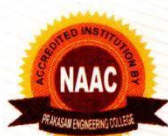




Department of ECE
Summary Sheet of VALUE ADD COURSES
ACADEMIC YEAR 2021-22

| S. No | Name of the workshop/ Seminar/ Conference | Type of the Event | Resource Person Details | Number Of Participants | Course No | Date From-To |
|-------|---|--------------------|-------------------------|------------------------|--------------------------------|--------------------------|
| 1 | SMART SENSORS | VALUE ADDED COURSE | Dr. CH.SRINIVASA REDDY | 90 | 2021-22/PEC/ECE/II YEAR/VAC001 | 18-04-2022 to 23-04-2022 |
| 2 | AUDINO BASED EMBEDDED SYSTEMS | VALUE ADDED COURSE | Dr. Ch.Venu Gopal Reddy | 90 | 2021-22/PEC/ECE/IV YEAR/VAC002 | 16-05-2022 to 21-05-2022 |
| 3 | wireless sensor networks | VALUE ADDED COURSE | Dr. D. RAJENDRA PRASAD | 100 | 2021-22/PEC/ECE/III YEAR/VAC03 | 13-12-2021 to 18-12-2021 |







PRAKASAM
ENGINEERING COLLEGE

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

BROCHER
SMART SENSORS 18-04-2022 to 23-04-2022

| | |
|---|--|
| <p align="center">CHIEF PATRON Dr.K.Ramaiah Secretary & correspondent Prakasam Engineering college Kandukur</p> <p align="center">PATRON Dr.CH.Ravi Kumar M.Tech., Ph.D. Principal Prakasam Engineering college Kandukur</p> <p align="center">CONVENER Dr.K.Hanumantha Rao M.Tech., Ph.D. Head of Department Department of Electronics and Communication Engineering Prakasam Engineering college, Kandukur</p> <p align="center">Co-Ordinator Mr.N.Sri hari M.Tech. Associate Professor</p> | <p align="center"> PRAKASAM ENGINEERING COLLEGE <small>Approved by AICTE New Delhi (Affiliated to JNTU-Kakinada)</small></p> <p align="center">Smart Sensors ON</p> <p align="center">VACOO 1 - Smart Sensors 18.04.2022-23.04.2022 <i>Organized by</i> Electronics and Communication Engineering</p> <p align="center"></p> <p align="center">venue: PEC 1/5/SEMINAR-2 HALL</p> <p>For any details, please contact Course in-charge Mr.N.Sri hari M.Tech. Associate Professor 9640881781</p> |
|---|--|

| | |
|---|---|
| <p align="center">COURSE OBJECTIVES</p> <p>The student will come to know the various stimuli that are to be measured in real life instrumentation.</p> <p align="center">COURSE OUTCOMES (COS)</p> <p>At the end of the course, Students can able to</p> <ol style="list-style-type: none"> 1. Establishing infrastructure and simulations 2. Concept of programming the in WSN environment 3. The students will be able to 4. Identity suitable modern equipment's for planning 5. Ability to use the various Accessories instruments 6. known its application and limitation <p align="center">EMENANT SPEAKER Mr. CH.RaviKumar HOD OF ECE & Associate Professor Prakasam Engineering College Kandukur</p> | <p align="center">CONTENT</p> <ul style="list-style-type: none"> ➤ Introduction to sensors and transducers .Need for sensors in the modern world. Different fields of sensors based on the stimuli ➤ various schematics for active and passive sensors. Static and dynamic ➤ Thermo-resistive, Resistance Temperature Detectors, Silicon Resistive, <p>At the end of the course, Students can able to</p> <ul style="list-style-type: none"> ➤ Temperature Sensors ➤ Optical, Acoustic ➤ Thermal Conductivity, Optical Hygrometer ➤ Introduction to KiCad, Schematic entry / drawing, layering, component foot print library ➤ Ultrasonic, Microwave Motion ➤ track length, angle, joint & size, ➤ Near-Infrared Light, Far-Infrared Motion, ➤ Position, Displacement, ➤ Gravitational, Capacitive ➤ Inductive and Magnetic, Optical, Ultrasonic ➤ Capacitive Accelerometers, Piezoresistive Accelerometers ➤ Thermal Accelerometers, ➤ Flow Sensors: Pressure Gradient Technique, |
|---|---|



