

# Workshops/Conferences

**VTU TEQIP 1.3 Sponsored**  
**2-day Faculty Development Programme**  
**on**  
**IoT Industrial Applications**  
**– Frontend and Backend Co-design**

**29<sup>th</sup> and 30<sup>th</sup> April 2019**

# Highlights of the FDP

VTU-TEQIP 1.3 Sponsored 2-day Faculty Development Program on ‘IoT Industrial Applications – Frontend and Backend Co-design’ started with an inaugural function graced by Dr. H N Shivashankar, Director, RNSIT, Dr. M K Venkatesha, Principal, RNSIT & Dr. G T Raju, vice principal, RNSIT.

Chief Guest for the inaugural function was **Mr. Gokulmuthu Narayanaswamy** from Itron who addressed the gathering and presented a keynote on IoT Deployment Ecosystem.

## Event Co-ordinators

**Dr. Vipula Singh** Professor and HoD, ECE Dept,

**Dr. Andhe Pallavi**, Professor and HoD, EIE Dept and

**Dr. S Sumathi** Associate Professor and HoD, EEE Dept., RNSIT.



VTU TEQIP 1.3 Sponsored  
Faculty Development Programme on  
"IoT Industrial Applications  
- Frontend and Backend Co-design"



### Patrons

**Dr. Karisiddappa**  
Vice Chancellor, VTU

**Dr. R N Shetty**  
Chairman, RNSIT

**Dr. Satish Annigeri**  
Registrar(Eval), VTU

**Dr. H N Shivashankar**  
Director, RNSIT

### Organizing Committee

**Dr. M K Venkatesha**  
Principal

**Dr. G T Raju**  
Vice-Principal

**Dr. Vipula Singh**  
HoD, Department of ECE

**Dr. Andhe Pallavi**  
HoD, Department of EIE

**Dr. S Sumathi**  
HoD, Department of EEE



**HYDAC**

#### For Correspondence

**Dr. Sharada Prasad N**  
Mob: 89717 04460  
Email: rnsit.fdp.iot@gmail.com



### Tentative Program Schedule

**Day 1: Monday 29-04-2019; Industry Experts from Hydac**

09:00 - 10:45 am	Inauguration and Keynote Address on IoT Ecosystem
11:00 - 12:00 pm	Java Basics and Programming
12:00 - 12:30 pm	Hands-on Programming
01:30 - 03:00 pm	Beacon Sensors and Android Studio IDE – Introduction and programming
03:15 - 05:30 pm	IoT App Development based on Beacon Sensors, Java and Android IDE

**Day 2: Tuesday 30-04-2019; Industry Experts from Fiabilite**

09:00 - 10:45 am	Talk on Python, ARM Processors & IoT – State of the Art
11:00 - 12:30 pm	OS – Introduction and deployment on ARM Processors; Python Programming Introduction specific to ARM processors – Raspberry Pi
	Demo/Hands-on Programming
01:30 - 03:00 pm	Demo of Scheduler Creation and IoT – backend Programming
03:15 - 05:30 pm	Hands-on Programming in IoT Applications using Python, Cloud & Raspberry Pi

#### Vision of RNSIT

Building RNSIT into a world-class institution.

#### Mission of RNSIT

To impart quality education in Engineering, Technology and Management with a difference, enabling students to excel in their career by

- + Attracting quality Students and preparing them with a strong fundamentals so as to achieve distinctions in various walks of life leading to outstanding contributions
- + Imparting value based, need based, choice based and skill based professional education to the aspiring youth and carving them into disciplined, World class Professionals with social responsibility
- + Promoting excellence in Teaching, Research and Consultancy that galvanizes academic consciousness among Faculty and Students
- + Exposing Students to emerging frontiers of knowledge in various domains and make them suitable for Industry, Entrepreneurship, Higher studies, and Research and Development
- + Providing freedom of action and choice for all the Stake holders with better visibility

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VTU TEQIP 1.3 Sponsored  
Faculty Development Programme



