

AMET

ACADEMY OF MARITIME EDUCATION AND TRAINING
DEEMED TO BE UNIVERSITY
(Under Section 3 of UGC Act 1956)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VALUE ADDED COURSE DETAIL

ACADEMIC YEAR-2018-19

1	Course Name	Solar based Renewable Energy Technology
2	Course offered by	LABTECH Electronics Pvt.Ltd.,, Chennai
3	Co-Ordinator	Dr.V.Karthikeyan and Dr.M.Rajavelan
4	Instructor	Mrs.S.Muthulakshmi, LABTECH
5	Course	-
6	Class	BE-EEE(Marine)
7	Number of Students per batch	47
8	Duration	30hrs
9	No. of Hrs /Week	3hrs/Week
10	Prerequisite	Basic Electronics Engineering Knowledge
11	About the Course	Impart knowledge about renewable energy systems, design of battery, inverter and troubleshooting of PV systems.
12	Course Objective	To explain photovoltaic systems, Identify PV mounting types and calculation of system cost & loads
13	Course Outcome	Able to demonstrate different solar cell modules and working of solar cell modules
14	Topics Covered	Syllabus Attached
15	Learning References	List of reference attached
16	Assessment Method	Hands on Training
17	Attendance Sheet	Copies Attached
18	Photograph	Copies Attached
19	Certificate Copies	Copies Attached
20	Feedback About The Course	Copies Attached
21	Action Taken Report	Copies Attached

ORGANIZING COMMITTEE

Convener:

Dr. T. Sasilatha,

Professor and Dean, Dept of EEE & Dean Academic

Program Coordinators:

Dr. V. Karthikeyan, Professor

E-mail ID: v.karthikeyan@ametuiv.ac.in

COURSE STRUCTURE:

The value added course will be more added advantage with regular academic subjects for EEE student. Students of third year EEE benefited through this training.

Training Modules	Total No. of Students	Duration (Hrs)
Module 1 to Module 6	47	30

BENEFITS

- ❖ The Course provides detailed technical information and step-by-step methodology for design, installation, testing, commissioning and maintenance of grid-connected and off-grid solar PV systems.
- ❖ The course covers fundamental principles behind working of a solar PV system, use of different components in a system, methodology of sizing these components to create a well-functioning solar PV system, and methodology of evaluating financial performance of a solar PV system.
- ❖ The course also includes a description of procedures to conduct site surveys for system sizing and installation, and performing testing, commissioning, maintenance activities in accordance with relevant international standards relating to grid-connected and off-grid solar PV systems.

ABOUT THE UNIVERSITY

AMET University has got a unique distinction of being the first maritime university established in India and offering academic, research, training in maritime education as well as offering consultancy service to maritime sector for the past seven years contributing much to produce human resources to the shipping industry in India and abroad. Invariably at least five students cadets of AMET proudly occupy exalted positions like chief engineers, captains and other key posts in every ship sailing in the international waters. Further AMET proudly holds the prestigious award of "A1 outstanding grade" conferred by the directorate general of shipping, Ministry of shipping, Government of India.

ABOUT THE DEPARTMENT

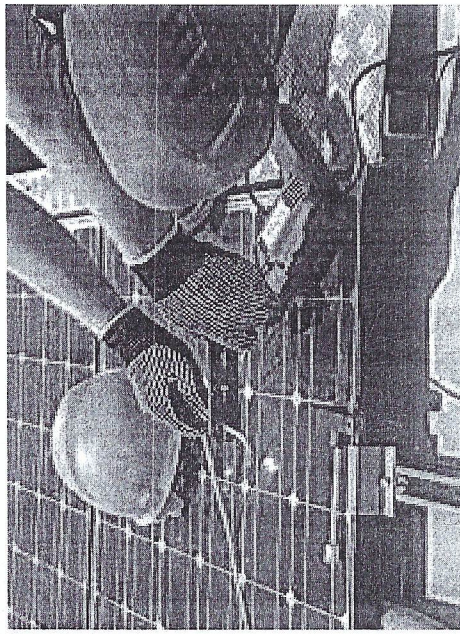
Department of Electrical and Electronics Engineering is established in the year 2008 with the objective of imparting quality education of international standards and to produce highly innovative Electrical and Electronics Engineers capable of solving global maritime challenges. The Department offers 4 years U.G program in EEE and 2 years P.G program in Power Systems and Doctoral programs in core areas as well as interdisciplinary domains.

