Department of EEE
Summary Sheet of Add on Courses Conducted
ACADEMIC YEAR 2022-23

S. No	Name of the Event	Type of the Event	Course Code	Number of Hours	Number of Students Enrolled
1	PCB TRAINING - ALTIUM DESGN COURSE	Value Added Course	2022-23/PEC/EEE/VAC09	30 Hrs	100
2	DESIGN AND INSTALLATION OF SOLAR PHOTO VOLTAIC SYSTEMS	Value Added Course	2022-23/PEC/EEE/VAC10	31 Hrs	55

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Summary report of PCB TRAINING -ALTIUM DESGN COURSE

PRAKASAM
ENGINEERING COLLEGE

Value added course			
Document ID:	2022-23/PEC/EEE/VAC09	**Document Name:**	Summary Report

Course Summary Report

Value added-courses in "**VAC09- PCB TRAINING-ALTIUM DESIGNER COURSE**" were organized organized by the Department of Electrical And Electronics Engineering at prakasam engineering college from 07 November to 11 November 2022. The total period of course is 30 hours. Totally, 100 students have enrolled of this course and participated during the course. The institutes Principal, Dr. Ch. Ravi Kumar appreciated the Departments efforts and congratulated the student for participating. Thanks to entire faculty and co-coordinator, the event was success

Students in the course obtained the following outcomes:

- Students able to Understand a single layer and multilayer PCB and fabricate a PCB
- Students able to understand types of testing in PCB
- Able to use more powerful Altium Designer features to improve their efficiency in creating printed circuit board designs.

COURSE PHOTO:

Co-ordinator

HOD

Principal

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Brochure of PCB TRAINING -ALTIUM DESGN COURSE

CHIEF PATRON

Dr.K.Ramaiah

Secretary & correspondant

Prakasam Engineering college, Kandukur

PATRON

Dr. CH.Ravi Kumar M.Tech.,Ph.D.

Principal

Prakasam Engineering college, Kandukur

CONVENER

Mr.SK.MEERA SHAREEF M.Tech.,(Ph.D.)

Head of Department

Department of Electrical and Electronics Engineering

Prakasam Engineering college, Kandukur

Co-Ordinator

Mr. SK. AARIF M.Tech

Assistant Professor

CHADALAVADA RAVI KUMAR

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PRAKASAM ENGINEERING COLLEGE

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NAAC

Value Added Course

On

VAC09- PCB TRAINING-ALTIUM DESIGNER

07-11-2022 To 11-11-2022

Organized by

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Venue: SEMINAR HALL - 1

For any details, please contact

Course in-charge

Mr. SK. AARIF M.Tech.

Assistant Professor

7842009079

COURSE OBJECTIVES

First & Foremost you get to learn out PCB designing in Altium designer software.You get to design out your own Arduino like the board.The course curriculum also consists of the basics of PCB designing.Individuals also get to learn the procedure of putting out the basics of PCB design till making the final product.It also consists of the procedure of customizing out any PCB in the Altium designer after taking out the course.For learning these things you need Altium designer software in case you are a student then you can demand out for the license to use it..

COURSE OUTCOMES (COS)

- Students able to Understand a single layer and multilayer PCB and fabricate a PCB
- Students able to understand types of testing in PCB
- Able to use more powerful Altium Designer features to improve their efficiency in creating printed circuit board designs

EMENANT SPEAKER

Mr.V.HARI BABU M.TECH

Associate Professor

Prakasam Engineering College, Kandukur

CONTENT

- Basic Electronics and Components
- Basic electronic components such as capacitors, resistors, inductors, diodes, and transistors- Circuit analysis to determine the currents and voltages in an electronic circuit- We will learn how a simple circuit works.
- Basics of Altium
- Altium software is used in the electronic schematic design of PCBs-Develop and visualize PCBs in 3D- create electronic component symbols with their parameters when designing a circuit-Each electronic component has its own symbol in a circuit -To create a symbol when designing a PCB to ensure proper schematic representation-PCB is a footprint that provides a standard layout design for components in the circuit.
- PCB Design Overview
- Basic concepts-series of sequential steps with feedback loops-steps to prevent errors- Altium tools and widgets-electrical interconnections-components-Rules for PCB Design layout, placement, and schematic rules-series of layers-Stackup Design Rule Checking-EMI/EMC standards.
- PCB Manufacturing Techniques
- Different PCBs manufacturing techniques series of interrelated steps-feedback loops integrate circuit protection into a PCB design-Circuit Protection Selection Methods -potential damage to circuits-circuit method.
- Module 5-PCB Design Software Discussion
- PCB design, manufacturing, and assembly services for use in electronic engineering projects- Multilayer PCB Design Overview in Altium CAN Example with Altiumn Ground-Component Selection

