## **Online Short Term Course (e-STC)**

On

Recent Innovation and Development in RF and Microwave Engineering and for Wireless Communication

12<sup>th</sup> - 16<sup>th</sup> May 2022

An Initiative of

## **National Institute of Technology Hamirpur**

(An Institute of national Importance)

Hamirpur – 177005, Himachal Pradesh, India





## Organized by

Department of Electronics & Communication
Engineering

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# **Departmental Organizing Committee**

Faculty Members, DoECE

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National Institute of Technology Hamirpur Hamirpur-177005, Himachal Pradesh, India.

#### About the Institution

National Institute of Technology Hamirpur is one of the thirty-one NITs of the country, established in 1986 as Regional Engineering College, as a joint and cooperative enterprise of the Govt. of India and Govt. of Himachal Pradesh. The goals of the institute as embodied in the logo are truly remarkable in their scope of vision. The Institute provides Undergraduate, Postgraduate and Doctorate Education in Engineering, Sciences & Humanities; fostering the spirit of National Integration among the students, a close interaction with industry and a strong emphasis on research, both basic and applied.

## **About the Department**

Established in the year 1988, the Electronics & Communication Engineering (E&CE) Department NIT Hamirpur, HP, has built an International reputation for excellence in teaching, research and service. Electronics engineers are changing the world to a comfortable global home. The information and technology revolution has been built on the advances of Electronics. The E&CE Department takes pride in its high National rankings and the International recognition its faculty has received from their peers. Department of ECE is making exhilarating progress in areas ranging from microelectronics, signal processing, machine learning, mobile communications to VLSI Design Automation. In labs and classrooms, students draw on the expertise and knowledge of our able faculty, integrating practical, hands-on research experience with challenging and interesting coursework. The department runs M. Tech. in VLSI Design Automation & Techniques (VDAT) since 2006, M.Tech in Communication Systems and Networks and also has over 30 PhD Scholars involved in various researches in the department.

## Objective of e-STC

- To introduce the innovation and development in RF and microwave engineering.
- Application of RF and microwave engineering for the next generation information & communication technology, health-care, security/defense and energy sector.
- Analysis techniques and development of electromagnetic modeling of these complex systems.
- To analyze the effects of electromagnetic radiation on living bodies
- To explore the microwave components and antennas for high frequency applications.

# **Resource Persons/Speakers**

Faculties/ Experts from IITs, NITs, IIITs, Industries and other premier Institutions/Organizations will deliver the lectures.

# **Number of Participants**

Number of participants is limited for this e-STC. Application will be accepted **on first-cum-first serve basis**.

# **Targeted Participants**

Faculty members from educational institutes, research scholars, UG/PG/PhD students, and employees from the industries.

### **Topics to be Covered**

Basic concept of electromagnetic radiation relevant for the next generation information & communication technology, health-care, security/defense and energy sector; radiation mechanism of antenna, design of antennas to get different type of electromagnetic radiation characteristics; propagation properties of electromagnetic radiation in free space, different application based antennas design; effects of electromagnetic radiation on living bodies; Recent advancement in planar antenna design and analysis; analysis and design of antenna-arrays; microwave circuits and antennas for future communication networks and energy harvesting systems; microwave components and antennas for high frequency development of electromagnetic applications; modeling of these complex systems.

## **Registration Fee Details**

Participants	Amount (in Rs.)
Faculty members or Participants from Academia/R&D Labs	500/-
Students (UG, PG, PhD)	200/-
Participants from Industries	1000/-

Participants should have minimum 80% attendance.

#### Certificate

e-Certificate will be issued to the participants after successful submitting the feedback form on completion of the e-STC.

Last Date of Registration: 11th May 2022

## **How to Apply**

The interested participants should register by paying the registration fee at SBI-I collect and filling the Google form through the below link:

https://forms.gle/7qf347La3oLEbHar7

### The SBI-I collect has following steps:

- a. Visit SBI collect at <a href="https://www.onlinesbi.com/sbicollect/">https://www.onlinesbi.com/sbicollect/</a> icollecthome.htm
- b. Click on Proceed after accepting terms and conditions.
- c. Select State of Corporate/ Institution:
   Himachal Pradesh and Type of
   Corporate/Institution as Educational
   Institution and click Go.
- d. Select Educational Institutions Name: NIT Hamirpur
- e. Select Payment Category: WORKSHOP STC FDP CONFERENCE (Last option)
- f. Fill up all the details.
  - Write TITLE of e-Workshop
  - Organizing Department
- g. Address: Filling Postal code is must
- h. Submit the form and generate the receipt.

# **Tentative Speakers**

- \* Dr. Sushrut Das, Associate Professor, IIT ISM Dhanbad
- \* Dr. Dinesh Kumar V, Professor, IIIT Jabalpur
- \* Prof. M Jalil Akhtar, Professor, IIT Kanpur
- \* Dr. Mrinal Kanti Mandal, Associate Professor, IIT Kharagpur
- \* Dr. Akhilesh Mohan, Associate Professor, IIT Roorkee
- \* Prof. Santanu Kumar Behera, Professor, NIT Rourkela
- \* Dr. Raghvendra Kumar Chaudhary, Associate Professor, IIT (ISM) Dhanbad
- \* Dr. Ravi Kumar Gangwar, Associate Professor, IIT (ISM) Dhanbad
- \* Prof. Rowdra Ghatak, Professor, NIT Durgapur
- \* Dr. Balwinder Singh Dhaliwal, Associate Professor, NITTTR Chandigarh
- \* Dr. Amit Kumar Singh, Associate Professor, IIT (BHU) Varanasi
- \* A. R. Harish, Professor, IIT Kanpur
- \* Prof. K.J. Vinoy, Professor, IISC Bangalore
- \* Prof. M. M. Sharma, Professor, MNIT Jaipur
- \* Prof. Mahesh P Abegaonkar, Associate Professor, IIT Delhi
- \* Prof. N.P. Pathak, Professor, IIT Roorkee
- \* Dr. Dipanjan Gope, Associate Professor, IISC Bangalore