The department houses state-of the art laboratories, smart class rooms and well stacked library to impart teaching and research. The department is committed to community development and conducts regular extension activities to benefit the local and needy villagers around the university. The department is proud of its legacy of Alumni who occupies key positions in world class Maritime/Non-Maritime sectors

VALUE ADDED TRAINING PROGRAM

ON

SOLAR BASED RENEWABLE ENERGY TECHNOLOGY



Organized by

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

In association with



LABTECH ELECTRONICS PVT.LTD



AMET
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REPORT

on

VALUE ADDED TRAINING PROGRAM

"SOLAR BASED RENEWABLE ENERGY TECHNOLOGY"

Organized By
Department of Electrical and Electronics Engineering

In Collaboration with



LABTECH ELECTRONICS PVT.LTD

Date: SEPTEMBER 2018- NOVEMBER 2018

Venue:
AMET Deemed to be University

Convener
Dr. T. Sasilatha
Professor and Dean
Department of Electrical and Electronics Engineering

Co-Ordinators
Dr. V. Karthikeyan, Professor
Dr. M. Rajavelan, Assistant Professor

The following students attended the training programme.

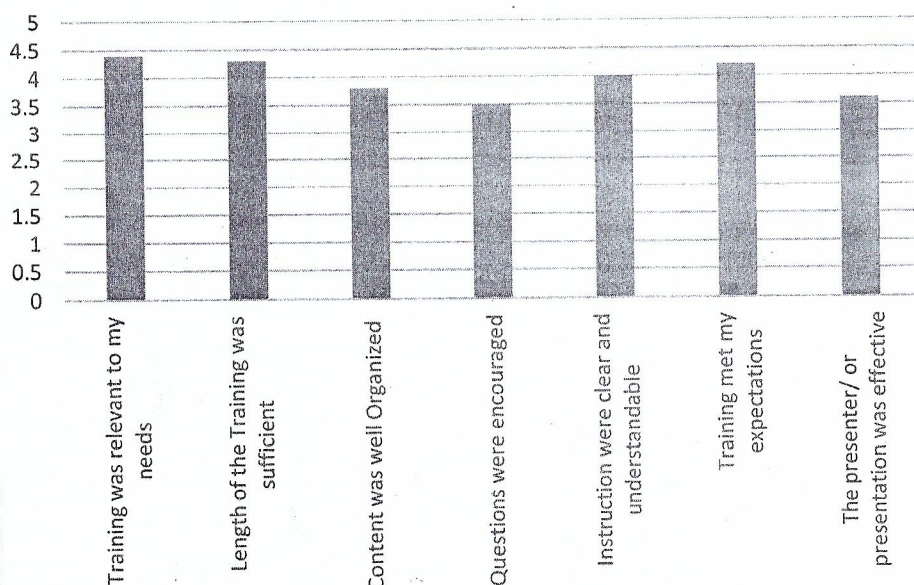
II Year EEE

S.No	Roll No	Student Name
1	EE329	VINNARASI V
2	EE330	AAGASH G
3	EE331	ABHISHEK M DEEPAK
4	EE332	ADARSH P
5	EE333	AKASH K
6	EE335	ARUN P
7	EE336	ARUN KUMAR K S
8	EE337	BALA GANESH P
9	EE338	BALAJI M
10	EE339	BALAMURUGAN K
11	EE340	BRIJESH C R
12	EE341	P DHANASEKAR
13	EE342	DINESH R
14	EE343	DURAIPANDI A
15	EE344	HARIHARAN N
16	EE345	I HASHEEM SHARIFF
17	EE346	HEMANTH RAJ R
18	EE347	JAYA SURYA G
19	EE348	KARTHICK R
20	EE350	MAHESHWARAN A
21	EE351	MANIVANNAN DS
22	EE352	MANOJ C K
23	EE353	MANOJ KUMAR R
24	EE354	MOHAMED NAJEEM N
25	EE355	MOHAMED YASEER N
26	EE356	MOHAMMED AZHAIR M S
27	EE357	MOHAMMED SHUAIB K
28	EE358	NAVEEN B
29	EE359	NAVEEN P
30	EE360	NAVIN ANAND
