About the Department :

Mechanical Engineering is often called the mother of all engineering. It covers a host of subjects: properties of materials, structural design, material processing, manufacturing, heat engines, refrigeration and air conditioning, industrial management, robotics and much more. The Mechanical Engineering Department of NIT, Rourkela is known for research in most of these fields. The main focus of research are on mechanical vibration, robotics, CAD/CAM, precision engineering, Metal forming, manufacturing, CFD, Industrial refrigeration and Cryogenics.

The academic programmes of the department reflect not only the core areas of Mechanical Engineer but also the research specialization of the faculty. The department at present has over one hundred research scholars pursuing projects on diverse fields. The faculty is organized under three divisions and six groups. All the groups are working in close co-operation while retaining individual identities. Many Research and Development projects being pursued by the faculty are sponsored by Government agencies and private industries. Among the major sponsors are BRNS, DST, ARDB, BRFST, HBL Power Systems and Lechier India Private Limited.

About the National Institute of Technology:

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. The city of Rourkela is a bustling industrial city, cosmopolitan by nature and is well connected to all parts of the country by road and rail. The nearest airports are Ranchi, Kolkata and Bhubaneswar, which are well connected by trains. Please visit <u>https://www.nitrkl.ac.in/About.aspx</u> to know more about NIT Rourkela.

Objectives of the Programme:

Artificial Intelligence (AI) is one of the pillars of the Fourth Industrial Revolution, or what is commonly known as Industry 4.0. This workshop focuses on applying AI techniques in vibration control and vibration condition monitoring aspects of mechanical and aerospace systems. The workshop also intends to cover the various signal-processing techniques used for vibration analysis. This workshop also intends to provides hands-on experience to the participants on various AI tools used in the industry for vibrational study.

Eminent Experts:

The experts for this programme are from IITs/NITs/IIITs/other reputed institutions/industries and host institution NIT Rourkela.

Target Participants:

The PG/Ph.D.students can attend the program after shortlisting.

Registration link:

https://forms.gle/erizHbrp5dTJp8Kc8

The last date to fill registration form is: **20th May 2023** The selected participants will be informed through mail by **24th May 2023**.

Patron: Prof. K. Umamheshwar Rao Director, NIT Rourkela

Chairmen:

Prof. S.K. Sahoo (HOD ME, NITR) Cooridnators:

Dr. Balaji P.S. (Mechanical Engineering, NITR) Prof. J. Srinivas (Mechanical Engineering, NITR)

Address for Communications: Dr. Balaji P.S., Assistant Professor, Mech. Engg., Email:psbalaji@nitrkl.ac.in; M. No.: +91 7395979565







SERB Sponsored High-End Workshop on Artificial Intelligence Techniques for Analysis and Control of Mechanical and Aerospace systems 12th - 18th June, 2023



Department of Mechanical Engineering National Institute of Technology Rourkela Rourkela-769008, Odisha, India

Under the Karyashala scheme of Accelerate Vigyan, SERB





SERB Sponsored One Week High-End Workshop on



Artificial Intelligence Techniques for Analysis and Control of Mechanical and Aerospace systems

12th - 18th June, 2023

(Physical Mode at NIT Rourkela)

This is to certify that:

- Dr./ Mr. / Ms. / Mrs. ________ is a bonafide student of our University / Institute / College and will assume full responsibility for actively participating in the one week Workshop on "Artificial Intelligence Techniques for Analysis and Control of Mechanical and Aerospace systems" sponsored by SERB under the Accelerate Vigyan Scheme, and organized by NIT Rourkela from 12th June 2023 to 18th June, 2023.
- 2. The Applicant is a Full-time / part-time student of our University/ Institute/ College and enrolled in Ph.D/ Master's Programme in Department
- 3. The candidate has secured _____% / CGPA till date (if applicable).
- 4. The University/Institute/College also endorses the conduct of the applicant to be of highest order who bears a good moral character.
- 5. The University/ Institute/ College has "No-Objection" for the candidate participation during the above said period.
- 6. The candidate, if selected for participation, shall be duly permitted to attend the Workshop on physical mode.

Date:

Place:

Signature and seal with name (Head of the Department)