KRISHNASAMY
College of
ENGINEERING & TECHNOLOGY
Approved by AICTE & Affiliated to Anna University
Anand Nagar, Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109, Tamil Nadu.
☎ (04142) 285 601 - 604 www.kcet.in info@kcet.in

DEPARTMENT OF ECE

11.01.2022

CIRCULAR

Ref.: KCET/ECE/VAC/CIRCULAR/2021-22/02.

The following Value Added Course will be conducted during the academic year 2021-2022. The course will be conducted from 17.01.2022 to 21.01.2022.Students are instructed to register their names in the course allotted to them.

Note: Students are instructed to attend the program without fail.

S.No.	Course Code	Name of the Course	Year	No. of Period	Course Coordinator
1	EC-VAC2101	WIRELESS SENSOR NETWORKS	IV	30	Er.V.SUDHA ,AP-ECE
2	EC-VAC2102	NETWORKS USING SENSORS	III	30	Er.S.R.KARTHIGA,AP-ECE

11/1/22
HOD/ECE

Copy to:

Class Room

Class In charge

Department File

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SYLLABUS

Subject Code: VAC2102 Subject Name: NETWORKS USING SENSORS Duration: 30 Hours

Objectives:

- Wireless Sensor Networks.
- Models for Topology Control.
- Models for mobile ad-hoc.

Module 1: 6

Challenges for Wireless Sensor Networks-Characteristics requirements-required mechanisms, Difference between mobile ad-hoc and sensor networks, Applications of sensor networks.

Module 2: 6

Single-Node Architecture - Hardware Components, Energy Consumption of Sensor Nodes, Operating Systems and Execution Environments, Network Architecture - Sensor Network Scenarios

Module 3: 6

Physical Layer and Transceiver Design Considerations, MAC Protocols for Wireless Sensor Networks, Low Duty Cycle Protocols and Wakeup Concepts - S-MAC, The Mediation Device Protocol, Wakeup Radio Concepts, Address and Name Management.

Module 4: 6

Topology Control, Clustering, Time Synchronization, Localization and Positioning, Sensor Tasking and Control.

Module 5: 6

Operating Systems for Wireless Sensor Networks, Sensor Node Hardware – Berkeley Motes, Programming Challenges, Node-level software platforms, Node level Simulators, State-centric programming.

Duration: 30 Hours

Course Outcomes: At the end of the course the student will be able to
CO1: Understand challenges and technologies for wireless networks.
CO2: Understand architecture and sensors.
CO3: Describe the communication, energy efficiency, computing, storage and transmission Understand challenges and technologies for wireless networks.

HoD/ECE

13/12/21

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