## **Course Overview**

The Department of Food Process Engineering, NIT Rourkela, is organizing a Five-Day Online Certificate Course (20 Hours) on Food Analysis and Quality Control from October 24-28, 2025 (Friday to Tuesday). This program is designed to provide participants with a strong foundation in food analysis, analytical techniques, and quality control systems. The course integrates theoretical knowledge with practical demonstrations, covering fundamental, instrumental, and advanced analytical methods, food safety regulations, and quality management tools. By bringing together experts and hands-on sessions, the program equips participants with essential skills to address current challenges and future trends in food quality and safety.

# **Objectives**

- Provide fundamental knowledge of food analysis and its role in the food industry.
- Train participants in instrumental and advanced analytical techniques for food quality evaluation.
- Familiarize learners with food safety standards, regulatory frameworks, and quality management systems.
- Introduce recent advances, rapid methods, and emerging tools in food analysis and quality control.

# **Organized By**

# **Department of Food Process Engineering**, **NIT Rourkela**

(Ministry of Education, Govt. of India)

# **Program Coordinators**



Dr. Vivek Kambhampati is an Professor in Department of Food Process Engineering, NIT Rourkela since June 2023. He pursued his PhD in Food Process Engineering from the National Institute of Technology

(NIT) Rourkela. Before joining NIT Rourkela, he served as an Assistant Professor in the Indian Institute of Plantation Management, Bengaluru, An Autonomous Organization of the Ministry of Commerce and Industry, GoI (2020-2023) and Karunya Institute of Technology and Sciences (2019-2020). His research interest includes process modelling & optimization, food safety & quality management, functional foods, drying & dehydration, novel non-thermal technology, and postharvest management.



Dr. Arun Prasath Venugopal is an Assistant Professor in the Department of Food Process Engineering at NIT Rourkela. He earned his PhD in Agricultural Processing and Food Engineering from Tamil Nadu Agricultural University (TNAU)

from 2012 to 2016. With a rich academic background, he has served as an Assistant Professor at Tamil Nadu Agricultural University (2016-2020) and Kerala Agricultural University (2015-2016) before joining NIT Rourkela in 2020. His research expertise encompasses cutting-edge fields like food packaging and storage, cold plasma technology, and green extraction techniques, focusing on sustainable, innovative approaches to food preservation and quality.



Five-day Certificate Course on

Food Analysis and

**Quality Control (FAQC-2025)** 



# **Online Certificate Course**



24th-28th October 2025



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

# **Program Structure**

#### Day I

Lecture 1: Importance of food analysis in food industries.

Lecture 2: Sampling techniques and sample preparation in food analysis.

**Tutorial/practical:** Practical demonstration of proximate analysis and result Interpretation-Macro & micro nutrients.

#### Day II

Lecture 1: Chromatographic techniques.

Lecture 2: Spectroscopic techniques.

**Tutorial/practical:** Practical demonstration and result interpretation of chromatographic and spectroscopic techniques.

#### Day III

Lecture 1: Detection of food additives, adulterants, and contaminants.

Lecture 2: Microbiological analysis of foods.

**Tutorial/practical:** Practical demonstration of rheological and thermal analysis of foods and result interpretation.

#### Day IV

Lecture 1: Sensory evaluation and consumer acceptance testing.

Lecture 2: Quality management system (QMS).

Tutorial/practical: Statistical quality control and data interpretation.

#### Day V

**Lecture 1**: Food labelling and compliance with FSSAI/Codex regulations.

Lecture 2: Rapid and non-destructive method for food quality assessment.

**Lecture 3**: QC tools, recent advances and future trends in food analysis.

## **About NIT Rourkela**

The National Institute of Technology Rourkela (NIT Rourkela), established in 1961, is one of India's premier institutes of higher technical education. Recognized as an Institute of National Importance by the Government of India, it is renowned for its excellence in teaching, research, and innovation. The institute consistently ranks among the top engineering and research universities in India and is committed to advancing knowledge in science, engineering, and technology for societal benefit. With world-class infrastructure, experienced faculty, and strong industry collaborations, NIT Rourkela provides a vibrant environment for learning, research, and professional growth.

## Who can attend?

- B. Tech. and M. Tech. students
- 1st year PhD Scholars
- Industry professionals/Executives



## **Payment Details**

Account Name: Continuing Education,

NIT Rourkela

Account Number: 10138951784

Bank: State Bank of India Branch: NIT Rourkela Campus IFSC: **SBIN0002109** 



Course Schedule: 24th-28th October (Friday to Tuesday)

**Timing**: 10.00 AM to 04:00 PM

Course Fee: Rs. 590/- (500+ 18% GST)

Last date of course registration: 22<sup>nd</sup> October 2025

Register here:



https://forms.gle/k1thNQ74w92aGpNi9

\*Certificates will be provided to the participants\*

# For more details, Contact Course Coordinators

## Dr. Vivek Kambhampati

Assistant Professor Tel: +91- 8122590382

Email: kambhampativ@nitrkl.ac.in

## Dr. Arun Prasath Venugopal

Assistant Professor Tel: +91- 9597775712 Email: varun@nitrkl.ac.in

## **Student Coordinator(s)**

1. Divyadarshini S, PhD Scholar - 9047036179

2. Rasmi P K, PhD Scholar - 8943011765