COURSE OBJECTIVE:

There is a cogent linkage between signal processing and VLSI technology because digital signal (and image) processing has led to the demand for high levels of computational throughputs. The main objective of this course is to provide an opportunity for research scholars, faculty members and industry personnel to get an exposure to the advancements in signal and image processing, machine learning, and modern VLSI technologies. The course is designed for both beginners and experts, and will be focused to give an insight into the field through discussion of necessary theoretical background followed by simulations/practice using MATLAB, Python, etc. and measurement techniques.

ABOUT DEPARTMENT OF ECE:

The mission of the Department of ECE, NIT Rourkela, is to advance and spread knowledge in the area of communication, instrumentation, signal processing and VLSI leading to creation of wealth and welfare of humanity. Vision of this department is to become a nationally acclaimed department of higher learning that will serve as a source of knowledge and expertise for the society. In this department, two under graduate and five post graduate courses are running at present. Faculty members of the department are involved with research work in various domains: Communication & Networks, VLSI & Embedded systems, Signal & Image Processing, Microwave Engineering, and Instrumentation Engineering.

COURSE HIGHLIGHTS:

➢ Foundational concepts in signal and image processing.

➢ Recent advances in signal processing, computer vision, and VLSI technologies.

➢ Introduction to deep learning and machine intelligence and their utilization in the field of signal & image processing and biomedical applications.

➢ Pipelining and parallel Processing, retiming, folding and unfolding transformations.

➢ VLSI designs for signal processing applications and digital signal processing for embedded applications.

➢ DSP Algorithms: Applications and VLSI Implementations.

➢ Digital Design Using Verilog HDL and image processing & machine/deep learning using MATLAB/Python.

Speakers:

- Prof. R. B. Pachori, IIT Indore
- Prof. A. S. Dhar, IIT Kharagpur
- Prof. K. K. Sharma, MNIT Jaipur
- Dr. Mahendra Sakare, IIT Ropar
- Dr. Samit Ari, NIT Rourkela
- Dr. Anup Nandy, NIT Rourkela
- Dr. Manish Okade, NIT Rourkela
- Dr. A. S. Yadav, NIT Rourkela
- A. K. Swain, NIT Rourkela

The course will be conducted in online mode only through Google Meet/Zoom platforms.

SERB Sponsored

Online Short-Term Course on

Advances in Signal Processing and VLSI Technologies

(02nd - 06th May, 2022)

Coordinators:
Dr. Hemant Sharma
Dr. Atin Mukherjee

Department of Electronics & Comm. Engg.
National Institute of Technology Rourkela
Rourkela – 769 008, Odisha, India

Technically Co-sponsored by:

IEEE
ROURKELA SUBSECTION

ABOUT NIT ROURKELA:

National Institute of Technology (NIT) Rourkela was founded as Regional Engineering College, Rourkela in 1961. It is a prestigious Institute with a reputation for excellence at both undergraduate and postgraduate levels, fostering the spirit of national integration among the students, a close interaction with industry and a strong emphasis on research, both basic and applied. It's been consistently ranked within TOP 20 engineering institutes for 5 consecutive years as per MHRD's NIRF, Govt. of India.

The city of Rourkela is a bustling industrial town, cosmopolitan by nature and is well connected to all parts of the country by road and rail. It is en-route Howrah-Mumbai main line of South-Eastern Railway. Nesting amidst greenery on all sides, NIT campus is approximately 7km from Rourkela railway station. The nearest airports are Jharsuguda, Ranchi, Kolkata and Bhubaneswar.

NITR RANKINGS

Qs World University-ASIA Rankings-2022
🏆 RANK : 271-280

THE World University 2022
🏆 RANK : 801-1000

THE Emerging Economies 2021
🏆 RANK : 201−250

THE World University Ranking by Subject (Engineering) 2021
🏆 RANK : 601-800

THE World University Ranking by Subject (Physical Sciences) 2021
🏆 RANK : 601-800

QS Asian University 2021
🏆 RANK : 250

THE IMPACT Ranking 2021
🏆 RANK : 401-600

NIRF Overall 2021
🏆 RANK : 41

NIRF Engineering 2021
🏆 RANK : 20

THE Asia University 2021
🏆 RANK : 201-250

NIRF Research 2021
🏆 RANK : 31

Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2021
🏆 RANK : Band-Performer

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+91-9432892150

Website: www.nitrkl.ac.in

REGISTRATION DETAILS

Registration is open to Faculty members in all disciplines of Engineering, Sciences, Mathematics, Physics, Post Doctoral Fellows, Research Scholars/ PG/ UG students. For registration use the following link:

https://forms.gle/LcbECfJctAvYcmfu8

Last Date of Registration:
~~20ᵗʰ April 2022~~ **27ᵗʰ April 2022**

Registration Type	Fees (Non - Refundable)
Faculty/Industry Personnel	₹ 500
Students	₹ 200

MODE OF PAYMENT: (Online only)

Please transfer the Fee amount to the following bank account (details given below). Attach the payment receipt along with the google form for registration (link mentioned above).

Name: CONTINUING EDUCATION NIT ROURKELA
Acct. No.: 10138951784
Bank: State Bank of India
Branch: NIT Campus Rourkela
IFS Code: SBIN0002109

Online certificates will be given to the participants who attend all sessions of the course.