AICTE Training and Learning (ATAL)

Academy Sponsored

5 days Faculty Development Program (FDP)

on

WIRELESS EMBEDED SYSTEMS AND SENSOR NETWORKS

(1st ~ 5th June 2021)

Organized By

G H Patel College of Engineering & Technology

(A CONSTITUENT COLLEGE OF CHARUTAR VIDYA MANDAL UNIVERSITY)

Department of Electronics & Communication Engineering

Vallabh Vidyanagar – 388 120 (Gujarat)

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Register Now

https://www.aicte-india.org/atal

Coordinator

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About Institute:

G H Patel College of Engineering & Technology (**GCET**) was established in 1996, one of the premier self-finance Institute of Gujarat State as per the norms of AICTE by Charutar Vidya Mandal trust. Currently the institute is running with eight (08) disciplines at under-graduate level and nine (09) at post graduate level. The institute has excellent infrastructural facilities with ultra-modern laboratories. The institute owns highly competent and dedicated pool off faculty members. According to the latest Times Engineering survey, GCET ranks **49th position in top self-finance colleges in the country.** GCET was affiliated to Sardar Patel University from the year 1996 to 2008, Gujarat Technological University from 2008 to 2020, and from academic year 2020-21 are done under the **Charutar Vidya Mandal University** (CVMU).

About Department:

Department of Electronics & Communication was started in 1997. Post Graduate courses were started in Communication Engineering and Embedded Systems in 2007 and 2013 respectively. Right from its inception it is continuously striving to impart quality education and promoting competitive spirit among students for academic excellence. The department has well equipped laboratories with good infrastructure and highly qualified as well as experienced faculties. The department has organized various International conferences, workshops, seminars for the benefit of engineering students, faculty members and professional engineers. Department received AICTE – MODROB grant for IoT & WSN laboratory, and R&D project grant worth rupees 20 lakhs from various agencies like GUJCOST and CSIR. **The Department has been accredited by NBA for 6 years since 2015**.

About FDP:

The convergence of the Internet, communications, and information technologies, coupled with recent engineering advances, is paving the way for a new generation of inexpensive sensors and actuators, capable of achieving a high order of spatial and temporal resolution and accuracy. The technology for sensing and control includes sensor arrays, electric and magnetic field sensors, seismic sensors, radio-wave frequency sensors, electrooptic and infrared sensors, laser radars, and location and navigation sensors. Advances in the areas of sensor design, materials, and concepts will further decrease the size, weight, and cost of sensors and sensor arrays by orders of magnitude and will increase their spatial and temporal resolution and accuracy. In the very near future, it will become possible to integrate millions of sensors into systems to improve performance and lifetime and decrease life-cycle costs. According to current market projections, more than half a billion nodes will ship for wireless sensor applications in 2021. The technology for sensing and control now has the potential for significant advances, not only in science and engineering, but equally important, on a broad range of applications relating to critical infrastructure protection and security, health care, the environment, energy, food safety, production processing, quality of life, and the economy. In addition to reducing costs and increasing efficiencies for industries and businesses, wireless sensor networking is expected to bring consumers a new generation of conveniences, including, but not limited to, remote controlled heating and lighting, medical monitoring, automated grocery checkout, personal health diagnosis, automated automobile checkups, and child care.

Course Content:

- Wireless Embedded Systems: Applications, challenges, and open issues
- Sensor Network: Wired and Wireless
- Wireless Network: Operating Environment & Trends
- MAC Protocols for WSN: ZigBee Alliance Platform for WSN & Multidisciplinary Research
- Routing Protocols for WSN: Design, Challenges & Strategies
- Network management for WESN
- Industrial WESN Standards
- Security Aspects of WESN
- Industrial Visit and Demonstrations
- Spiritual Networking
- Hands-on Session

Target Participants / Eligibility

Faculty members working in AICTE recognized Institutions, University Departments, and Research scholars.

Test and Certificate

*Test will be conducted at the end of the program. e-certificate will be issued to participants who acquire minimum **80% attendance** in **online FDP** and score **60% marks in test**.*

Feedback on the ATAL portal is also mandatory to the get the e-certificate.

How to apply

Please note that **No Registration Fees**. However, registration is compulsory and will be done through a single webpage https://www.aicte-india.org/atal

Maximum of 200 participants will be allowed to attend the online FDP based on short listing.

IMPORTANT DATES

Last date of application: **28/05/2021**
Intimation of selection: 3**0/05/2021**

Resource Persons

Eminent personalities with expertise in related fields from IIT's, NIT's, and industry experts along with our own stake holders will form the core faculty for delivering lectures and conducting hands-on sessions during the program.

FOR FURTHER DETAILS CONTACT

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