31	EE361	NIRMAL KUMAR B
32	EE362	PRADEEP M
33	EE363	PURUSHOTHAMAN N
34	EE364	RUDRAN V
35	EE365	SANTHOSH B
36	EE367	SOURAV GUPTA
37	EE368	SUDARSHAN K
38	EE369	SURYA PRASAD A
39	EE370	UDHAYAKUMAR A
40	EE372	VENKATESAN K
41	EE374	YOGESH KUMAR A
42	EE375	VIGNESH K
43	EE377	SRIDHAR



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
VALUE ADDED TRAINING PROGRAM
ON
SOLAR BASED RENEWABLE ENERGY TECHNOLOGY
In association with
LABTECH ELECTRONICS PVT LTD
FEEDBACK ANALYSIS



Action Taken: Found Satisfactory



Attendance Register

Sl.No.	Roll No.	NAME	1 8/1	2 3/1	3 3/1	4 10/1	5 10/1	6 10/1	7 24/1	8 27/1	9 27/1	10 31/1	11 31/1	12 21/1
1.	329	Vennasasi . V	/	/	/	/	/	/	/	/	/	/	/	/
2.	330	Agash . G	/	/	/	a	a	a	/	/	/	/	/	/
3.	331	Abhishek M. Deepak	/	/	/	/	/	/	/	/	/	a	a	a
4.	332	Akash . P	/	/	/	/	/	/	/	/	/	/	/	/
5.	333	Akash . K	/	/	/	/	/	/	/	/	/	/	/	/
6.	335	Arun P	/	/	/	a	a	a	/	/	/	/	/	/
7.	336	Arun Kumar . K	/	/	/	/	/	/	/	/	/	a	a	a
8.	337	Balaganesh . P	/	/	/	/	/	/	a	a	a	/	/	/
9.	338	Balaji . M	/	/	/	/	/	/	/	/	/	/	/	/
10.	339	Balamurugan . K	/	/	/	/	/	/	/	/	/	/	/	/
11.	340	Brijesh . C.R	/	/	/	/	/	/	/	/	/	/	/	/
12.	341	Dhanasekar . P	/	/	/	/	/	/	/	/	/	/	/	/
13.	342	Dinesh . R	/	/	/	/	/	/	/	/	/	/	/	/
14.	343	Dhanipandi . A	/	/	/	a	a	a	/	/	/	/	/	/
15.	344	Hanishasan . N	/	/	/	/	/	/	/	/	/	/	/	/
16.	345	Hareesh Shanthi . T	/	/	/	/	/	/	/	/	/	/	/	/
17.	346	Hemantraj . R	/	/	/	a	a	a	/	/	/	/	/	/
18.	347	Jayasurya	/	/	/	/	/	/	/	/	/	/	/	/
19.	348	Karthik	/	/	/	/	/	/	/	/	/	/	/	/
20.	349	Nakshatram . A	/	/	/	/	/	/	/	/	/	a	a	a
21.	351	Narayanan . D.S	/	/	/	/	/	/	/	/	/	/	/	/
22.	352	Nanoj . C.K	/	/	/	/	/	/	/	/	/	/	/	/
23.	353	Nanoj Kumar . R	a	a	a	/	/	/	/	/	/	/	/	/
24.	354	Mohammed Najam	/	/	/	a	a	a	/	/	/	/	/	/
25.	355	Mohammed Yaseen	/	/	/	/	/	/	/	/	/	a	a	a
26.	356	Mohammed Ahamad	/	/	/	/	/	/	/	/	/	/	/	/
27.	357	Mohammed Shauab	/	/	/	/	/	/	/	/	/	/	/	/
Signature of the Faculty														

