Department of ECE
Summary Sheet of VALUE ADD COURSES
ACADEMICYEAR2020-21

S. No	Nameoftheworkshop/ Seminar/ Conference	Type of the Event	Resource Person Details	Number Of Participants	Course No	Date From-To
1	CYBER ATTACK DETECTION AND PREVENTION SYSTEMS	VALUE ADDED COURSE	Dr. K. SUBBA Reddy	90	2020-21/PEC/ECE/IVYEAR/VAC001	01-02-2021 to 06-02-2021
2	NANO ELECTRONICS	VALUE ADDED COURSE	Dr. V.Venkata Reddy	100	2020-21/PEC/ECE/III YEAR/VAC002	05-04-2021 to 10-04-2021
3	PCB DESIGN AND ITS APPLICATIONS	VALUE ADDED COURSE	Mr. S. SAI SANDEEP	90	2020-21/PEC/ECE/II YEAR/VAC003	17-05-2021 to 22-05-2021

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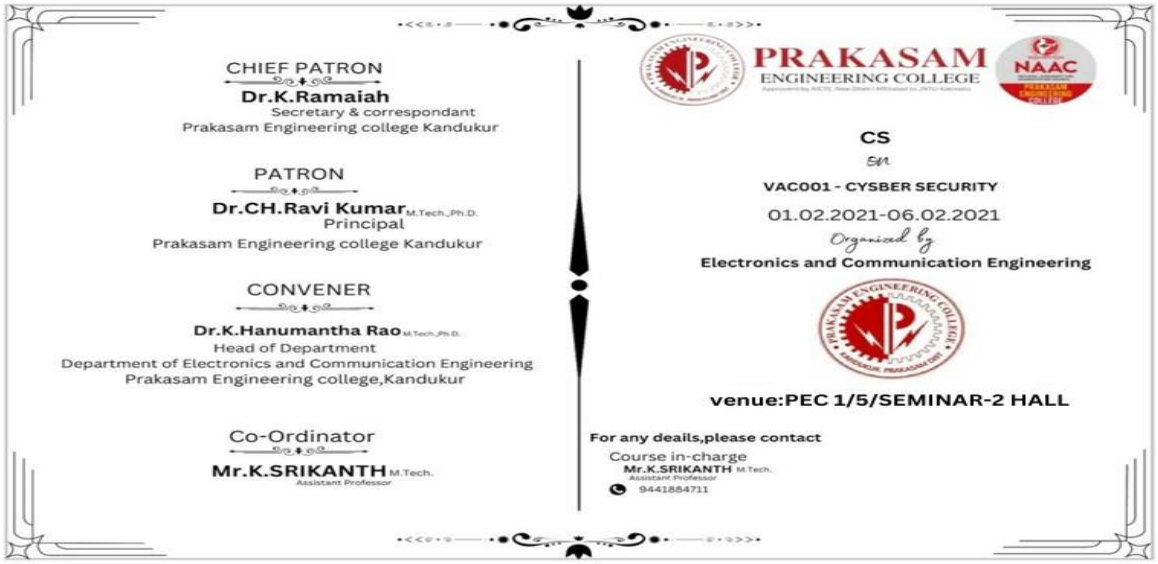
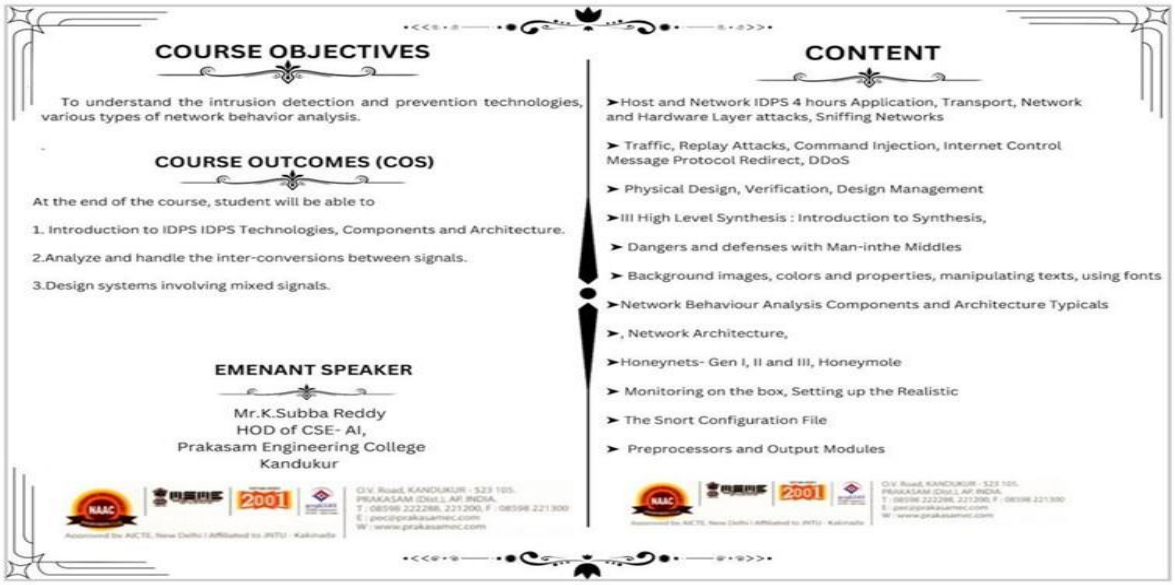
Department of ECE
BROCHERS of VALUE ADDED COURSES conducted in Academicyear2020-21