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BROCHER
AUDINO BASED EMBEDDED SYSTEMS 16-05-2022 to 21-05-2022

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.Ramakoteswara Rao M.Tech.
Associate Professor



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ENGINEERING COLLEGE
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Arduino Based Embedded System Design

SM
VAC00 2 - ABED

16.05.2022-21.05.2022

Organized by
Electronics and Communication Engineering



venue:PEC 1/5/SEMINAR-2 HALL

For any deails,please contact

Course in-charge
Mr.I.Ramakoteswara Rao M.Tech.
Associate Professor
9640881781

COURSE OBJECTIVES

- Design development process for Specific Applications

COURSE OUTCOMES (COS)

At the end of the course, Students can able to

- Understand challenges and technologies for Aurdino Based Embedded Systems
- Describe the communication, energy efficiency, computing, storage and transmission
- Understand architecture and sensors

EMENANT SPEAKER

Mr.CH.Venu Gopal Reddy
HOD OF ECE &Associate Professor
RISE KRISHNA SAI
PRAKASAM,ONGOLE

CONTENT

- I/O ports Capability of Arudino Uno-ADC & its features- Interfacing of Digital Input (LED) and output devices(Switch)-Interfacing of Current sensor
- EMBEDDED C PROGRAMMING FOR ARDUINO.
- Proprietary tools like Eagle, Ultiboard, Orcad and Opensource
- Debugging using IDE
- Forms
- DESIGN OF REAL TIME DIGITAL CLOCK USING ARDUINO
- Preparation of Bill of materials, Selection of Displays,
- Development of algorithm
- DEIGN OF ROOM TEMPERATURE MONITOR & VISITOR COUNTER
- track length, angle, joint & size,
- Autorouter setup
- Preparation of Bill of materials
- material and documentation
- Selection of Sensors, Interfacing of Temperature Sensor
- Development of algorithm for monitoring and counting
- Preparation of Bill of materials
- Traffic Light Control



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PRAKASAM
ENGINEERING COLLEGE

BROCHER

wireless sensor networks 13-12-2021 to 18-12-2021

CHIEF PATRON

Dr.K.Ramaiah

Secretary & correspondent
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



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wireless sensor networks

EN

VAC00 3 - WSDD

13.12.2021-18.12.2021

Organized by

Electronics and Communication Engineering



venue: PEC 1/5/SEMINAR-2 HALL

For any details, please contact

Course in-charge

Mr.G.Suresh M.Tech.
Associate Professor

9985191866

COURSE OBJECTIVES

To make students understand the basics of Wireless sensor Networks.

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 challenges and technologies for wireless networks
5. Describe the communication, energy efficiency
6. Understand architecture and sensors

EMENANT SPEAKER

Mr.D.Rajendra Prasad
HOD OF ECE & Associate Professor
ST ANNAS CHIIRALA

CONTENT

- Single Node Architecture Hardware Component
- Network Characteristics unique constraints and challenges, Enabling Technologies
- Network Architecture Sensor Networks Scenarios
- Design Principle, Physical Layer
- Design Considerations, Optimization Goals
- Figures of Merit, Gateway Concepts
- Execution Environments
- Cross talk and Thermal management
- Tiny OS and nesC Internet to WSN Communication.
- MAC Protocols for Wireless Sensor Networks
- Low Duty Cycle Protocols And Wakeup Concepts - SMAC
- BMAC Protocol
- IEEE 802.15.4 standard and ZigBee
- IPC standards for schematic
- Mediation Device Protocol,
- Energy Efficient Routing, Geographic Routing.
- Topology Control, Clustering, Time Synchronization,
- Localization and Positioning,
- State centric programming.



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