## IoT Industrial Applications - Frontend and Backend Co-design

**April 29 - 30, 2019**

### in Association with

Visvesvaraya Technological University  
Belagavi, Karnataka

Aryabhatta Knowledge University  
Patna, Bihar

Biju Patnaik University of Technology  
Rourkela, Orissa



**Jointly organized by Departments of  
Electronics & Communication Engineering  
Electronics & Instrumentation Engineering  
and  
Electrical & Electronics Engineering**

## RNS Institute of Technology

(AICTE Approved, VTU Affiliated and NAAC 'A' Grade Accredited)

(UG Programs - CSE, ECE, ISE, EIE and EEE have been  
Accredited by NBA for the Academic years 2018-19, 2019-20 and 2020-2021 )

**Dr. Vishnuvardhan** Road, Channasandra  
Rajarajeshwari Nagar Post, Bengaluru - 560 098  
Telephone : 080-28611880/1

Website : [rnsit.ac.in](http://rnsit.ac.in)



VTU TEQIP 1.3 Sponsored  
Faculty Development Programme on  
"IoT Industrial Applications  
- Frontend and Backend Co-design"  
April 29 - 30, 2019



## Registration Form

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Department : \_\_\_\_\_

Qualification : \_\_\_\_\_

Address for Communication: \_\_\_\_\_

Phone : \_\_\_\_\_

Email : \_\_\_\_\_

Signature of the Principal

- Faculty from VTU affiliated Engineering colleges in the Departments of CSE, ECE, EEE, EIE, ISE and TCE are eligible. Outstation participants are expected to make their own lodging arrangements. Lunch and snacks will be provided to all participants.
- Last date for Registration: **25<sup>th</sup> April 2019**.
- **Registration fee : ₹ 600.**
- **Mode of payment:** Online Payment
- **Beneficiary:** **Principal, RNSIT**  
A/c no. : 8574 1010 50101 IFSC : CNRB0008574  
Bank: **Canara Bank, RNSIT Campus Branch**
- Number of participants is limited to 40 on a first come first serve basis. Participants are requested to confirm seat availability before making payment.

Please send the scanned copy of registration form by E-mail to  
**rnsit.fdp.iot@gmail.com**

## Visvesvaraya Technological University



Visvesvaraya Technological University (VTU) is one of the largest Technological Universities in India with 21 years of tradition of excellence in Engineering & Technical Education, Research and Innovations. VTU came into existence in the year 1998 to cater to the needs of Indian industries for trained technical manpower with practical experience and sound theoretical knowledge. University has very successfully achieved the tremendous task of bringing together various colleges affiliated earlier to different Universities. The University having 218 affiliated colleges, 1 constituent college and 17 Autonomous colleges with undergraduate courses in 35 disciplines, PG programmes in 94 disciplines and Ph. D & M.Sc(Engg.) by Research programmes in 592 departments, has over 4 lakhs Engineering Students studying in various institutes affiliated to the University. The University has 13 Quality Improvement Programme (QIP) centers in various affiliated colleges and 16 extension centers for offering PG programs. VTU has four regional centers across the State of Karnataka in Bengaluru, Belagavi, Kalaburagi and Mysuru. University is a multi-disciplinary and multi-level institution offering wide ranging programmes in Engineering, Technology and Management.

The TEQIP Project focuses on the following objectives:

- Improving quality and equity in engineering institutions in focus states viz., Seven Low Income States (LIS), eight states in the North-East of India, three Hill states viz., Himachal Pradesh, Jammu & Kashmir, Uttarakhand and Andaman and Nicobar Islands.
- System-level initiatives to strengthen sector governance and performance which include widening the scope of Affiliating Technical Universities (ATUs) to improve their policy, academic and management practices towards affiliated institutions.
- Twinning Arrangements to Build Capacity and Improve Performance of institutions and ATUs participating in focus states.

As a twinning partner VTU is conducting various activities to improve quality of education in affiliated colleges and mentee university partners namely Aryabhatta Knowledge University, Patna and Biju Patnaik University of Technology, Rourkela.

