

About the College

Geethanjali College of Engineering and Technology (GCET) was established in the year 2005 under the aegis of Teja Educational Society with a sole objective of providing quality technical education accessible and affordable to youth of our nation. The college has excellent infrastructural facilities and modern laboratories. It also has highly competent and dedicated faculty. College has been recognized as an R&D centre by Scientific and Industrial Research Organization (SIRO). The college offers Undergraduate programs in engineering branches, namely, CSE, IT, ECE, EEE, ME and CE with a total intake of 960 students. AICTE recently has sanctioned four new programs in B.Tech (CSE) with specialization in Artificial Intelligence and Machine Learning, Data Science, IoT and Cyber Security. Four of its undergraduate programs, namely, CSE, ECE, EEE and ME have been accredited by NBA. The college is accredited by NAAC with a score of 3.36 in June 2017, which is the highest score at that time by any institution that has gone for accreditation for the first time in both states of TS and AP. The college was conferred "Autonomous" status by UGC with effect from AY 2016-17. It has got ISO 9001:2008 certification. The college also offers postgraduate program in MBA with an intake of 60 students and M.Tech program with Computer Science specialization in department of CSE. It has been sponsored research projects from UGC, DST, DRDO and JNTUH-TEQIP. The college has received grants for EDC, FDP and MODROBS by AICTE. More than 80% of eligible students are being placed in several MNCs. College has entered into MoUs with several reputed organizations for mutual benefits such as students projects, expert lectures, industrial visits etc.

Brief profile of ECE Department

The Department of Electronics and Communication Engineering (ECE) was started in the year 2005 with an initial intake of 60 students. Right from its inception it is

continuously striving to impart quality education and promoting competitive spirit among students for academic excellence. The intake was enhanced to 240 w.e.f 2013-14 academic year. The department has well equipped laboratories, good infrastructure, highly qualified and experienced faculty. A good number of technical papers are being published by the faculty in National/International Journals. The department has MOUs with various organizations to provide real time training to the students. The two Centres of Excellence (CoE) in VLSI and IoT & Embedded Systems are providing the necessary training for the students in core areas. The department has successfully completed two DST sponsored research projects and has two ongoing research projects sponsored by DRDO. The department was sanctioned projects under MODROBS by AICTE. A few faculty members have published patents in the fields of image processing and microwave engineering. The department is extending research consultancy services to M/s VEM Technologies Pvt.Ltd in the field of microwave engineering.

Aim of the Program

Internet of Things is one of the emerging areas at present. This FDP being organized under CoE (IoT & ES) is designed specially to faculty members, research scholars and industry people to acquire skills in using IoT platform and also to fulfill the requirements of IoT professionals in industries. The program aims at giving a comprehensive coverage of theory and hands-on experience on IoT basic concepts, various IoT platforms, development boards, sensors and actuators, communication interfaces like WiFi, Bluetooth, Zigbee, GPRS, GSM and LORAWAN, IOT communication protocols like HTTP, MQTT, Cloud platform and Python programming.

Registration Fee

No registration fee for participation. Maximum 200 participants are allowed to attend online FDP on a first come first serve basis.



AICTE Training And Learning (ATAL) Academy sponsored 5 -Day Online Faculty Development Program on "IoT and its Applications"

01-05 December 2020

Organized
By

Department of
Electronics and Communication Engineering



**Geethanjali
College of Engineering and Technology**

(Accredited by NAAC with 'A' grade & NBA, UGC Autonomous
Institution and permanently affiliated to JNTUH)

Cheeryal (V), Keesara (M), Medchal (Dist.),
Telangana State- 501301

Visit us: www.geethanjaliinstitutions.com

Course Contents

- Introduction to Latest Trends and Research Areas in IoT
- Basics of IoT, Exposure on various IoT development Boards
- Arduino programming
- Basics of Sensors and Actuators
- Implementation of communication technologies for IoT
- Implementation of IoT communication Protocols like MQTT, HTTP etc.,
- Python Programming
- Introduction to IoT Platforms (IBM Watson IoT Platform), Devices, application connectivity models and API integrations
- Explore IBM Cloud & IBM Watson Services, Create Boards & Cards for Data visualization by connecting online simulator, and Explore python client library for IBM IoT platform and send data to IBM device
- Develop applications using Node-RED.
- Build an application to send/Receive event to and from an IoT device.
- Build a Web Dashboard to display sensor data.
- IoT-Data mining and Machine learning
- IoT and its real time applications

Resource Persons

Eminent personalities with expertise in related fields from IITs, NITs, HCU and stake holders from different organizations like Hanbit Automation Technologies, Vidcentum R & D Pvt. Ltd., and Smart bridge Technologies, will form the core faculty for delivering lectures and conducting hands-on sessions during the program.

