Five-Day Workshop
on

Bioplastics: Futuristic Materials for Sustainable Innovations, Applications, and Circular Economy Solutions

Hybrid mode

5th - 9th January 2026

Organized by

Department of Food Process Engineering,
National Institute of Technology Rourkela,
Sundargarh, Odisha, India - 769008

Sponsered by

Anusandhan
National
Research
Foundation

Anusandhan National Research Foundation (ANRF), Government of India.

About the Institute

The National Institute of Technology Rourkela (NIT Rourkela), formerly known as the Regional Engineering College until its renaming on 26th June 2002, is a premier government-funded institution dedicated to excellence in Engineering, Science, and Technology. Located in the steel city of Rourkela, Odisha, India, it is one of the 31 National Institutes of Technology in the country and has been recognized as an Institute of National Importance under the National Institutes of Technology Act, 2007. NIT Rourkela holds prestigious rankings, including 13th in the NIRF Rankings 2025 for Indian Engineering Universities, 396th in the QS Asia University Rankings 2025, 167th in the QS World University Sustainable Rankings 2025 (Asia region), and within the 401-600 band in the Times Higher Education World University Rankings (Engineering) for 2025–26. The institute's mission is to become an internationally acclaimed center of learning, serving as a beacon of knowledge and expertise for society while establishing itself as a preferred destination for undergraduate and postgraduate studies.

NIRF Ranking - 2025

About the Deparmentt

The Food process engineering department at National Institute of Technology Rourkela blends engineering disciplines with a strong understanding of food and food science. The vision of the department is to become an internationally acclaimed department of higher learning in the field of Food Process Engineering that will serve as a source of knowledge and expertise for the food processing industries and a preferred destination for undergraduate and graduate studies. The Department of Food Process Engineering offers academic programmes such as B.Tech, M.Tech, and PhD in Food Process Engineering.

The academic and research activities in the department focus on the frontier areas of food process engineering, such as food properties and prediction, post-harvest operations, food quality and safety, transport process and kinetics, product development and ingredients innovation, food packaging and storage engineering, computer-aided food engineering, energy efficiency, process control and efficiency, automation and manufacturing systems. Food process engineers can specialize in design, development, research, maintenance, and operations, such as processing, packaging, and transportation.

About the Course

The Department of Food Process Engineering, National Institute of Technology Rourkela, is delighted to organize the Five-Day Workshop on "Bioplastics: Futuristic Materials for Sustainable Innovations, Applications, and Circular Economy Solutions." This workshop aims to serve as an enthusiastic platform to explore innovative research, transformative technologies, and modern strategies by gaining practical experience in the production and application of bioplastics as futuristic materials for food and packaging systems. This workshop will bring together academia, industry, policymakers, and innovators to explore advanced research and emerging technologies in bioplastics and other sustainable materials development. With a strong focus on food processing and packaging applications, the event aims to highlight the role of natural resources, green processing technologies, and circular economy models in shaping the future of environmentally responsible materials. The workshop will serve as a global platform for knowledge exchange, fostering collaborations, and inspiring innovations that can transform the future of sustainable materials and reduce plastic pollution worldwide.

Speakers

Distinguished national and international experts in the fields of food packaging, food process engineering, food science, and technology will deliver the lectures.

Who Can Participate

This five-day high-end workshop will benefit researchers, students, faculty members, and industrial professionals seeking opportunities to explore advanced research and emerging technologies in biopolymers, bioplastics, and sustainable material development.

Course Content

The workshop will cover, but is not limited to, the following topics:

- Introduction to Bioplastics
- Types, Sources & Classifications
- Feedstocks for Bioplastics
- Bioplastics vs. Conventional Plastics
- Polymer Chemistry and Biosynthesis of Bioplastics
- Processing Techniques like Extrusion, Moulding & 3D Printing
- Functional & Smart Bioplastics
- Characterization of Bioplastics
- Applications in Packaging, Agriculture, Biomedical, and Textiles
- Environmental Impact and Policy Landscape
- Biodegradability Testing and Characterization Methods
- Life Cycle Assessment (LCA), Certifications, Labelling, and International Policies of Bioplastics

Registration Details

Click link: https://forms.gle/INJEYaETcLeE5sHL7

Registration fee (including 18% GST) for all online participants: Rs. 590/-

Registration fee for offline participants:

- Students: Rs. 1180/-
- Faculty/Scientist/Industrialist: Rs. 2360/-

Available seats for offline participation: 30 (on a first-come, first-served basis).

Last date of registration: 02/01/2026.

A certificate will be issued to registered participants with more than 90% attendance.

Payment Details

NEFT/RTGS/IMPS using the following information:

- Account Name: Continuing Education
- Account No: 10138951784
- Bank: State Bank of India
- Branch: NIT Rourkela Campus
- IFSC: SBIN0002109
- UPID: 013895178410@sbi

Organizing Committee

Patron

Prof. K. Umamaheshwar Rao

Director, NIT Rourkela.

Chariman

Prof. Sabyasachi Mishra

Head, Department of Food Process Engineering

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Course Coordinators

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Student Coordinators

Ms. Devika K. K (Research Scholar)

Ms. K. Vijayalakshmi (Research Scholar)

Ms. Abhipriya Patra (Research Scholar)

Mr. Piyush Sharma (Research Scholar)

Dept. of Food Process Engineering

Phone: 9188215802 / 7978470780

Scan for UPI payment

Accomodation

The accommodation facility will be provided on a first-come, first-served basis.

How to reach location

NIT-Rourkela is an Institute of National Importance and is well connected by Rail. It is located at a distance of about 7 KMs from Rourkela Railway Station in Odisha State