

### About the Institute:

National Institute of Technology (NIT) Silchar, an institute of national importance under the NIT Act was established in 1967 as Regional Engineering College (REC) Silchar in Assam, in year 2002, it was upgraded to the status of NIT from REC. Nit Silchar is situated on the banks of river Barak and on a sprawling campus spread over 600 acres of land on the out skirts of Silchar. The landscape of NIT Silchar is beautiful with natural lakes and hillocks, surrounded by tea gardens. The climate of Silchar during July is very pleasant with normal temperature around 20-25°C. NIT Silchar is a fully residential Institution with nine hostels for boys and three hostels for girls. NIT Silchar is a teaching and research institute which reflects in the top NIRF rankings.

### About the Department:

The Department offers B. Tech in Electronics and Communication Engineering and M. Tech in two specializations (i) Microelectronics and VLSI Design & (ii) Communication and Signal processing engineering. This department also offers a Ph.D. in Electronics and Communication Engineering. The state of art laboratory facilities exist in the department to train the UG, PG, and Ph.D. scholars to carry research in the frontier research areas of Electronics and Communication Engineering. The faculty members are specialized in diverse fields, and there is a commendable research ambiance in the department. Department of Electronics and Communication Engineering takes up R&D projects sponsored by various funding agencies such as DST, SERB, BARC, Meity CSIR, and many more.

### Chief Patron

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Dr. Chandrajit Choudhury

Dr. Ashraf Hossain

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TEQIP-III Sponsored  
One Week Webinar

On

“Recent Trends in Signal Processing and  
Communications (RTSPC-20)”

10<sup>th</sup> – 14<sup>th</sup> September, 2020



Organized by

Department of Electronics and Communication Engineering

National Institute of Technology Silchar, Assam-

788010



In association with IIC, NIT Silchar

### About the Webinar:

The advent of technology has industrialized the industrial and education society. Despite its success, there are several aspects which need significant improvements. A comprehensive interdisciplinary research and development effort is needed to address these issues. The webinar aims at providing comprehensive coverage of most emerging recent research topics in various fields related to Signal processing and Communication. Signal processing is a ubiquitous technology which plays the central role in many different areas of applications, e.g., audio, video, image and speech processing, communications, healthcare, automotive safety and surveillance, safety and security of underground pipelines transporting water, oil and natural gas, and many more.

Real time applications such as Malaria infected erythrocyte classification, Face recognition, Noise removal, and Vision based hand gesture recognition will also be demonstrated.

### Resource Persons

Prof. S. R. Mahadeva Prasanna, IIT Guwahati  
Prof. Jayadeva, IIT Delhi  
Dr. Preetam Kumar, IIT Patna  
Dr. Swagatam Das, ISI Kolkata  
Dr. Amit Bhardwaj, IIT Jodhpur  
Dr. Sishir Kalita, Data Scientist, Armsoftech  
Dr. Anima Mazumdar, Scientist, TCS Innovation Lab, Bengaluru  
Mr. Abhishek Roy Choudhury, TCS, Kolkata  
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Mr. Sovan Banerjee, BSNL  
Dr. Rabul Hussain, NIT Silchar  
Dr. Ashraf Hossain, NIT Silchar  
Dr. Wasim Arif, NIT Silchar  
Dr. Taimoor Khan, NIT Silchar  
Dr. Ganesh Prasad, NIT Silchar  
Dr. Ram Kumar Karsh, NIT Silchar  
Dr. Chandrajit Choudhury, NIT Silchar

### Topics to be covered:

- Analysis and Signal Processing of Pathological Voices
- Practical Signal and Image Processing in Clinical Cardiology
- Communication Algorithms via Deep Learning.
- Green Communication and its Research Aspects.
- Cognitive Radio Technology and its Research Aspects.
- 4G, 5G, 6G Cellular Wireless and IEEE 802.11ax Based WiFi 6: A Comparison.
- 5G Challenges and Enabling Technologies.
- Millimeter-wave Wireless Communication System and its Research Aspects.
- Deep Learning Architectures for Image Processing.
- Graph Signal Processing: Connections to Distributed Optimization and Deep Learning.
- Block Chain Coding.
- Speech, Image, Video Processing, Multi-resolution Signal Processing
- Multimedia Security Analysis.
- Light-field Imaging.
- Computational Intelligence Modelling for Printed Microwave Circuits.

### Important dates

Last date of receipt of application: 8-September-2020. Notification about selection: By email.

### Eligibility:

This program is open to industry professionals, faculty members, research scholars and UG, PG students of technical institutions, engineering colleges, universities, and other recognized institutions.

### Targeted Participants:

UG, PG students, Research Scholars, Academicians, and Industry Professionals.

### Registration and selection process:

Registration fee: Nil

Number of participants limited to 100

Online Registration link:

<https://forms.gle/n1exceaaWxKZuGYS8>

Since the number of seats is limited to 100, the selection will be made on first cum first serve basis and intimation will be sent to the candidates by email. Certificates will be issued to the participants only after successful completion of the course.

### Course Materials:

Lecture slides and other reference materials will be shared with the registered candidate through email.

### Certification:

E-certificate will be provided to those participants who have attended the program without any absenteeism.

### Contact details

Dr. Ram Kumar Karsh  
Email: ram@ece.nits.ac.in  
Mob: 9706924826

Dr. Chandrajit Choudhury  
Email: chandrajit@ece.nits.ac.in  
Mob: 9833726832

Dr. Ganesh Prasad  
Email: gpkeshri@ece.nits.ac.in  
Mob: 8721090863