

**One Week Short Term Course
On**

Introduction to Electrical Engineering

25th – 29th January, 2021



ORGANISING TEAM

Patron

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

Chairman

Dr. Benjamin A Shimray
Assistant Professor, Department of Electrical Engineering
National Institute of Technology Manipur

Coordinator

Dr. Shuma Adhikari
Assistant Professor, Department of Electrical Engineering
National Institute of Technology Manipur

Convenor

Dr. Mrinal Kanti Sarkar
Assistant Professor, Department of Electrical Engineering
National Institute of Technology Manipur

Co-Convenor

Dr. Kundan Kumar
Assistant Professor, Department of Electrical Engineering
National Institute of Technology Manipur



**DEPARTMENT OF ELECTRICAL ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR WEST IMPHAL
MANIPUR, INDIA- 795004**

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 the “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 Ph.D. programmes in several disciplines of Engineering, Technology, and Sciences.

ABOUT THE COURSE

This course will provide detailed ideas about some of the electrical components used in various electrical appliances, how it works in a circuit, and various useful electrical circuit laws.

Topics covered include:

- Familiarization of electrical elements;
- Magnetic field behavior in single coil;
- Basics of Digital Electronics: Logic gates, Number system and memory devices;
- Diode, rectifier, clipper, clamper;
- Introduction to Kirchhoff’s law, mesh analysis and nodal analysis;
- Basics of Generation, Transmission and Distribution of Electrical Power;
- Introduction and basics of EVs;
- Switchgear and Power System protection.
- Introduction to Basic Electrical Machines
- Introduction to Measurement and Instrumentation
- Introduction to Control System

A certificate will be issued to the candidates after successful completion of the course.

OBJECTIVES OF THE COURSE

The main objectives are:

- To provide detailed ideas about the various components used in household appliances.
- Understanding the electrical laws that are governing various electrical components.
- Gathering knowledge about Electrical Machines and the working principles that are behind the machines.

Who can attend this STC?

Students registered in XI & XII standard

Registration fee for attending this STC = Rs 100/- including GST.

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

Details of the Bank Account

Name: Director NIT Manipur IRG
Acc. No. 60330100000143
Bank and Branch: Bank of Baroda, NIT Manipur Campus
IFSC code: BARB0NITMAN
(Or) Google pay @ 90893 57544

IMPORTANT DATES

Last Date of Registration: 25th Jan, 2021

Registration Link:

https://docs.google.com/forms/d/e/1FAIpQLSftW0NKcappCJqR0AlcDPyJOadGGcr7IB05nMD0pb_TpplsJQ/viewform

For any query, you can contact to the course coordinator
Dr. Shuma Adhikari, Assistant Professor (EE)
Email: shumaadhikari@gmail.com; Mobile No: 9774271956

Resource Persons



Dr. Benjamin A Shimray

Dr. Benjamin A Shimray is an Assistant Professor in the Department of Electrical Engineering at National Institute of Technology Manipur.

His research interest includes Control System, soft computing, and developing decision support system for renewable energy planning.



Dr. Shuma Adhikari

Dr. Shuma Adhikari is an Assistant Professor in the Department of Electrical Engineering at National Institute of Technology Manipur.

Her research interest includes Power system protection, micro grid and FACTS devices.



Dr. Mrinal Kanti Sarkar

Dr. Mrinal Kanti Sarkar is an Assistant Professor in the Department of Electrical Engineering at National Institute of Technology Manipur.

His research interest includes Control System.



Dr. Kundan Kumar

Dr. Kundan Kumar is an Assistant Professor in the Department of Electrical Engineering at National Institute of Technology Manipur.

His research interest includes Propulsion Drive System for EVs using Wide Bandgap Semiconductor Devices (i.e. GaN & SiC), Wireless Power Transfer Systems



Mr Ingudam Chitrasen Meitei

Mr Ingudam Chitrasen Meitei is a Lecturer in the Department of Electrical Engineering at National Institute of Technology Manipur.

His research areas include Electrical Machines and Drives, Non-Conventional and Conventional source of Energy, Distributed Generation and Renewable Energy.



Ms. Rajkumari Malemnganbi

Ms. Rajkumari Malemnganbi is a Lecturer in the Department of Electrical Engineering at National Institute of Technology Manipur.

Her research interest includes Electric drives, Analog circuit, Power electronics and drives and renewable energy.



Mrs Laishram Khumanleima Chanu is Lecturer in the Department of Electrical Engineering at National Institute of Technology Manipur.

Her research interest includes Distributed Generations and Microgrid.

Mrs Laishram Khumanleima Chanu



Mr Devakishore Phurailatpam is Lecturer in the Department of Electrical Engineering at National Institute of Technology Manipur.

His research interest includes Control system, Signal processing and Renewable energy.

Mr Devakishore Phurailatpam



Mr Simon Tongbram is Lecturer in the Department of Electrical Engineering at National Institute of Technology Manipur.

His research interest includes Semiconductor devices and circuits, VLSI design, Communication systems, Signal processing and Image processing.

Mr Simon Tongbram



Mr Lukram Dhanachandra Singh is Lecturer in the Department of Electrical Engineering at National Institute of Technology Manipur.

His research interest includes VLSI design and embedded systems.

Mr Lukram Dhanachandra Singh