## RNS Institute of Technology



RNS Institute of Technology (RNSIT) is serving the cause of Technical Education since two decades. The institution is **AICTE Approved, VTU Affiliated and NAAC 'A' Grade Accredited**. **UG Programs - CSE, ECE, ISE, EIE and EEE have been Accredited by NBA for the Academic years 2018-21.**

The College offers B.E. Degree, Post Graduation in M.Tech/ MBA/MCA and Ph. D. Research Programmes. Six of the Departments are recognized to carry out Research. Strong and disciplined work culture is our pride. Quality Teaching, happy and conducive environment is our strength. Placement is our Unique Selling Proposition. RNSIT has academic MOUs with various leading corporates for innovation, incubation, internships, research, projects and hands on experience.

### About FDP

This FDP covers the broad areas of IoT and embedded programming. The participants will gain an understanding of IoT concepts involved in both Frontend and Backend Design of applications. They will be exposed to advanced embedded programming using Python and deployment of OS on ARM processors. This FDP will enhance their fundamental knowledge in building Custom-specific IoT Applications using Android Studio, Java and Beacon sensors.

### Objectives of FDP

- To cover basic concepts and programming in Java and Python (Top two programming Languages in the world).
- To present the concepts involved in the IoT Ecosystem.
- To enhance the embedded programming skills (from present day embedded C and ALP) to hands-on Python Programming of ARM processors.
- To build customized motes by exposure to deployment of chosen Operating System (OS) on ARM processors and developing a simple scheduler.
- To expose participants to present-day industry expectations by:
  - Introduction to IoT sensors – Estimote Beacon Sensors.
  - Development of Java based Apps using Android Studio IDE.
  - Creating IoT solutions for specified applications.

# Programme Schedule

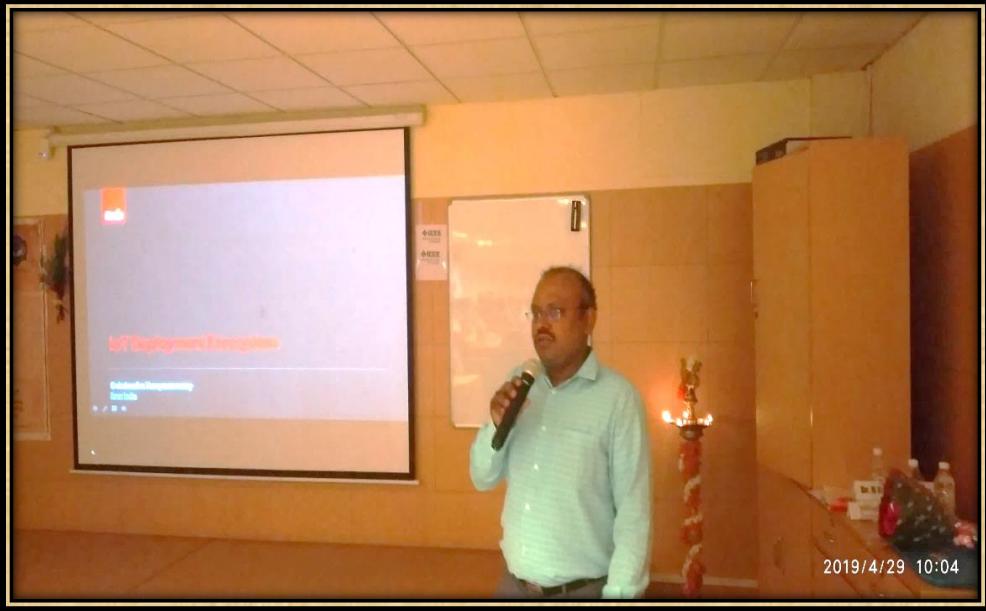


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# VTU -TEQIP 1.3 Sponsored FDP - 2019 held at RNSIT