ORGANIZING COMMITTEE

Chief Patron

Sri.G.R. Ravinder Reddy
Secretary

Patron

Dr.S.Udaya Kumar
Principal

Convener

Dr.S.Suryanarayana,
HOD-ECE

Coordinator

Mrs.M.Laxmi
Associate Professor, ECE

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Prof. B. Hari Kumar, Dean, SE & CE

Dr. R. Suryanarayana Raju, Dean(R&D)

Dr. P. Vijai Bhaskar, Dean(Academics)

Dr. P. Srihari, Professor, ECE

Dr. B. L. Prakash, Professor, ECE

Prof. O.V.P.R. Siva Kumar, Professor, ECE

Prof. S. Bhujanga Rao, Professor, ECE

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Ms.B.Sreelatha, Associate Professor

Ms.M.Umarani, Assistant Professor

Mr.Ch.Sandeep, Assistant Professor

Mr.M.Anand, Assistant Professor

Mr.P.Chandraprakash Reddy, Assistant Professor

Ms.A.R.L.Padmaja, Assistant Professor

Target Participants/ Eligibility

Faculty from AICTE approved engineering colleges and institutions, and R&D organizations with basic degree in Electronics and Communication Engineering, Electrical and Electronics Engineering, Electronics and Instrumentation Engineering, Electronics and Computer Engineering and those who are associated with Embedded Systems and Internet of Things.

Test and Certificate

Test will be conducted at the end of the program. E-certificates will be issued to participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the Online Test. Feedback on the ATAL portal is also mandatory to get the Certificate.

How to apply

Registration can be done through AICTE-ATAL portal only.

www.aicte-india.org/atal

For further details contact:

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IoT and its Applications – Tentative DAYWISE SCHEDULE

Day/Sessions(Time)	Session 1 (9.00 AM to 11 AM)		11.00 AM to 11.15AM	Session 2 (11.15 AM to 1.15PM)	1.15 PM to 1.45PM	Session 3 (1.45PM to 3.45PM)
01-Dec-20	Inaugural Function	Latest Trends and Research Areas in IoT (Mr.PVS.Maruthi Rao, CEO, Vidcentum R & D Pvt. Ltd)	TEA BREAK	IoT Basics ,Arduino Board and Smart sensors for IOT Applications(Prof.K.S.Rao Dean SA,GCET)	LUNCH BREAK	Hands-on practical: IoT Arduino Projects using Tinkercad.(Mr.Ch.Sandeep, Assistant Professor,GCET)
02-Dec-20	Overview of Communication Technologies for IoT short range and long range (Mr.Phani Kumar Varanasi ,Founder,CEO, Hanbit Automation Technologies)			IoT communication protocols Divya Nemuri, IoT developer, Smart bridge Technologies)		Hands-on Practical : Http and Mqtt Protocols (Divya Nemuri , IoT developer, Smart bridge Technologies)
03-Dec-20	Introduction to python programming for IoT Applications (Dr.S.Nagendra Kumar, Associate Professor, University of Hyderabad)			IBM Watson IoT Platform, Devices and application Connectivity models. API integrations (.Divya Nemuri , IoT developer, Smart bridge Technologies)		Hands-On Practical: Explore IBM Cloud & IBM Watson Services, Create Boards & Cards for Data visualization by connecting online simulator, and Explore python client library and send data to IBM device (Ms.Divya Nemuri, IoT developer, Smart Bridge Technologies)
04-Dec-20	IoT- Data mining and Machine learning (Dr.Rajendra Pamula, Assistant Professor, IIT-Dhanbad)			Develop Applications with Node RED programming tool (Mr.Suryatej, IoT developer, Smart bridge Technologies)		Hands-On Practical: Build an application to send and receive event to and pro from an IoT Device, and Build a web dashboard to display sensor data (Mr.Suryatej, IoT developer, Smart bridge Technologies)
05-Dec-20	IoT and its Real time applications (Dr Satya V- Intel,Ireland)			Stress Management (Ms.A. Shobha Devi,Yoga Teacher, Ramakrishna Mutt)		Examination Based on “IoT and its Applications” and closing Ceremony