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Summary report of DESIGN AND INSTALLATION OF SOLAR PHOTO VOLTAIC SYSTEMS

PRAKASAM
ENGINEERING COLLEGE

Value added course			
Document ID:	2022-23/PEC/EEE/VAC10	**Document Name:**	Report

Course Summary Report

Value added-courses in **"Design and Installation of Solar PV Systems"** were organized by the Department of Electrical And Electronics Engineering, Prakasam engineering college from 14-03-2023 to 18-03-2023. The total period of course is 31 hours. Totally, 55 students have enrolled of this course and participated during the course. The institute Principal, Dr. Ch. Ravi Kumar appreciated the Department efforts and congratulated the student for participating. Thanks to entire faculty and co-coordinator, the event was success

Students in the course obtained the following outcomes:

- Learners will be able to differentiate the various types of solar panels and its characteristics and working
- Understand the difference between standalone and grid connected system
- Design solar PV systems for small scale power generation

Co-ordinator **HOD** **Principal**

PRINCIPAL
PRAKASAM ENGINEERING COLLEGE
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Brochure of DESIGN AND INSTALLATION OF SOLAR PHOTO VOLTAIC SYSTEMS

CHIEF PATRON

Dr.K.Ramaiah

Secretary & correspondant

Prakasam Engineering college Kandukur

PATRON

Dr. CH.Ravi Kumar M.Tech.,Ph.D.

Principal

Prakasam Engineering college Kandukur

CONVENER

Mr.SK.MEERA SHAREEF M.Tech.,(Ph.D.)

Head of Department

Department of Electrical and Electronics Engineering

Prakasam Engineering college, Kandukur

Co-Ordinator

Mr.P.Yedukondalu M.Tech.

Assistant Professor

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NAAC

Value Added Course

On

VAC10 –Design and Installation of Solar PV Systems

14-03-2023 to 18-03-2023

Organized by

Department of ELECTRICAL AND ELECTRONICS ENGINEERING

Venue: SEMINAR HALL - 1

For any details, please contact

Course in-charge

Mr.P.Yedukondalu, M.Tech.

Assistant Professor

9963283978

COURSE OBJECTIVES

- Learners will be able to differentiate the various types of solar panels and its characteristics and working
- Understand the difference between standalone and grid connected system
- Design solar PV systems for small scale power generation

COURSE OUTCOMES (COS)

- Learners will be able to differentiate the various types of solar panels and its characteristics and working
- Understand the difference between standalone and grid connected system
- Design solar PV systems for small scale power generation

EMENANT SPEAKER

Mr.J.Sateesh, M.TECH(Ph.D)

Associate Professor

Prakasam Engineering College, Kandukur

CONTENT

- Introduction and Working Principle of Semiconductor Based Solar Cell Energy conversion
- photovoltaic -history of solar energy
- conversion of light energy and electricity band gap-charge and carrier semiconductor junction
- Operation Performance and Design Rules for Solar Cell
- solar cell performance- solar cell design rules properties of crystalline
- silicon(c-SI) manufacturing of c-SI- Design rule of the c-Si solar cell –
- Thin Film PV Technologies & the Third Generation PV, Thermal& Solar Fuels
- PV Technology Thin Film Silicon PV Technology film CIGS PV Technology Thin Film CdTe Technology
- solar thermal technologies solar fuel technologies
- PV system overview -PV module in a PV system
- maximum power point tracking
- M concepts and algorithms- inverters in PV systems
- storage in PV systems- batteries
- design of PV system using PV system environmental consideration of PV systems

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