# VTU -TEQIP 1.3 Sponsored FDP - 2019 held at RNSIT



# National Conference



Papers Presented: 44

# CRITEI 2013

## A one day conference on Recent Trends in Industrial Electronics and Instrumentation

### On June 17 2013





## CRITEI 2013 Review Committee

**Dr. Vipula Singh, Prof.,& HoD, Dept., of ECE**

**Dr. Andhe Pallavi, Prof., & HOD, Dept., of I.T**

**Prof. Sumathi. S, HOD, Dept., of EEE**

**Prof. Rashmy Deepak, EEE**

**Prof. Sridhar S, EEE**

**Prof. Usha B S, ECE**

**Prof. Prakash Tunga, ECE**

**Prof. M.S.Ohileshwari, ECE**

**Prof. Manohar P, I.T**

**Prof. P Latha , I.T**

# Internship

# 4-weeks IoT Internship by Fiabilte Network Solutions Pvt Ltd

09-07-2018 to  
03-08-2018

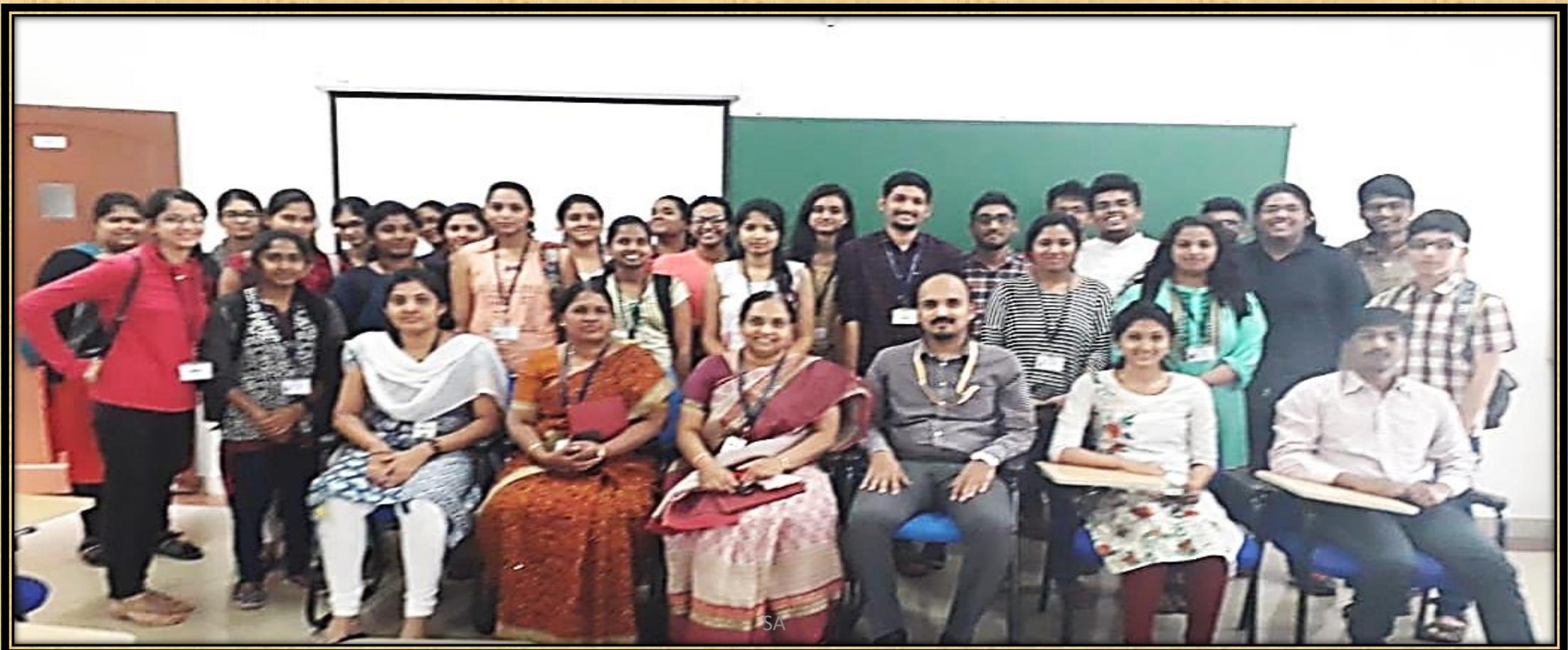
33 participants

## Industrial visit to ELCITA



# Workshops

**3-day IoT workshop conducted by  
Fiabilte Network Solutions Pvt Ltd  
09-07-2018 to 03-08-2018  
organized by the Dept of EIE and EEE  
with 29 participants**



