

## About IIT Kharagpur



Kharagpur - a small town tucked away in the eastern corner of India, famous until 1950 as home to the longest railway platform in the world - became the nursery where the seed of the IIT system was planted in 1951. IIT Kharagpur started its journey in the old Hijli Detention Camp in Eastern India, where some of the country's great freedom fighters toiled and sacrificed their lives for India's independence. Spurred by the success of IIT Kharagpur, four younger IITs sprouted around the country in the two following decades, and from these five came thousands of IITians, the brand ambassadors of modern India. It was the success of this one institution at Kharagpur that wrote India's technological odyssey.

The Institute takes pride in its relentless effort to provide the best platform for both education as well as research in the areas of science and technology, infrastructure designs, entrepreneurship, law, management, and medical science and technology. IITKGP is not just the place to study technology, it is the place where students are taught to dream about the future of technology and beam across disciplines, making differences enough to change the world.

### Program Features / Structure

Classroom lectures – 70%

INDUSTRY VISIT – 15%

Hands-on work with  
LABORATORY  
EXPERIMENTATION - 15%

### Program Schedule and Venue

1 week, 17 – 24 June 2019  
(9:30 AM – 5:30 PM)

Agricultural and Food  
Engineering  
Department IIT  
Kharagpur

Program Fee  
Nil - for AICTE-QIP  
sponsored  
participants

For others - INR  
15,000/- (Fifteen  
thousand) + GST @18%  
per participant

### Who will benefit? (Eligibility)

Are you a Faculty of an  
AICTE approved college of  
Agricultural, Engineering,  
Food Technology or Food  
Engineering, Chemical or  
Mechanical Engineering?  
then Pl. APPLY

Last day of  
Registration

30  
June 2020

### Accommodation

Accommodation will be  
provided to the AICTE-QIP  
sponsored participants at  
the campus Hostels. For  
other participants, the same  
will be provided on  
chargeable basis as per rule.

## How to Apply

Use the link: <https://erp.iitkgp.ac.in/CEP/courses.htm> to apply ONLINE.



Payment if applicable is to be done **ONLINE** after getting short listed for the program.

## Contact Us

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# AICTE QIP

## QUALITY IMPROVEMENT PROGRAMME

Indian Institute of Technology Kharagpur  
2019

# FOOD PROCESSING, PRESERVATION AND COLD STORAGE

1 Week  
06 – 11 JULY 2020

## Introduction / Overview

The course aims at touching upon some fundamental operations in food processing and preservation. In fact the subject is so vast that it is impossible to cover up all the aspects in week program. In most of the Agricultural universities, food processing or food engineering is not even touched upon. Hence, some preliminary as well as some overview of the subject is of great importance to those who have completed their under graduate course from similar universities / institutes. Over the last 6-7 decades IIT Kharagpur has developed this part of science and technologies along with dairy science and engineering. It will be a great opportunities for the participant to come across the recent developments in food science and engineering during the course of this programme.

## Program Objectives

The fundamental objective of this short term course is to bring to the knowledge of the participants from all over the country about the recent developments which came about in Agricultural and Food Engineering Department of the institute. Since, most of the colleges or universities do not have any industrial collaboration, this programme has also aimed at visiting some of the very relevant industries in and around Kharagpur. Obviously, the participants will also get exposure to do some hands on experiments.

## What you will learn

### Program Content

**Introduction to food processing and preservation**

**Air -water relationships in food engineering**

**Refractance window drying**

**Food Microbiology**

**Irradiation and Freeze drying**

**Nano Packaging and Storage**

**High pressure processing**

**Solar drying, Novel thermal processing of food**

**Refrigeration and air conditioning**

**Food Freezing**

**Cold Storage**

**Rice processing**

**Solvent Extraction of oil**

## About the Faculty

### Coordinator

**Prof. Tridib Kumar Goswami:** A NAAS, ISAE, IE, AABS, FRSC Fellow, is Professor, HAG of Agricultural and Food Engineering Department, IIT Kharagpur. He has 6 Indian Patents, published 130 papers, written 4 books and 11 book chapters. Out of 14 Ph.D. he guided, 3 have been awarded Jawaharlal Nehru Award (ICAR).

### Other faculty for the course

**Prof. A.K. Datta:** Area of Interest - Dairy and Food Process Engineering (Process Systems Analysis and Control, Transport Phenomena in Food Process Engineering, Process Equipment Design).

**Dr. P. P. Tripathy:** Research Interest: CFD applications in Food Processing, Machine Vision for Food Quality & Safety Assessment, Solar Energy Utilization in Food Processing, CO<sub>2</sub> Mitigation & Utilization.

**Dr. Kanishka Bhunia:** Research interest: Functional food packaging, Food safety and risk assessment, Food Stability, Transport phenomena in food processes.

**Prof. H.N. Mishra:** Research interest: Health Food, Ready to Eat, Food Products and Process Development, Shelf life extension of food, Packaging of food, Instant tea and coffee.

**Prof. P.S. Rao:** Research interest: pulse electric field, High pressure processing, Aquacultural engineering, Grain storage and structures, Grain process engineering.

**Dr. Jayeeta Mitra:** Area of Interest - Food Process Engineering (Food packaging, coating and storage studies, Shelflife modelling, food quality analysis, mathematical modelling (ANN, GA, Fuzzy logic).

**Dr. P.P. Srivastav:** Research interest: Indigenous product development, Food microbiology, Grain processing, Modelling