BROCHER

CYBER ATTACK DETECTION AND PREVENTION SYSTEMS 01-02-2021 to 06-02-2021





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NANO ELECTRONICS 05-04-2021 to 10-04-2021

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

Dr.K.Hanumantha Rao M.Tech.,Ph.D.
Head of Department
Department of Electronics and Communication Engineering
Prakasam Engineering college,Kandukur

Co-Ordinator

Mr.G.Suresh M.Tech.
Associate Professor

PRAKASAM ENGINEERING COLLEGE

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NAAC

Nono Electronics

on

VAC002- Nono Electronics

05.04.2021-10.04.2021

Organized by

Electronics and Communication Engineering

venue:PEC 1/5/SEMINAR-2 HALL

For any deails,please contact

Course in-charge
Mr.G.Suresh M.Tech.
Associate Professor
9985191866

COURSE OBJECTIVES

To convey the basic concepts of Nano electronics to engineering students with no background in quantum mechanics and statistical mechanics

COURSE OUTCOMES (COS)

1. Establishing infrastructure and simulations.

2. Establishing infrastructure and simulations.

3. This subject gives idea about the role and importance of the Nano electronic devices.

4. . Recent technology proceeds with MOSFET

5.The content of this course gives platform to the Nano electronics

EMENANT SPEAKER

Mr.V.Venkata Reddy
HOD OF ECE & Associate Professor
VIGNAN UNIVERSITY,GUNTUR

CONTENT

- Introduction to nanotechnology, Nano devices, Nano materials, Nano characterization, Definition of Technology node
- Overview Nano Technology and Basics of Quantum Mechanics.
- Basic CMOS Process flow, meso structures
- Dr. Babasaheb Ambedkar Technological
- 80 Basics of Quantum Mechanics: Schrodinger equation, Density of States,
- Basics of data converters;
- Successive approximation ADCs, Dual slope ADCs,
- Degeneracy, Band Theory of Solids
- Shrink-down approaches
- Introduction, CMOS Scaling, The nanoscale MOSFET, Finfets
- limits to scaling, system integration limits (interconnect issues etc.)
- Resonant Tunneling Diode
- Nano electronics Semiconductor devicess
- Quantum blockad
- Band structure and transports.
- Characterization techniques for Nano materials
- Preprocessors and Output Modules

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ENGINEERING COLLEGE

BROCHER

PCB DESIGN AND ITS APPLICATIONS 17-05-2021 to 22-05-2021

CHIEF PATRON

Dr.K.Ramaiah
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Prakasam Engineering college Kandukur

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PRAKASAM ENGINEERING COLLEGE

PCB Design

on

VAC003- PCB Design

17.05.2021-22.05.2021

Organized by

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venue:PEC 1/5/SEMINAR-2 HALL

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Course in-charge
Mr.G.Suresh M.Tech.
Associate Professor
9985191866

COURSE OBJECTIVES

This course will teach teams of students how to design and fabricate PCB for prototyping as well as in Industrial Production environment.

COURSE OUTCOMES (COS)

At the end of the course, Students can able to

1.Establishing infrastructure and simulations

2. Concept of programming the in WSN environment

3. The students will be able to

4. Understand a single layer and multilayer PCB

5. Create and fabricate a PCB

6. Evaluate and test a PCB

EMENANT SPEAKER

Mr.S.SAI SAN DEEP
VISH ISHTA I N NOVATORS,PVT
PROJ ECT MANAGER,GU NTU R

CONTENT

➤Need for PCB, Types of PCBs : Single and Multilayer, Technology: Plated Through Hole, Surface Mount, PCB Material
➤ Electronic Component packaging, PCB Designing, Fabrication, Production.
➤ Proprietary tools like Eagle, Ultiboard, Orcad and Opensource
At the end of the course, Students can able to
➤ Transmission line
➤ Forms
➤ Cross talk and Thermal management
➤ Introduction to KiCad, Schematic entry / drawing,
➤ layering, component foot print library
➤ design rules, component placing: Manual & automatic, track routing
➤ track length, angle, joint & size,
➤ Autorouter setup
➤ IPC standards for schematicn
➤ material and documentation
➤ CNC Machine, Photo-Lithography process
➤ PCB Mass Manufacturing Process: Gerber Generation,
➤ CAM, panelization, cleaning, drilling,
➤ automated optical inspection

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