# Faculty Development Program

# 2- day FDP on Digital Signal Processing Lab Jan 23- 24, 2018





## 2- day FDP on Digital Signal Processing Lab Jan 23- 24, 2018

### Resource Persons –

Dr. Vidya (EEE HoD, GAT),  
Dr. Andhe Pallavi (RNSIT),  
Prof. Prakash Tunga (ECE, RNSIT) &  
Prof. Y Pavan Kumar (BOS Chairman, VTU  
& Prof. EEE, BIT)

# International Conferences

# **CCUBE-13**

- First International Conference on
- Circuits, Controls and Communications
- During December 15-16, 2013
- Jointly organized by the department of IT along with ECE and EEE,
- with Technical co-sponsorship from
  - IEEE Bangalore section,
  - IEEE CAS society Bangalore chapter,
  - IEEE CIS society Bangalore chapter.
- The reviewed and presented papers were
  - uploaded in IEEE Xplore digital library



#### **About the conference**

The purpose of International conference on 'Circuits, Control and Communication' (C<sup>3</sup> 2013) is to explore the latest advances in each of the above, identify further research areas and bring together Academicians, Researchers, Designers, Developers and Practitioners, who are interested in its vast applications. The forum will also provide opportunity for interactive discussions and fruitful and concrete recommendations. Since the topics are inter-disciplinary in nature, there is wide scope for exploring areas outside the box and come out with commendable results. Post graduate students, research scholars and professionals from academia and industry are warmly invited to attend the conference and present their ideas.

#### **Scope**

The focus of the conference is on ongoing/current and latest development of research in three layers ( Device, Control and Communication) of the system layer architecture. Papers are invited describing original work in any of the areas listed below. Papers describing advanced prototypes, systems, tools and techniques indicating future directions are also encouraged. All submitted papers will be screened and blind reviewed by specialized referees appointed by the Technical program committee. Acceptance will be based on originality, quality and relevance.

#### **Topics of Interest**

- Sensor node, Circuits, Devices
- Protocols and standards
- Software platforms and middleware
- Tools and techniques for design, development, testing and evaluation of Circuit & System
- VLSI design, VLSI CAD, Embedded System & Nano Technology
- Discrete event and real time systems
- Artificial intelligence and machine learning
- Image, Speech and Signal processing
- MEMS devices
- Biomedical signal processing
- Wired and Wireless networks/technology
- Controls in Process Industry
- Optical, Satellite, RF communication
- Air Interfaces
- Network Processors
- Smart grid
- Power Quality
- Power Electronics and FACTS
- Electric Drives and Controls
- Renewable Energy Sources
- Power system optimization and control
- Contingency analysis
- AI applications to electrical system
- Electromagnetics and High Voltage Engineering & Related areas

#### **Registration Fee**

Delegates	Professionals		Students	
	IEEE Members	Non-Member	IEEE Members	Non-Member
Indian delegate	₹ 6000	₹ 7000	₹ 4000	₹ 5000
Foreign delegate	\$200	\$250	\$100	\$150

#### **Important Dates**

Submission of Papers : June 1, 2013  
Notification of Acceptance : October 1, 2013  
Camera Ready Papers Submission : November 15, 2013  
Conference : December 27-28, 2013

*One of the Authors of accepted papers must register.  
All accepted and presented papers will be archived  
in IEEE Xplore digital library.*

#### **Sponsors**



For any queries, contact: email : [info@ccube2013.com](mailto:info@ccube2013.com) Ph : 8971194617, 9880129596, 9620555266

For more details, please visit the conference website: [www.ccube2013.com](http://www.ccube2013.com)

# CCUBE 13 Special Invitees

## Chief Guest

Dr. S S Murthy  
Vice Chancellor  
Central University

## Guest of Honour

Padmashree Dr. K N Shankara  
Former Director,  
ISAC, ISRO

## Plenary Talks

- T G Nayan of Yokogawa
- C Subramanian &
- Mr Balachandar Santhanam of Intel
- Dr. Jitendra R Raol of NAL
- Dr. Rahul Sinha of TCS
- Vipul Singhal of TI

