# **AICTE** sponsored

Six Days

SHORT TERM TRAINING PROGRAMME

on

### RECENT

# TRENDS AND CHALLENGES OF INTERNET OF THINGS IN AUTOMATION

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

16/03/2020 to 21/03/2020

#### **REGISTRATION FORM**

Name Dr./Mr./Ms :
Qualification :
Designation :
Department :
Organization :
Category: (Please tick the appropriate one)
Academia Industry Research scholar
Address :
Mobile :
E-mail ID :
Note: No registration fee will be charged

**Chief Patron** 

Shri. R.S. Munirathinam, Founder - Chairman

#### **Patrons**

Smt. Manjula Munirathinam, Chairperson Shri. R. Jothi Naidu, Director Shri. R.M. Kishore, Vice Chairman Shri. Yalamanchi Pradeep, Secretary Dr.Durgadevi Pradeep, Vice Chairperson

Smt. Sowmya Kishore, Management Trustee

#### **Advisory Comittee**

Dr.M.S.Palanichamy ,Advisor Shri.T.Pitchandi IAS (Rtd),Advisor Shri. V. Manoharan,Advisor Dr.N.Anbuchezhian,Principal Dr.K.Sivaram,Dean-Research Dr.K.K.Thyagharajan,Dean-Academics

#### Convenor

Dr. A.Chilambuchelvan Professor & Head / EIE

#### **Co-ordinator**

Dr.G.Nalinashini, Professor

#### **Organizing Committee**

Ms.N.Vini Antony Grace, Associate Professor Ms.N.Padmavathi, Associate Professor Ms.G.Karthika, Assistant Professor Mr.M.Aravindan, Assistant Professor Ms.A.Sowmiya, Assistant Professor Ms.L.Aquiline Lydia, Assistant Professor Ms.P.Aileen Sonia Dhas, Assistant Professor

#### **Address for Communication**

Dr.G.Nalinashini

Professor
Department of EIE
R.M.D Engineering College,
R.S.M. Nagar, Kavaraipettai, Gummidipoondi Taluk,
Thiruvallur District, Pin Code – 601 206.

Tel : 044-67919151 Mobile :+91-8778409303 Email : gns.eie@rmd.ac.in



# AICTE sponsored



Six Days

SHORT TERM TRAINING PROGRAMME

on

RECENT
TRENDS AND CHALLENGES OF INTERNET
OF THINGS IN AUTOMATION

16/03/2020 to 21/03/2020



ORGANIZED BY DEPARTMENT OF

**ELECTRONICS AND INSTRUMENTATION ENGINEERING** 

## R.M.D. ENGINEERING COLLEGE

R.S.M NAGAR, KAVARAIPETTAI
GUMMIDIPOONDI TALUK, TIRUVALLUR DISTRICT,
TAMIL NADU
PIN: 601 206.
WEBSITE: https://rmd.ac.in

#### **About the college:**

R.M.D. Engineering College was established in the year 2001 by Sri Swaminatha Naidu Educational Trust. The Founder – Chairman of the Trust is Shri.R.S. Munirathinam, renowned for his philanthropic attitude and service. The college is approved by AICTE and affliated to Anna University, Chennai. RMDEC offers 5 Undergraduate programmes and 1 Postgraduate programme. It is an ISO 9001-2015 certified Institution and also accredited by National Board of Accreditation (NBA) and NAAC. RMDEC is ranked one among the top premier Engineering Colleges affliated to Anna University , Chennai. Excellent academic standards, state-of-the art facility, dedicated staff and enterprising student community make RMDEC a favored destination for Engineering aspirants and RMDEC was conferred with the Corporate giants. prestigious Bharatiya Vidya Bhavan National Award for an Engineering College having Best Overall Performance-2010 by Indian Society for Technical Education (ISTE). RMDEC has entered into Memorandum of Understanding (MOUs) with several Industries and Institutions for enhancing the technical skills of our students.

#### **About the department:**

Department of Electronics and Instrumentation Engineering was started in the year 2009 with an intake of 60 students. The department has eight laboratories with state-of-the-art facilities in diverse fields of Instrumentation with an investment of more than 60 lakhs. The Department has four Centres of Excellences (CoE) in the field of Building Management Systems, Factory Automation, Embedded systems, Automotive Electronics. Through Industry – Institute Collaboration, Building Management Systems Lab established in our department. Faculty members are involved in research activities and publishing their research papers in reputed international journals indexed by IEEE, WoS and Scopus etc. The Department is accredited by the NationalBoard of Accreditation (NBA) in the year 2017.

#### **Vision of the department:**

The Electronics and Instrumentation department is committed to develop students as professionals with strong technical-entrepreneurial background empowered with periodic upgradation of faculty skills and state of art infrastructures.

#### **Mission of the department:**

To provide quality education in foundations of Electronics and Instrumentation Engineering.

\*To produce skilled Instrumentation engineers capable of innovating & developing solutions for industrial requirements.

\*To instill qualities of professional leadership, entrepreneurial and ethical values among students.

\*To establish tie-ups with reputed industries and Institutions to synchronize with upcoming technologies.

\*To facilitate adequate exposure to faculty in latest trends of Electronics and Instrumentation Engineering.

#### **About the programme:**

Internet of Things (IoT) refers to the network of Internet connected objects, able to collect and exchange data with the goal to provide users with smarter, most efficient experiences. IoT plays a major role in every Industry's digital transformation strategy. IoT is digitalizing the world from home automation to Industry automation, spanning from manufacturing, utilities, transport, smartcitiy, healthcare, security, logistics, energy,retail,airports,oil & gas,shipping and so on.loT is a wide and rapidly developing area with expected strong and growing implications for the Industry. Scarce information is available for IoT usage in Industrial automation. domain for reliable and collaborative automation with respect to offering predictable and fault-tolerant real-time closed-loop control, and inclusion of intelligent service features from edge devices to the cloud. This Short Term Training Programme (STTP) intents to bring together experts to discuss upon recent trends and challenges of IoT in Automation.

#### **Objective of the course:**

The main Objective of the STTP is to impart the IoT Knowledge Faculty, Researchers, Industrialist. The state of art IoT, its Applications, Design issues, Challenges, Security, Integration of Sensors, Automation using IoT and emerging trends of IoT will be discussed.

#### **Course Contents:**

- ▶IoT Introduction, Architecture ,Services and Protocols
- ► IoT Challenges and its Applications
- ► IoT Enabled Process Automation and Control System
- ► Implementation of Factory Robotics Using IoT
- ► Hands-on Training on Arduino

Interfacing of IR Proximity Sensor, Ultrasonic Sensor
Interfacing of Gas Sensor, DHT11 Sensor
Android Controlled Device Automation with Arduino
Uploading live sensor data on Thingspeak cloud using
ESP8266

► Hands-on Training on Raspberry Pi Introduction to python programming Interfacing of IR Proximity Sensor, Ultrasonic Sensor Interfacing pf DHT11 Sensor Thing Speak IoT platform Designing Webpage for IoT Applications

#### **Resource Persons:**

Experienced faculty from Reputed institutions, Experts from Industries will deliver lectures and conduct hands on practical sessions.

#### **Eligibility:**

This course is open to Faculty members and Research scholars of AICTE approved Engineering colleges, Polytechnic colleges, Engineers from R&D Institutions and Industries

#### **TA & Accommodation Details:**

TA will be paid to the participants as per AICTE norms. Accommodation will be provided to the selected outstation participants upon request

#### **Important Dates:**

Last date for Registration: 09/03/2020 Intimation of selection: 11/03/2020