



Department of ECE
Summary Sheet of VALUE ADD COURSES

ACADEMIC YEAR 2021-22

S. No	Name of the work shop/ 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	2022-23/PEC/ECE/IVYEAR/VAC001	06-02-2023 to 11-02-2023
2	5G COMMUNICATIONS	VALUE ADDED COURSE	Dr. P. PRASANNA MURALI KRISHNA	90	2022-23/PEC/ECE/IVYEAR/VAC002	20-03-2023 to 25-03-2023
3	AUDINO BASED EMBEDDED SYSTEMS	VALUE ADDED COURSE	Dr. Ch. Venu Gopal Reddy	100	2022-23/PEC/ECE/IVYEAR/VAC003	07-11-2022 to 12-11-2022





Department of ECE

BROCHERS of VALUE ADDED COURSES conducted in Academic year 2021-22

BROCHER

CYBER ATTACK DETECTION AND PREVENTION SYSTEMS 06-02-2023 to 11-02-2023



O.V. Road, KANDUKUR - 523 105.
PRAKASAM (Dist.), AP. INDIA.

T : 08598 222288, 221200, F : 08598 221300
E : pec@prakasamec.com
W : www.prakasamec.com



BROCHER

5G COMMUNICATIONS 20-03-2023 to 25-03-2023

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.S.MADHAVA RAO M.Tech.
Associate Professor

COURSE OBJECTIVES

The aim of this course is to let the students understand that air Interface is one of the most important elements that differentiate between 2G, 3G, 4G and 5G. While 3G was CDMA based, 4G was OFDMA based

COURSE OUTCOMES (CO)

At the end of the course, Students can able to

1. Identity suitable modern equipment's for planning and data processing to meet the industrial applications
2. Ability to use the various Accessories instruments and known its application and limitation

EMENANT SPEAKER

Dr. P. PRASANNA MURALI KRISHNA
HOD OF ECE AND PROFESSOR
KITS College MARKAPUR



PRAKASAM
ENGINEERING COLLEGE

Approved by AICTE, New Delhi | Affiliated to JNTU-Kakinada

5G COMMUNICATIONS

91

VACOO 1 - 5G COMMUNICATIONS

20-03-2023 to 25-03-2023

Organized by

Electronics and Communication Engineering



venue:PEC 1/5/SEMINAR-2 HALL

For any deals, please contact

Course in-charge
Mr.S.MADHAVA RAO M.Tech.
Associate Professor

8886747999

CONTENT

- Concept of Modeling requirements and scenarios
- Channel model requirements, Propagation scenarios
- Relaying multi-hop and cooperative communications: Principles of relaying
- Introduction to Multi-antenna Systems, Motivation, Types of multi-antenna systems
- Diversity, Exploiting multipath diversity, Transmit diversity, Space-time codes Space-frequency codes, Receive diversity, The rake receiver
- Introduction, NFV and SDN, Basics about RAN architecture
- High-level requirements for the 5G architecture, Functional architecture and 5G flexibility
- Enhanced Multi RAT coordination features, Physical architecture and 5G deployment
- Access design principles for multi-user communications, Orthogonal multiple-access systems, Spread spectrum multiple access systems
- Capacity limits of multiple-access methods, Sparse code multiple access (SCMA), Interleave division multiple access (IDMA)
- Radio access for massive machine type communication Network deployment types, Ultra-dense network or densification, Moving networks
- Heterogeneous networks, Interference management in 5G
- Interference management in UDN, Interference management for moving relay nodes
- Interference cancellation, mobility management in 5G
- User equipment controlled versus network-controlled



O.V. Road, KANDUKUR - 523 105.
PRAKASAM (Dist.), AP. INDIA.
T: 08598 222288, 221200, F: 08598 221300



O.V. Road, KANDUKUR - 523 105.
PRAKASAM (Dist.), AP. INDIA.
T: 08598 222288, 221200, F: 08598 221300
E: pec@prakasamec.com



O.V. Road, KANDUKUR - 523 105.
PRAKASAM (Dist.), AP. INDIA



BROCHER

AUDINO BASED EMBEDDED SYSTEMS 07-11-2022 to 12-11-2022

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.I .RAMA KOTESWARA RAO

M.Tech.
Associate Professor



PRAKASAM
ENGINEERING COLLEGE

Approved by AICTE, New Delhi | Affiliated to JNTU-Kakinada

AUDINO BASED EMBEDDED SYSTEMS

SN

VAC00 3 - Arduino based Embedded System Design

07-11-2022 - 12-11-2022

Organized by

Electronics and Communication Engineering



venue:PEC 1/5/SEMINAR-2 HALL

For any details, please contact

Course in-charge

Mr.I .RAMA KOTESWARA RAO

M.Tech.
Associate Professor

9848622648

COURSE OBJECTIVES

- The aim of this course is to let the students understand that Hardware Architecture of Arduino. Programming Tools of Arduino. Design development process for Specific Applications

COURSE OUTCOMES (CO)

At the end of the course, Students can able to

- Design and validate the interfacing of different Sensors with Arduino
- Design hardware and software for specific application using Arduino
- Development of algorithm for Traffic Light Control

CONTENT

- ARCHITECTURE REVIEW OF ARDUINO UNO BOARD
- I/O ports Capability of Arduino Uno-ADC & its features
- Interfacing of Digital Input (LED) and output devices(Switch)-Interfacing of Current sensor and LCD
- EMBEDDED C PROGRAMMING FOR ARDUINO
- Variables, Looping statements, Logical Operators, Mathematical operators, Programming with Arduino IDE, Compiling and Debugging using IDE
- DESIGN OF REAL TIME DIGITAL CLOCK USING ARDUINO
- Preparation of Bill of materials, Selection of Displays
- Design of Drivers for LED display, Development of algorithm
- Add on functions
- DESIGN OF ROOM TEMPERATURE MONITOR & VISITOR COUNTER
- Development of algorithm for monitoring and counting
- DESIGN OF TRAFFIC LIGHT CONTROLLER
- Preparation of Bill of materials, Selection of Sensors
- Development of algorithm for Traffic Light Control

EMENANT SPEAKER

Dr. Ch.Venu Gopal Reddy
HOD OF ECE AND PROFESSOR
RISE KRISHNA SAI PRAKASAM,ONGOLE



O.V. Road, KANDUKUR - 523 105.
PRAKASAM (Dist.), AP, INDIA.
T: 08598 222288, 221200, F: 08598 221300
E: pec@prakasamec.com
W: www.prakasamec.com



O.V. Road, KANDUKUR - 523 105.
PRAKASAM (Dist.), AP, INDIA.
T: 08598 222288, 221200, F: 08598 221300
E: pec@prakasamec.com
W: www.prakasamec.com

Quality Assessors
ISO 9001 : 2008 Certified

1 : 08598 222288, 221200, F : 08598 221300
E : pec@prakasamec.com
W : www.prakasamec.com