## Panel Discussion

- Prof P Nagabhushan  
University of Mysore
- Dr ANN Murthy of DSCE
- MS Deepa Latthe, Accenture
- KVRS Sarma, Infosys

## Session Chairs

- Dr. P A Vijaya, BNMIT
- Dr. T Srinivas, IISc
- Dr. B K Keshavan, PESIT
- Dr. G T Raju, RNSIT
- Dr. Meenakshi, Dr. AIT
- Dr. S B Bhanuprashant, BNMIT
- Mr G S Pradeep, LSI
- Dr. Ravi Shankar Dixit, BMS
- Dr. T G Basavaraju, SKSJ

# Display on IEEE Website

## 2013 International conference on Circuits, Controls and Communications (CCUBE)

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### IEEE sponsors:

- Bangalore Section
- Bangalore Section CAS Chapter
- Bangalore Section COM Chapter
- Bangalore Section CS Chapter

### Other sponsors:

- R.N. Shetty Institute of Technology

**Conference Record # 31795**  
**IEEE Catalog Number -**  
**CFP13CCU-ART**  
**ISBN - 978-1-4799-1601-6**

**Papers Published: 44**

# CCUBE-13



# CCUBE-13

Systems, Bangalore as the Chief Guest



# CCUBE-17

- Second International Conference on Circuits, Controls and Communications
- Organized by the Department of IT along with ECE and EEE
- during December 15-16, 2017
- with Technical co-sponsorship from
  - IEEE Bangalore section
  - IEEE CAS society Bangalore chapter,
  - IEEE CIS society Bangalore chapter,
  - IEEE COMSOC society Bangalore chapter with
- A Conference ID 41751,
  - IEEE Xplore Catalog no CFP17CCU-ART& ISBN no 978-1-5386-0615-5
- The selected and presented papers were uploaded in IEEE Xplore digital library



### About RNSIT

R.N.Sathy Institute of Technology, established in the year 2001, is the brain child of the chairman Dr. K.M.Sathy, a renowned industrialist, entrepreneur and philanthropist. A number of educational institutions are run by R.N.Sathy Trust, with RNSIT being one amongst them. RNSIT imparts high quality education in engineering, management and computer applications to students and produce the best of engineering talents in the country.

RNSIT offers 7 undergraduate, 7 post graduate programs and has 4 research centers. RNSIT is rated by the public as one of the best colleges in Bangalore and is very popular among the student community as the best teaching institution.

RNSIT organizes International and National level conferences, workshops and seminars on frontier areas of science, technology and business management, especially for the benefit of faculty research, students and industries.



## RNS Institute of Technology

[AICTE Approved, VTU Affiliated and MHRD Accredited]  
Dr. M. Venkateshwaran Road, Chamarajpet, RTR Nagar, Bangalore - 560 018  
Karnataka, India

# C<sup>3</sup> 2017

December 15-16, 2017

INTERNET  
OF THINGS

WIRELESS

TECH



2<sup>nd</sup>  
International  
Conference on  
Circuits,  
Controls  
and  
Communications

## PROCEEDINGS

Jointly Organized by

Departments  
of  
ECE, EIE, EEE

[www.rnsit.ac.in](http://www.rnsit.ac.in)





## Chief Guest

- Dr. Karisiddappa  
Vice Chancellor  
VTU

## Guest of Honour

- Dr C P Ravi Kumar  
Director  
TTD  
Texas Instruments

# CCUBE 17

**Papers published: 48**

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## Planetary Talks

- Dr Dilip Krishnamurthy
- Dr Jayavardhana Gubbi
- Dr Venkatesh Yelsangikar
- Anil M Prabhu
- Dr Raghavendra



# CCUBE 17



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CCUBE-17

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# Expert Visits

**Texas Instruments team from USA had visited RNSIT campus. On 02.02.2016**

### **TI Team Composition**

- **Dr. Peter Balyta**, President of the Worldwide Education Technology Division at Texas Instruments USA,
- **Mr. Doug Philips**, Worldwide University Marketing Manager at Texas Instruments USA,
- **Ms. Renee Fancher**, TI, USA and
- **Mr. Sanjay Srivastava**, director of marketing, University program at Texas Instruments, India

