About the Workshop

The confluence of advanced artificial intelligence (AI) / machine learning (ML) with signal processing involved in wireless communication is paving the way for 6G networks. Compared to existing 5G networks, the signal processing in 6G networks is built on the data; thus, the network will learn and adapt from the data so as to have better spectral and energy efficiency, improve user experience and also reduce operational cost. Thus, this workshop focuses on recent AI applied signal processing trends in 6G networks and its potential use-cases.

Highlights of the Event

- Understanding data-driven and model driven ML applied to wireless networks
- Application of ML in channel estimation
- Application of ML in resource allocation
- ML applied to Radio Cartography
- Application of ML in improving Age of Information
- Application of ML in cognitive radio
- Application of ML in MIMO, NOMA.

Key Speakers

Academicians from premier institutions like IITs, NITs, State/Centrally Funded universities, foreign universities, and scientists from ISRO and DRDO having expertise and experience in relevant domain knowledge.

Organizing Committee

Chief Patron
Prof. N. V. Ramana Rao
Director, NIT Raipur

Patron
Prof. Shrish Verma
Dean (AA), NIT Raipur

Prof. Prabhat Diwan
Dean (R&C), NIT Raipur
&
Prof. Subhojit Ghosh
Chairman CEC, NIT Raipur

Chairman
Dr. Toshanlal Meenpal
Head
Department of Electronics and Communication Engineering, NIT Raipur

Faculty Coordinators
Dr. Siddharth Deshmukh
Dr. Saikat Majumder

Student Coordinators
Ms. Manidipa Sarkar
Ms. Divya Yadav
Ms. Rasika Deshpande

Department of Electronics and Communication Engineering, NIT Raipur

KARYASHALA

A one-week High-End Workshop
On

Reinventing Wireless Communication

Data Driven Signal Processing

For 6G Networks

24th - 30th July 2024

Organized by
Department of Electronics Communication Engineering
National Institute of Technology Raipur
Raipur-492010 Chhattisgarh

Sponsored by
Science & Engineering Research Board (SERB)
Government of India under **Accelerate Vigyan** Scheme

About the Institute

National Institute of Technology (NIT) Raipur, formerly known as Government Engineering College (GEC) Raipur, was established in 1956. The institute has established its unique identity for the development of high-quality human and knowledge resources. It was declared as 'National Institute of Technology' by the Government of India on 1st December 2005 and then an 'Institute of National Importance' in May 2007 vide the National Institute of Technology Act 2007. NIT Raipur now offers 12 UG and 16 PG programs. In addition to the UG and PG programs, NIT Raipur also offers Ph.D. in 18 disciplines of science and technology.

For details about the institute please visit us at www.nitrr.ac.in

About the Department

The Department of Electronics and Communication Engineering was started in the year 1985 and it offers undergraduate, post-graduate and Ph.D. program. The department has well-equipped laboratories including the communications lab, microwave lab, DSP lab, computer vision lab, VLSI and micro-electronics Lab, Embedded systems lab, to enable the students and the scholars to pursue research in house.

About the KARYASHALA

The KARYASHALA scheme by SERB Government of India is meant for skill development training on topics required for scientific research work. It is an effort to improve the research productivity of promising PG and Ph.D. students from universities and colleges. This program aims to provide opportunities to acquire specialized research skills. For more details about the program please visit https://acceleratevigyan.gov.in/programs/abhyas/karyashala.

Eligibility

Applications are invited from **Undergraduate (Final Year) Postgraduates**, and **Ph. D scholars**.

Importantdetails

- ✓ **No registration fee** is applicable.
- ✓ Travel allowance train 3rd AC/Sleeper/Bus fare (as per the GOI rules) will be provided.
- ✓ Shared accommodation will be provided.
- ✓ **Only 25 candidates** will be selected on **First-come, First-serve** basic or some criteria determined by the commitee to participate in the workshop.
- ✓ Participant has to upload **No Objection certificate** while registering for this workshop as per the format given.
- ✓ Certificate of participation would be issued to all participants.

Format of No-Objection Certificate

Date:_____

To Whom It May Concern,

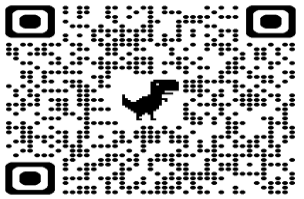
This letter is to certify that *[Student's Full Name]*, a *[UG/PG/PhD]* student of Dept. of *[Name of the Department]* from *[School/Institution Name]*, has sought permission to attend a workshop titled "Re-inventing Wireless Communication: Data Driven Signal Processing for 6G Networks", which is scheduled to take place from 24th July, 2024 to 30th July, 2024 at NIT Raipur. We hereby confirm that we have no objection to the student attending the workshop and encourage their participation in such educational events that can further enhance their knowledge and skills.

Signature of the applicant
Date and place: _____

Recommended / forwarded
Signature of the Head of the
Dept. / Institution with seal

Registration

Click Here/
Scan the QR code to register.
Last date of registration:
30.06.2024



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