:

After studying this course, you should be able to:

- ❖ Explain the principles that underlie the ability of various natural phenomena to deliver solar energy
- ❖ outline the technologies that are used to harness the power of solar energy
- ❖ Discuss the positive and negative aspects of solar energy in relation to natural and human aspects of the environment.


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