One Week Online Short Term Course On

# "Towards Embedded Systems"

January 27-31, 2021



# ORGANIZING TEAM Patron

Professor (Dr.) Goutam Sutradar Director, National Institute of Technology Manipur

# Chairman

Dr. Aheibam Dinamani Dean Students Welfare National Institute of Technology Manipur

# Convener

Dr. Manoj Kumar Assistant Professor & Head, Department of Electronics & Communication Engineering National Institute of Technology Manipur

# Coordinator

Dr. L. Surajkumar Singh Assistant Professor, Department of Electronics & Communication Engineering National Institute of Technology Manipur

## **Members**

Dr. Huirem Tarunkumar Lecturer, Department of Electronics & Communication Engineering, National Institute of Technology, Manipur

Mr. Richard Ningthoujam Jr. Lecturer, Department of Electronics & Communication Engineering, National Institute of Technology Manipur



Organized By:

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR, IMPHAL – 795004, MANIPUR, INDIA

#### ABOUT NIT, MANIPUR

National Institute of Technology Manipur, a centrally funded institution is set up to impart quality technical education at various levels of higher learning. It is one of the ten new NITs established and developed as "Institute of National Importance" by an act of Parliament in 2007. NIT Manipur started its first session with the three branches of Engineering-Electrical & Electronics Engineering, Electronics & Communication Engineering and Computer Science Engineering. The functioning of the institute was started at its temporary campus at Takyelpat, Imphal under the mentorship of NIT, Agartala. As one of the National Institutes of Technology (NIT), the Institute has the responsibility of providing high quality education in Engineering, Technology and Sciences to produce competent technical and scientific manpower for the country. The Institute offers B.Tech, M.Tech, M.Sc and PhD programmes in several disciplines of Engineering, Technology and Sciences.

#### ABOUT THE COURSE

This course will give an insight of an embedded system and also helps in understanding advanced systems for various applications ranging from simple household devices to advanced complex and critical systems.

This course will cover the following topics:

- Overview of Embedded systems and applications.
- Input and output devices.
- Introduction to Number systems.
- A brief discussion on Processor architectures.
- Instructions set of basic embedded processor.
- · Introduction to assembly level language programming.

A Course certificate will be issued upon successful completion this course.

#### **OBJECTIVES OF THE COURSE**

- > This course will help in deep understanding of the embedded processor and the overall embedded systems.
- > The ability to design an embedded system of basic applications by programming.
- > To nurture the creativity of oneself towards the embedded system designs.

## Who can attend this STC through Online?

Students: (12th,UG)

Faculty of Engineering: (Any Branch)

Registration: Kindly register through this link: (link will be provided later)

## Registration fee for attending this STC.

UG/12th Students: Rs 100/- including GST

Faculty: Rs. 200/- including GST

Engineers /Other professionals: Rs.200/- including GST

## Details of the Bank Account:

Name: Director NIT Manipur IRG Acc. No. 60330100000143

Bank and Branch: Bank of Baroda, NIT Manipur Campus

IFSC code: BARBONITMAN

Numbers of participants are limited to 50. Shortlisted candidates will be informed through email.

For any query, contact:

Mr. Richard Ningthoujam

Email: richard.ningthoujam@gmail.com; Mb: +91-8787784901

IMPORTANT DATES

Last Date of Registration January 22, 2021

# Resource Persons:



**Dr. Aheibam Dinamani Singh** received B. Tech. in Electronics and Communication Engineering from North Eastern Hills University, Shillong, India in 2004. He completed M. Tech and Ph.D. in Electronics and Communication Engineering from the North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli, Arunachal Pradesh, India, in 2010 and 2015 respectively.

He joined HCL, Nariman Point Mumbai in the year 2004. He was a faculty in the Department of Electronics and Communication Engineering, NERIST from 2006 to 2019. He is currently working as Associate Professor in the Department of Electronics and Communication Engineering at National Institute of Technology, Manipur.

His research interests are in the area of wireless communication, Fading Channels, Image Processing, Computer Vision, Biomedical Image Processing, Signal Processing, Antennas array, and Millimeter-wave antennas. He published over 55 scientific papers in research journals, international and national conferences of repute.



**Dr. L. Surajkumar Singh** is currently working as an Assistant Professor in Department of Electronics & Communication Engineering, National Institute of Technology, Manipur. He received his PhD from National Institute of Technology Manipur.

He has published several research articles in national and international reputed journals and attended various conferences across India and abroad. His Research Area includes embedded systems, Semiconductor nanotechnology. He has published over 35 scientific articles in International, National journals of repute and in several conferences.



**Dr.Manoj Kumar** is currently working as Assistant Professor in Department of Electronics and Communication Engineering, National Institute of Technology, Manipur, India. He obtained his PhD degree from National Institute of Technology Manipur. He has published several research articles in reputed journals. His research interest includes Digital and Analog CMOS IC design, VLSIDSP, Digital Circuits.

# Resource Persons:



**Dr. Kalyan Mondal** received his Ph.D degree in DETS (Department of Engineering and Technological Studies) from Kalyani University, West Bengal, India in 2018. He has obtained ME (Master of Engineering) and B.Tech degrees in electronics and Communication Engineering from IIEST (Indian Institute of Engineering Science and Technology, Shibpur) former BESUS, Howrah, India in 2011 and Kalyani Govt. Engineering College, West Bengal, India in 2008 respectively. Now he is an Assistant Professor in the department of Electronics and Communication Engineering, NIT Manipur, India. His research interests are Microstrip Antenna and Frequency Selective Surfaces (FSS) design for different microwave frequency bands. He has contributed more than 30 numbers of research articles in different reputed journals and conferences.



**Dr. H. Tarunkumar** joined as faculty in the department of Electronics and Communication Engineering, National Institute of Technology Manipur in 2014. He earned his doctorate in Electronics and Communication Engineering from NIT Manipur in 2019. He has published articles in the peer-reviewed international journals and conference proceedings. His main research interests are Microelectronic Devices and Bipolar & MOS Analog Integrated Circuits.



Mr. Richard Ningthoujam is currently working as faculty in the Department of Electronics and Communication Engineering, National Institute of Technology Manipur. He completed his M.Tech and B.Tech in electronics and Communication Engineering from from Visvesvaraya Technological University, Belgaum, Karnataka. His research interests are Embedded Systems, VLSI, Hardware Accelerators.