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Sl.No.	Roll No.	NAME	1 3/1	2 4/1	3 5/1	4 6/1	5 7/1	6 8/1	7 9/1	8 10/1	9 11/1	10 12/1	11 13/1	12 14/1
			5	5	A	1	1	5	5	6	5	6	5	6
28	358	NAVCEEN . B	1	1	1	1	1	1	1	1	1	1	a	1
29	359	NAVEEN . P	a	1	1	1	1	1	1	1	1	1	1	1
30	360	NAVIN ANAND	a	a	a	a	a	1	1	1	1	1	a	1
31	361	NIRMAL KUMAR	1	1	1	1	a	1	a	1	1	1	1	A
32	362	ROHDEEP . M	1	1	1	1	1	1	1	1	1	1	1	1
33	363	PURUKHOTIHAMAN . N	1	1	1	1	1	a	a	1	1	1	1	1
34	364	RUDRAN . V	1	1	1	1	1	1	1	1	1	1	1	a
35	365	SANTHOSH . B	a	1	1	1	1	1	a	a	1	1	1	1
36	368	SUDARSHAN	1	1	1	1	1	1	a	1	1	1	a	1
37	369	SURYA PRASAD . A	1	1	1	1	1	1	a	1	1	1	1	1
38	370	UDHAYA KUMAR . A	1	1	1	1	1	1	1	1	1	1	1	a
39	372	VENKATESAN . K	1	1	1	1	1	1	a	1	1	1	1	1
40	374	YOGESH KUMAR . A	1	1	1	1	1	1	a	1	1	1	1	1
41	375	VIGNESH . K	1	1	1	1	1	a	a	1	1	1	a	1
42	377	SRIDHAR	a	1	1	a	1	a	a	a	1	1	1	1
43	378	PRATIK KUMAR	a	a	a	a	a	1	a	1	a	a	1	a
44	379	JDEI	a	a	1	1	1	a	a	1	a	a	1	1
45	380	EZHIL ARASAN . R	a	a	a	1	1	1	a	1	1	1	1	1
46	381	M.C. VEERAPATHIRAN	a	1	1	1	1	a	a	1	1	1	1	1
47	382	S. VIKNESH	1	1	1	1	1	1	a	1	1	1	1	1

Labtech Electronics Pvt. Ltd.

- Didactic Training & Research System
- Industrial PLC Automation
- IOT Smart Solutions
- RF & Advanced Communication
- DSP, Embedded & VLSI Kits

- Renewable Energy Systems
(Solar, Wind, Biomass, Fuelcell)
- Advanced Process Control
- Power Electronics & Drives
- Smart Grid Power System
- Modern Machines Lab



LT/QTN/0180777/2018

17/12/2018

To
TH DEAN
Department Electrical Engineering
AMET University
Chennai

Dear Sir,

Sub: Submission of Quotation COURSE MODULE FOR VALUE ADDED TRAINING PROGRAM on RENEWABLE ENERGY FOR ELECTRICAL DEPARTMENT, III YEAR STUDENTS - Reg.

As per the enquiry, we are pleased to enclose our lowest QUOTATION for your favorable consideration.

We believe that you will find our offer as quite competitive at very compelling prices to your needs. If You require any further clarifications please do feel free to contact us.

Looking forward to receive your valuable order at the earliest.

