REGISTRATION FORM

1. Name:
2. Date of Birth & Age:
3. Gender(M/F):
4. Qualification:
5. Teaching/Industry Experience:
6. a) Designation:
   b) Department:
7. a) Institution:
   b) Address of Institution:

   c) Affiliating University
8. Address for Correspondence:

9. Mobile No.
10. E-mail Id:

Important dates:

Last Date of Registration:	15th Nov'19
Announcement of selected candidates:	18th Nov'19
Schedule of the event:	25th - 30th Nov'19

Eligibility:

- ❖ Academicians in any discipline from the engineering institutions
- ❖ Industry Personal
- ❖ Research Scholars

Registration Fee: Free

Selection will be based on First Come First Serve basis subject to a maximum of 40 participants.

Accommodation: Twin/Three sharing accommodation will be provided for outstation participants on first come first serve basis.

Travelling Allowance: Travelling allowance (Sleeper class train or bus fare by shortest route) will be reimbursed to outstation participants as per norms on submission of original tickets.

Online Registration Link:

https://forms.gle/jh6rvJ82cK6zEY288

All the participants have to send scanned copies of sponsorship letter, declaration and a Demand Draft of Rs.1000/- drawn in favor of 'Principal, GNITS', Payable at Hyderabad to e-mail id given below, However, DD shall be returned to the first 40 participants.

Address for all Correspondence
Dr. K. Ragini (Coordinator)
Professor, ECE, GNITS, Shaikpet, Hyderabad-104
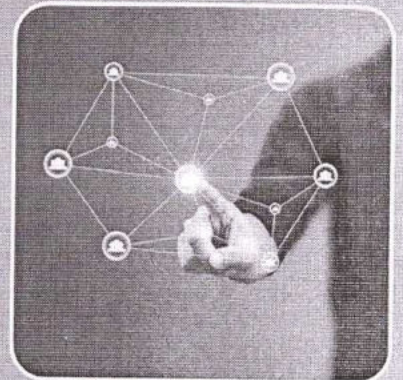Mobile: 9849627161 / 9966437906
E-mail: gnits.sttp.ece@gmail.com

**AICTE Sponsored
Short Term Training Programme
(STTP)
On**

Embedded Systems in Internet of Things (IoT)
(25th to 30th November 2019)

Organized by
**DEPT. OF ELECTRONICS AND
COMMUNICATIONS ENGINEERING**
G. NARAYANAMMA INSTITUTE OF
TECHNOLOGY & SCIENCE (FOR WOMEN)
(Autonomous)
ISO 9001:2015 Certified, Approved by AICTE,
New Delhi & Affiliated to JNTUH, Accredited by
NBA &NAAC
Shaikpet, Hyderabad, T.S.
www.gnits.ac.in

PRINCIPAL
G. Narayanamma Institute of
Technology & Science (for women)
(AUTONOMOUS)
Shaikpet, Hyderabad - 500 104

IoT

About the Institute

G. Narayanamma Institute of Technology & Science, a leading engineering college in Hyderabad for women founded by Late Sri G. Pulla Reddy garu in 1997, with the objective of providing an excellent learning facility for women to pursue education in engineering. The institute aims to promote Technical Education among Women to enhance and build-up a new generation of thinkers, innovators and planners in the technical realms of Science & Technology. GNITS received UGC autonomous status for 10 years from 2018 and is affiliated to Jawaharlal Nehru Technological University (JNTU-H). Hyderabad. It is approved by All India Council for Technical Education (AICTE), accredited by NAAC & NBA (AICTE) and ISO 9001:2015 Certified Institution.

About Dept. of ECE

ECE Department was started in 1997 with an intake of 60 and in a short period, the intake was increased to 180. The Department introduced M.Tech with Specialization of Digital Electronics & Communication Engineering in 2007 with an intake of 18 students. There are 6 Doctorates in the Department. For the academic year 2018-19, the department received 25 lakhs of funding through AICTE. An amount of more than 2 crores is spent so far for establishment of labs. The Infrastructural facilities have been upgraded in the department with the extension of existing and new laboratories in the fields of VLSI, Communications, Microwave and Signal processing domains.