- Interacted with ECE / IT / EEE faculty familiar with TI products ranging from DSPs to microcontrollers.
- The team viewed all the TI-based UG and PG mini/main projects carried out at RNSIT

# Texas Instruments Team Visit



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# Texas Instruments Team Visit



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# Lab visit by the TI Team



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# Invited Talks

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• <b>Mohan Basavaraj</b><br/>Accenture Services Pvt. Ltd</li></ul>  | <ul style="list-style-type: none"><li>• <b>Mrs. Padma R</b><br/>Yokogawa India Ltd</li></ul>                    |
| <ul style="list-style-type: none"><li>• <b>Rangaraj M A</b><br/>Retd. from SSC.<br/>Indian Navy</li></ul> | <ul style="list-style-type: none"><li>• <b>Mr. Dinesh Thukaram</b><br/>Honeywell technology solutions</li></ul> |
| <ul style="list-style-type: none"><li>• <b>Abhijit Janardhan</b><br/>AirBus</li></ul>                     | <ul style="list-style-type: none"><li>• <b>Harvey Biomedical Team</b></li></ul>                                 |
| <ul style="list-style-type: none"><li>• <b>Dr. Timoty Poston</b><br/>Forcus Health Pvt. Ltd</li></ul>     |   |

The Chief guest for the program **Mr. Mohan Basavaraj**, from Accenture Services Pvt. Ltd., and an activist from "Youth for Seva", Bangalore gave an insightful talk to motivate the audience by advising them to change their actions and attitudes towards keeping their city clean and to innovate by applying engineering methods for a better and clean community.



# Rangaraj M A

(2002-06)

Retired from SSC, Indian Navy, donating Handheld 3GHz Spectrum Analyzer to IT R&D Centre on 01.03.2017