Thanking you and assuring of our best & prompt service at all times.

Yours Sincerely,
for LABTECH ELECTRONICS PVT.LTD.

LABTECH ELECTRONICS PVT.LTD

S. Muthulakshmi
DIRECTOR

Mrs.Muthulakshmi ME, MBA

Director

CONTACT NO: 9840839871,9840909211

E-Mail: admin@labtech.co.in/ sales@labtech.co.in



Lab Tech

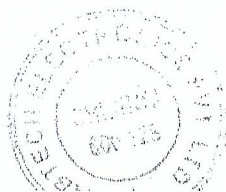
MOU + consultancy for
Staff + students

II yr

COURSE MODULE FOR VALUE ADDED TRAINING PROGRAM

Department:	Department of Electrical engineering
Candidates:	III Year Students, EEE Dept, AMET University
Duration:	30 Hours ((Weekly 3 Hours) (3 months Appx.)
Timing:	TBD
Place:	Department of EEE, AMET University, Chennai
Starting month:	January 2019
Course name:	SOLAR BASED RENEWABLE ENERGY TECHNOLOGY
Instructor:	Industry experts from LABTECH ELECTRONICS PVT LTD
Course fees:	1600/- Per head (Per Student)/(Minimum 30 Students)
Prerequisites:	Knowledge of computer fundamentals and basic programming
Requirements:	University must provide computers/Laptops with Single phase AC power supply & OPEN SPACE (6 sq.meters) Sufficient Level for the number of participating students
Deliverables:	Course Materials, Lecture by LABTECH Staff Solar Based Renewable Energy Technology Hands on Training, Test Series and Certificate
Certificate:	Course completion certificate upon successful Completion of the course and Test on SOLAR BASED RENEWABLE ENERGY TECHNOLOGY By LABTEH ELECTRONICS PVT.LTD.

MOU - Mr. Janarthanan
VAC - Dr. Rajavelan



COURSE SYLLABUS

- Electrical Engineering & Different types of Electrical Load,
- Wires and Cables
- Concept of Magnetism & Alternating Current Generation, Transmission and Distribution of Electricity
- Concepts and Classification of Non Conventional Energy Sources
- Renewable Energy and its prospects
- various RE Sources, Energy Flow in Ecosystem
- Physics of semiconductors and Solar cell technologies
- Solar Radiation and its Measurements
- Components of a PV System: Battery, inverter and Charge controllers
- Various Tracking mechanisms
- Trouble Shooting of different PV system and its important tools used
- Solar Thermal Systems
- Installation of Solar Power Plant
- Commissioning and Testing of Solar Power Plant
- O & M of Solar Power Plant
- Techno-economic analysis of solar thermal and solar PV power plants
- Grid Integration and System Operational Aspects
- Jawaharlal Nehru National Solar Mission
- MNRE guidelines
- DPR preparation for power plants
- **SOLAR PV GENERATION SYSTEM HANDS ON**

GENERAL TERMS AND CONDITION

1. GST NUMBER
2. GST CHARGES
3. ORDER MANDATORY

4. TERMS OF PAYMENT
5. VALIDITY OF OFFER

33AAACL4910F2ZO

18% EXTRA

PLEASE PROVIDES YOUR ORDER NUMBER AND DATE &
PLEASE MENTION THE QUOTATION NUMBER AND
PART NUMBER IN YOUR PO.

100% ADVANCE

3 MONTHS FROM THE DATE OF OFFER

FOR LABTECH ELECTRONICS. Pvt .Ltd

LABTECH ELECTRONICS PVT. LTD

S. Muthulakshmi
DIRECTOR

Mrs.Muthulakshmi ME, MBA
Director

CONTACT NO: 9840839871/9840909211

E-Mail: admin@labtech.co.in/ sales@labtech.co.in





Solar Based Renewable Energy Technology by Labtech Electronics Pvt.Ltd.