

A Hands-on Workshop on Computational Approaches in Engineering Problems with AI/ML

(Online Mode)
16th - 20th March, 2026



Organized by

Department of Mechanical Engineering
&

Department of Electronics and
Communication Engineering

National Institute of Technology Rourkela
Rourkela-769008, Odisha, India

Coordinators

Dr. Soumyajit Roy (ME)
Dr. Sandip Ghosal (EC)

About the Workshop

The 5-day hands-on workshop on “Computational Approaches in Engineering Problems with AI/ML” is designed to provide an in-depth understanding of the conventional and emerging computational techniques used to attack various engineering challenges, ranging from the analysis of structural components like Beams, Plates, Inflatable Structures for Space Applications, Waves for Seismic Activities, Kinematics of Industrial Manipulators, Modern Control Strategies for Fighter Aircrafts to emerging RF technologies, Machine Learning for RF, EDA tools and its application in next-generation communication and Sensing.

Highlights of the Program

- ✓ Computational Structural Analysis / Inflatable Structures for Space Applications.
- ✓ Waves for Seismic Activities.
- ✓ Modern Control Strategies for Fighter Aircraft.
- ✓ Computer Algebraic System for Industrial Manipulators.
- ✓ AI/ML for Acoustic and Electromagnetic Waves.
- ✓ UAV/Ground Penetrating Radar.
- ✓ Recent ML Advancements / Big Data and LLM.
- ✓ Hands-on Python/Mathematica/Ansys/MATLAB.

Target Audience

UG/PG/MS/Ph.D. students/ research scholars, staff/faculty members, and industry professionals interested in learning emerging computational methods.

E-certificates will be provided to the registered participants upon successfully completing the workshop.

Registration Details

The registration fee (non-refundable) for various participants for attending the short-term course is given below:

Registration Type	Fee (including 18% GST)
Student/Technical Staff	Rs. 499
Faculty Member	Rs. 899
Industry Professional	Rs. 1299

Note: Registration does not include food and lodging. NIT Rourkela students/staff/faculty members are exempted from registration fee.

Bank A/C Details for Paying Registration Fee: The registration fee is to be deposited in the following bank account:

Account Name	Continuing Education, NIT Rourkela
Account Number	101 3895 1784
Bank Name	State Bank of India
Branch Name	NIT Rourkela Campus (2109)
IFS Code	SBIN0002109

Please register here after fee payment

Registration Link:

<https://forms.gle/2ZhKCie9qH6KuNRE7>

Registration deadline 15/03/2026

Contact: Tel: +91-661-246-2470

Email: ghosals@nitrkl.ac.in

National Institute of Technology Rourkela

NIT Rourkela is one of the country's premier national-level institutions for technical education and is funded by the Government of India. The government of India has elevated the Regional Engineering College, Rourkela to a deemed university under the name of National Institute of Technology Rourkela. Please visit <https://www.nitrkl.ac.in/> to know more about NIT Rourkela.

Department of Mechanical Engineering

The Mechanical Engineering Department offers a UG program and four regular PG programs in the specialization of Mechanical Systems Design and Control, Manufacturing and Automation Engineering, Thermal Science and Energy Engineering and Industrial Refrigeration and Cryogenic Engineering, with a mission to nurture its students with fundamentals of the subject and up-to-date technological skills. It also offers M. Tech. and Ph. D. for regular as well as sponsored candidates. Please visit <https://www.nitrkl.ac.in/ME/> to know more about the Department of ME

Department of Electronics and Communication Engineering

The department offers various UG and PG programs with the mission to advance and spread knowledge in the areas of Electronics, Communication, RF and Microwave Systems, Instrumentation, Signal Processing and VLSI, leading to the creation of wealth and welfare of humanity. The department also offers M. Tech. and Ph. D. for regular as well as sponsored candidates. Please visit <https://www.nitrkl.ac.in/EC/> to know more about the Department of ECE.

Distinguished Speakers

- **Dr. Soham Roychowdhury**
Associate Professor, IIT Bhubaneswar
- **Dr. Aman Kumar**
Assistant Professor, IIT(ISM) Dhanbad
- **Dr. Samiran Das**
Assistant Professor, IISER Bhopal
- **Dr. Pankaj Kumar**
Assistant Professor, Thapar University
- **Dr. Bijoy Krishna Mukherjee**
Associate Professor, NERIST, Itanagar
- **Dr. Anirban Bhowal**
Assistant Professor, NIT Rourkela
- **Dr. Arnab Pattanayak**
Assistant Professor, Thapar University
- **Dr. Jogesh Chandra Dash**
Assistant Professor, NIT Rourkela
- **Dr. Sushmita Das**
Assistant Professor, Bennet University
- **Dr. Soumitra Kumar Dinda**
Assistant Professor, NIT Rourkela
- **Dr. Saptarshi Chatterjee**
Assistant Professor, NIT Rourkela

**Hands-on demo on
Computer Algebraic System
by industry experts with
Wolfram Mathematica**

Organizing Committee

PATRON

Prof. Swadesh Kumar Pratihar
Dean, SRICCE, NIT Rourkela

CHAIRMAN

Prof. Saroj Kumar Patel
Head, ME, NIT Rourkela

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SCAN TO PAY



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Merchant Name:
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SCAN TO REGISTER



Google Form for
Registration