About AICTE-STTP

Short Term Training Programme (STTP) intends to conduct faculty trainings through financial assistance from AICTE to enable faculty members in the field of technical education to introspect and learn techniques that can help prepare students for active and successful participants in a knowledge society.

IS

The objectives of this Short-Term Training Programme are:

❖ To provide an extended knowledge on IoT applications.

❖ To explore latest research works going on in the field of embedded systems and IoT technology.

❖ Hands on various Smart device applications through IoT platform.

Contents

➢ Building Smart Device with ARM.
➢ ARM based IoTs by CDAC: UbiMote in Linux Environment.
➢ Introduction to Industrial Internet of Things
➢ IoT Gateway Architectures
➢ Smart Sensors for IoT
➢ Communication Technologies for IoT
➢ IoT platform Architectures
➢ Wireless Sensor Network for IoT Applications
➢ Best Practices for IoT Security

Resource Persons

Dr., P.S. Sai krishna, IIT Tirupati

Dr. Sachin Chaudhari, IIITH

Sri. N. Venkatesh, Sr. Vice President, Redpine Signals

Sri. P.V.S.Maruthi Rao, Founder Director, Vidcentum R&D Pvt. Ltd.

Mr. Amarendra Katakam, Director & CEO, SmartBridge

Mr. G.Sudheer, Technical Manager, Votary Tech.

Mr. Veerababu P, Quality Security Engineer, Creston S/w

Practical Hands on from leading industry personnel.

FUTURE

Chief Patrons:
Sri. P. Subba Reddy, Chairman
Smt. G. Srividya Reddy, Vice Chairman
Chairman:
Dr. K. Ramesh Reddy, Principal
Organizing Committee:
Convener:
Dr. B. Venkateshulu, Professor, HOD-ECE
Coordinator:
Dr. K. Ragini, Professor, ECE
Co-coordinators:
Mrs. A. Deepthi, Asst.Professor, ECE
Mrs. T. Srilatha, Asst.Professor, ECE
Mrs. G. Madhavi, Asst.Professor, ECE

Sponsorship Certificate

Certified that ....is a regular employee of our institution .... since .... and is hereby sponsored for the STTP on "Embedded systems in IoT", at GNITS, Hyderabad during the period 25th to 30th Nov'19. He/She will be permitted to attend the course without fail, if selected.

Signature of the Principal/Director with seal

Place:

Date:

Declaration

The information furnished above is true to the best of my knowledge. I agree to abide by the rules and regulations governing the course. If selected, I shall attend the course definitely for the entire duration. I also undertake the responsibility to inform the Course Coordinator sufficiently in advance (one week before), in case if I am unable to attend the course.

Place:

Date:

Signature of the applicant

Name of the applicant:

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A One Week AICTE Sponsored STTP on "Embedded Systems in IOT" (25-11-19 to 30-11-19)

