

NIT ROURKELA RANKINGS

2022	Ranked 15 in NIRF Engineering
2022	Ranked 39 in NIRF Overall
2022	Ranked 24 in NIRF Research
2022	Ranked between 271-280 in QS World University-ASIA Rankings
2022	Ranked between 801-1000 in THE World University

Source: <https://nitrkl.ac.in/About/Rankings>

ABOUT THE COURSE

The applications of CFD in engineering problems have changed a lot over the decades and have become truly multidisciplinary. The major focus of most of this work is to unravel complex flow physics involved in different multidisciplinary areas, such as biomedical, chemical industry, steel industry, stealth technology, etc. The focus of this program is to get a broader understanding of various cutting-edge research going on in the field of fluid dynamics and heat transfer.

Coordinators

Dr. Sushil Kumar Rathore
Dr. Jnana Ranjan Senapati
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ABOUT NIT ROURKELA

National Institute of Technology Rourkela is an institute of national importance created under the act of parliament. NIT Rourkela provides quality education in a diverse and multi-cultural environment. The mission of the institute is to become an internationally acclaimed institution of higher learning that will serve as a source of knowledge and expertise for the society and be a preferred destination for both UG and PG studies. The vision of the institute is to advance and spread knowledge in the area of science and technology leading to creation of wealth and welfare of humanity.

The institute provides quality education in a diverse and multicultural environment. The mission of the institute is to become an internationally acclaimed institution of higher learning that will serve as a source of knowledge and expertise for the society and be a preferred destination for undergraduate and post graduate studies. The institute is offering undergraduate, post graduate and PhD programme in 21 branches of Engineering. The institute research centres are engaged in consultancy and research activities of several government bodies such as DST, DAE, CSIR, DRDO, BARC, ISRO and private industries.

DEPARTMENT OF MECHANICAL ENGINEERING

The Mechanical Engineering of NIT Rourkela comprises three divisions namely design, manufacturing and thermal engineering. The department is known for research in variety of fields that include mechanical vibration, robotics, heat transfer, 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 Engineering; but also the research specialization of the faculty. The department at present has over one hundred research scholars pursuing the research on diverse fields. All the groups are working in close co-operation while retaining individual identities. Many Research and Development



A
FIVE DAYS
SHORT TERM COURSE
on

CFD FOR APPLIED
ENGINEERING PROBLEMS
WITH
HANDS-ON PRACTICE

December 19 - 23, 2022
(Hybrid Mode)

Patron

Prof. K. Umamaheshwar Rao,
Director, NIT Rourkela

Chairman

Prof. S. K. Sahoo, HOD-ME

Coordinators

Dr. Sushil K. Rathore, ME
Dr. Jnana R. Senapati, ME



Department of Mechanical Engineering
National Institute of Technology
Rourkela-769008



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COURSE CONTENT

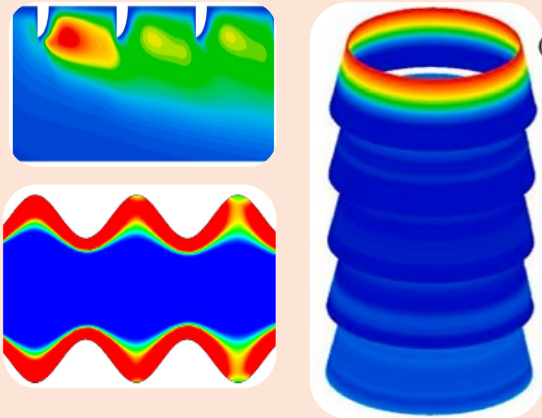
The course will cover the following major topics;

- Introduction to basics of computational fluid dynamics (CFD).
- Applications of CFD to various engineering problems.
- Computational multiphase flow.
- Computational heat transfer.
- Turbulence flow and heat transfer.
- Bio heat transfer .
- CFD in chemical industry.
- CFD applications of jet problems.

TRAINING SESSION

The training session will cover the following topics;

- Basics of computational fluid dynamics.
- CFD simulations using commercial software. (Geometry, meshing, boundary conditions, solution)
- Applications of computational fluid flow and heat transfer for various engineering problems.



ELIGIBILITY

Participation in this workshop is open to Post Doctoral Fellows, Research Scholars/ PG/ UG students and Faculty of recognized technical institutes, Researchers from the research laboratory, Industrial Person/Engineers and any other interested personnel. The successful participants will be given a participation certificate.

IMPORTANT DATES

The last date for the registration is **12/12/22**.

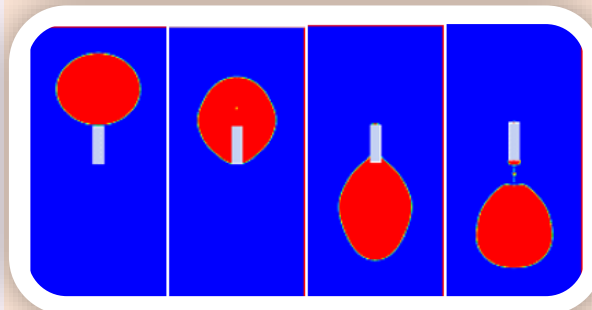
TARGET AUDIENCE

Maximum number of applicants is limited to 50. The selected applicants will be provided a secured meeting code of the web platform one day before the commencement of course.

ADDRESS FOR CORRESPONDENCE:

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COURSE FEE*

For Online

- Student: 600/-
- Academic faculties: 1000/-
- Industry professionals: 2000/-

For Offline (Physical)

- Student: 1000/-
- Academic faculties: 1500/-
- Industry professionals: 3000/-

* INCLUSIVE OF GST

- ⇒ No TA/DA will be Provided to the participants.
- ⇒ Accommodation charges will be paid by the participants only (for Offline participants).

REGISTRATION FORM

For registration use the following link:

<https://forms.gle/BLhSsUCZx9p9oCrg8>

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.

FOR FURTHER ASSISTANCE

Kindly contact us through the email:-
rathoresk@gmail.com

For program related queries,
Student coordinators

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