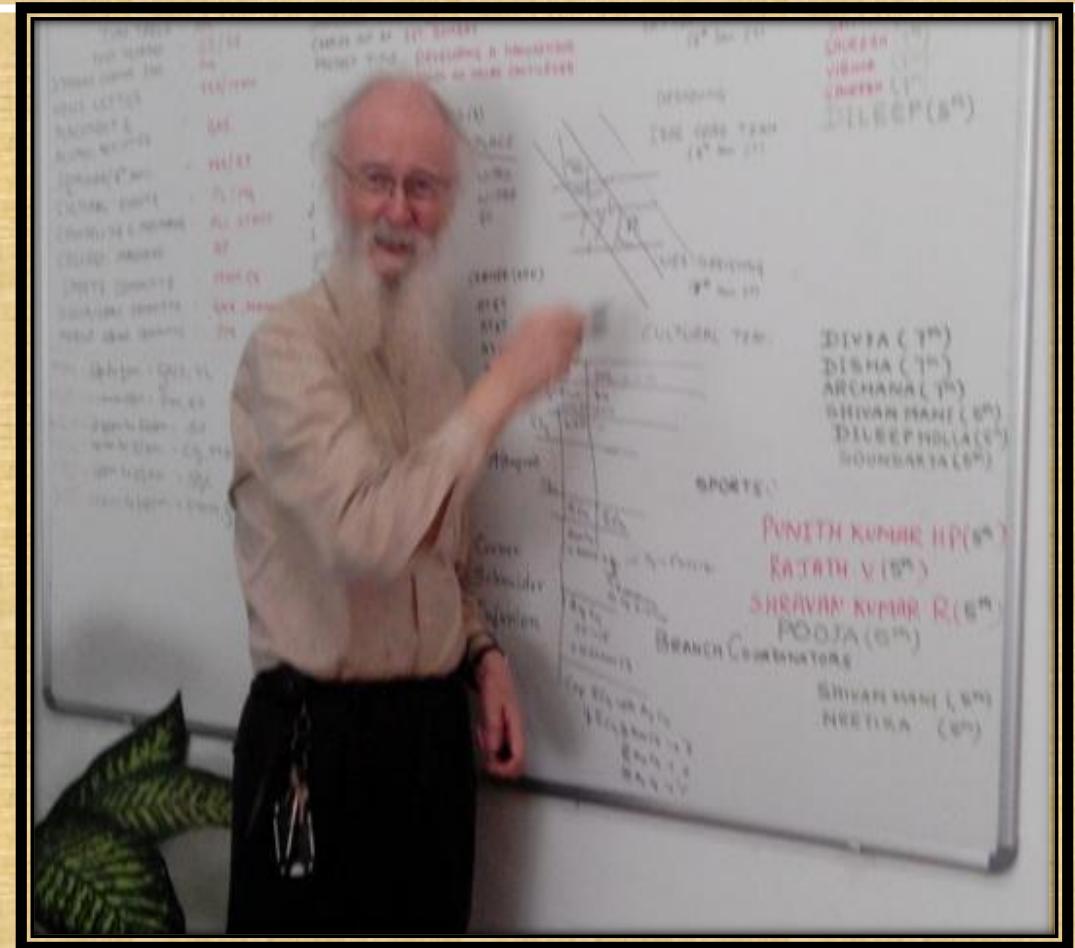
# Abhijit Janardhan

(2008-2012)

Currently working at Air Bus



**Dr. Timoty Poston**, a well-known scientist and a patent holder working with Forcus Health Pvt. Ltd visited the department on 8/8/2015 and gave an insightful talk on Ultrasonic imaging systems with focus on PCTNDT policy guidelines of Govt. of India



Talk on “Ultrasonic Imaging Systems focus on PCTNDT policy guidelines of Indian Govt.” by Dr. Timothy Poston, Scientist & Patent Holder, Forus Health Pvt. Ltd. 08.09.2015 titled for 2nd year I.E. M.Tech students

Talk on “Overview of DCS in Process Control Industry” by **Mrs. Padma R**, Deputy Manager, Yokogawa India Ltd. On 29.04.2014 in EIE Seminar Hall for sixth semester EIE students



**Mr. Dinesh Thukaram**, Director Talent transformation, Honeywell technology solutions delivered a technical talk on “Bridging the gap between industry and academia” on 24/3/2018. The talk highlighted the existing levels of control and management of a process industry followed by introduction of the future automation in process industry called “Open Process Automation” which uses open technologies at all levels of automation.



**Harvey Biomedical Team**

**Seminar on**

**Scope of Biomedical Engineering**

**and Importance of Skill Training**

**5<sup>th</sup> April 2019**



# Harvey Biomedical



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**Harsha Aralaguppe**  
**Senior System Analyst**  
**Sonata Software**  
**on 01-02-2019**  
**Talk on Career Guidance**



# Other Invited Talks

Invited Talks	Dates
<b>2015-16</b>	
<b>Madhura G, Roopa Naik and Archana Kulkarni</b>	<b>04-12-2016</b>
<b>ARM Cortex M3 Processors</b>	<b>06.10.2015</b>
<b>2013-14</b>	
<b>Kristen MacCartney, Manager, IEEE University Partnership Program, IEEE Headquarters, New Jersey, USA</b>	<b>27-10-2014</b>
<b>Process Control Systems and DCS</b>	<b>01.10.2013</b>
<b>Implementation of Controllers (Deadbeat, Dahlin, Smith Predictor) using Simulink</b>	<b>26.12.2013</b>
<b>Circuits, Controls and Communications (C3 2013)</b>	<b>27.12.2013</b>
<b>2 days workshop on VHDL</b>	<b>28.07.2014</b>
<b>2011-12</b>	
<b>MSP430 Microcontroller and Programming</b>	<b>27.01.2012</b>
<b>Career Guidance (Aptitude Training)</b>	<b>09.06.2012</b>
<b>MATLAB for M.Tech Students</b>	<b>07.12.2012</b>
<b>Dr. K. L. S Sharma, Advisor, Automation Education and Training</b>	<b>25-02-2012</b>
	<b>28-04-2013</b>