S.No/Date	9.00 AM to 10.30 AM Session – I		10.30 AM to 10.45 AM	10.45 AM to 12.15 PM Session – II	12.15 PM to 1.00 PM	1.00 PM to 2.30 PM Session – III	2.30 PM to 2.45 PM	2.45 PM to 4.15 PM Session - IV
25-11-2019 (DAY-1)	Registration & Inaugural	Introduction to Internet of Things(IOT)	T E A B R E A K	Deep drive into IoT Technology Stack	L U N C H B R E A K	Physical Electronic Devices - Smart Devices	T E A B R E A K	Introduction and Demo on ARM based IoTs by CDAC: UbiMote in Linux Environment
	Dr.P.S.Sai Krishna,IIT-T			Dr.P.S.Sai Krishna,IIT-T		Dr.P.S.Sai Krishna,IIT-T		Dr.P.S.Sai Krishna,IIT-T
26-11-2019 (DAY-2)	Communication Technologies for IoT Short Range & Long rage Communication technologies System on Chips & Wireless Radios			Introduction to Industrial Internet of Things (IIOT)		Introduction to ARM based IoTs by CDAC: WiFi and BLE Motes		Demo on ARM based IoTs by CDAC
	Dr.Sachin Chowdary,IIITH			Dr.P.S.Sai Krishna,IIT-T		Dr.P.S.Sai Krishna,IIT-T		Dr.P.S.Sai Krishna,IIT-T
27-11-2019 (DAY-3)	Introduction to Edge/Fog Computing			IOT Gateways Edge Computing		Communication Protocols for Data Exchange in IoT		Hands-on practicals
	Dr.P.S.Sai Krishna,IIT-T			Sri P.V.S.MaruthiRao,Founder Director,Vidcentum R&D Pvt.Ltd		Abhishek GD,Cloud Developer, Smart Bridge		Abhishek GD,Cloud Developer, Smart Bridge
28-11-2019 (DAY-4)	Introduction to IoT Platforms			API & Device Management		Implementing IoT Platform SDK's in Embedded Devices		Analytics at IoT Platform
	Mr.Amarender K Director,CEO,Smart Bridge			Mr.Amarender K Katakam,Director,CEO,Smart Bridge		Pradeepti D, Sr.IOT Developer, Smart Bridge		Pradeepti D, Sr.IOT Developer, Smart Bridge
29-11-2019 (DAY-5)	Protocol Stack of IEEE802.15.4& IEEE802.15.11 for PANS			Wireless Sensor Networks for IoT Applications		Embedded System for WSN nodes		Energy Harvesting Principle for WSN Self Healing Properties
	Mr.G. Sudheer ,Technical Manager, Votary Tech			Sri N.Venkatesh,Sr.Vice President,Redpine signals		Surya Teja M, Sr.IOT Developer, Smart Bridge		Surya Teja M, Sr.IOT Developer, Smart Bridge
30-11-2019 (DAY-6)	Introduction to IoT Security			Embedded IoT Security		Examination based on EMBEDDED SYSTEMS IN IOT		Valedictory Session
	Mr.Veerababu P,Quality Security Engineer,Creston S/W			Mr.Veerababu P,Quality Security Engineer,Creston S/W				

Dr.K.Ragini
Professor, ECE
STTP Coordinator

Dr.B.Venkateshulu
Professor& HOD-ECE
STTP Convener

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Department: Electronics and Communication Engineering

2019-20

REPORT

FDP on "Embedded systems on IoT"

Date of program: 25.11.2019-30.11.2019

Resource person: Dr.P.Sai Krishna from IIT-T, Dr.Sachin Chaudhari from IITH, P.V.S.Maruthi Rao, Founder Director, Vidcentum R&D Pvt. Ltd, Amarender K founder of Smart Bridge, G.Sudheer,Tech Manager at Voltary Solutions Pvt.Ltd, Veerababu P, Quality Security Engineer.

About the Program: The Embedded Systems on IOT is an AICTE-STTP with the objectives of providing an extended knowledge on IoT applications, to explore latest research works going on in the field of embedded systems and IoT Technology and hands on various Smart device applications through IoT platform. Eminent resource persons from IIT'S and various companies presented lectures on IoT Platform, Applications and Security.

DAY1 Dr.P.Sai Krishna from IIT-T gave a key note address on the topic fog computing and its applications.He also explained about introduction to IoT and ARM based IOT devices.

DAY2 Dr.Sachin Chaudhari from IITH presented a session on Communication Technologies for IoT short range and Long range Communication technologies,System on chips&Wireless Radios.

DAY3 P.V.S.Maruthi Rao, Founder Director, Vidcentum R&D Pvt. Ltd presented a session on IoT Edge systems which contained classification of IoT Applications, What are the customer's expectations on IoT edge,How Assets acts as Things.

DAY4 Amarender K founder of Smart Bridge delivered session on IoT Platform and its Architecture and how weather information can be shared from device to cloud and desired location by creating an app IBM Watson platform.

DAY5 G.Sudheer,Tech Manager at Voltary Solutions Pvt.Ltd delivered presentation on Wireless Personal Area Networks(WPAN)architecture and its applications.He also explained about Bluetooth Mfodule,BLE,WiFi and how they differ with technology. Next half session handled by N.Venkatesh, vice president from redpine signals taken a session on Wireless sensor networks and its significance in IoT.

DAY6 Veerababu P, Quality Security Engineer, Creston S/w delivered a lecture on Massive Botnet attack, Pacemaker and IoT in security.

Outcomes of the program are

Wider understanding on low power wireless personal area networks, Bluetooth low energy networks, Embedded Systems for WSN nodes, applying energy harvesting principle are considered as impact assessment from the training.

Signature of the Faculty member

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