

National Skill Development Program

CSIR- Integrated Skill Initiative

FERMENTATION TECHNOLOGY



Dr. Sourish Bhattacharya
CSIR-CSMCRI



Prof. Antonio Zuorro,
Sapienza University, Rome



Dr. Monica Trif
CENTIV Germany



Dr. Debashish Ghosh,
IIP, Dehradun



Dr. Rahul Bhambure
NCL Pune



Dr. Kanhaiya Kumar
IIIM Jammu



Dr. H. H. Salama
NRC, Cairo, Egypt



Dr. Mangesh Vetal
Head, TMD, NCL, Pune



CSIR-CSMCRI
CSIR- Central Salt & Marine Chemicals Research Institute
10th – 14th February, 2026



Preface

Background

Microbes are important in every part of our life and are widely exploited industrially in agro, food, pharma, chemical, energy, waste treatment, etc. The process for product development may differ but the underlining principles in all the above mentioned processes involves fermentation technology. The skill development programme on fermentation technology aims to introduce the basics of industrial fermentation process involving basic knowledge required for fermentation, parameters to be controlled during fermentation, its industrial application and recent technological advances.

Beneficiaries of the course

Process Engineers; Quality Control Manager; Lab Technicians/Assistants; Shift Engineers; Entrepreneurs in Pharma, biotech and food industries as well as fermentation based industries.

Benefits of the course

The courses will be useful for the graduates aspiring to work in Pharma, biotech and food industries, fermentation industries or for the person who are already employed in the industries to sharpen their skills.

Focus on current needs of fermentation industry.

Course duration: 4 days

COURSE DETAILS

TRAINING ON FERMENTATION PRINCIPLES

BIOREACTOR DESIGN

HANDS ON PILOT SCALE FERMENTATION EXPERIENCES.

DOWNSTREAM (PURIFICATION) PROCESS AND PRODUCT FORMULATION.

**Material and Energy Balance Computations
and Process Economics**

“Certificate Course in Fermentation Technology”

Date: 10th – 14th February’ 2026

REGISTRATION FORM

Name _____

(First name)

(Last name)

Gender Male Female Date of Birth _____/_____/_____

Home Address _____

Organization/company _____

Aadhar Card No. _____

Educational qualification _____ Sponsored by/ Self interested _____

Contact no . (Home) _____ (Mobile) _____

Registration fee: Government/ Industry

Self-Sponsored Students/ Individuals : ₹ 1000/- +18%GST/- Industry
Sponsored/ Entrepreneurs : ₹ 5000/- +18%GST/- (Only)

DIGITAL PAYMENT ONLY WILL BE ACCEPTED and NO CASH TRANSACTION.

Kindly submit completed form on/ before 2th February 2026,

To Dr. Sourish Bhattacharya at email : sourishb@csmcri.res.in,

+91-8017750689

NOTE: Candidates with all required information and fees deposited through digital mode only will be accepted and will be selected based on their CV in the said training program. Please submit a printed copy of fees receipt and a xerox copy of the AADHAR Card during training program, if selected.

Accommodation for staying at Bhavnagar has to be arranged by Candidates only. The candidate has to produce their double dose completion certificate for introducing COVID-19 protective vaccines during joining to the training program. No accommodation will be provided by the Institute.

Experts:

Dr. Sourish Bhattacharya is working as a Scientist at CSIR-CSMCRI, Bhavnagar Gujarat, India. He is having a strong background in the area of microalgal biotechnology, microalgal biofuel, biopolymers and nutraceuticals for therapeutic applications.

Dr. Debashish Ghosh is having 17 years of R&D experience in microbial fermentation and bioprocess development. Dr. Ghosh primarily works on bioprocess development from biomass to 2nd and 4th generation biofuels/oleochemicals/nutraceuticals/biopolymers through ethanologenic and oleaginous yeast mediated fermentation, material resource efficiency, life cycle impact assessment. Presently Dr. Ghosh is heading Biochemistry and Biotechnology Area, Material Resource Efficiency Division, at CSIR-IIP.

Prof. Heba H. Salama is working as Associate Professor at National Research Centre Food Industries and Nutrition Research Institute, Dairy Science Dept., Dokki, Cairo, Egypt. She is engaged in research work related to dairy science and technology.

Mangesh Vetal is working as a Head-Technology Management Group at NCL, Pune and has experience in Technology Transfer.

Dr. Rahul Bhambure is currently working as a Senior Scientist at NCL, Pune. His expertise is in the area of process development for protein drugs molecules used for treatment of infectious diseases.

Professor Antonio Zuorro is working as Professor at Sapienza University, Rome, Italy. His area of expertise is in the area of microbial fermentation.

Dr. Kanhaiya Kumar is a Senior Scientist at the CSIR - Indian Institute of Integrative Medicine (IIIM), Jammu, specializing in fermentation and microbial biotechnology. His early research focused on bioenergy production, secondary metabolite extraction, and CO₂ sequestration using microalgae. At NTNU, his work expanded to deep-phenotype studies of microorganisms, with a particular focus on Streptomyces for antibiotic discovery using metabolomics and fermentation technology.

Dr. Trif has been involved in a Socrates Intensive Programme for 'Food and Health', and is currently working as Project Manager\Product Development Manager, more than 15 years relevant expertise in food and nutraceutical research by participation in various international/national projects related to research and innovation, and involved in developing more than 10 utility models (patents-like intellectual property right to protect inventions.



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CSIR-CSMCRI

**CSIR- Central Salt & Marine Chemicals Research
Institute Gijubhai Badheka Marg, Bhavnagar,
Gujarat 364002**



**CSIR- Integrated
Skill Initiative**



CSIR Integrated Skill Initiative

Skill Development Programme

केन्द्रीय नमक व समुद्री रसायन अनुसंधान संस्थान
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद, भारत)
गिजूभाई बधेका मार्ग, भावनगर 364002 (गुजरात)



CSIR Integrated Skill
Initiative

CSIR- Central Salt & Marine Chemicals Research Institute

Gijubhai Badheka Marg, Bhavnagar-364002, Gujarat (INDIA)

Application Form (आवेदन पत्र)

1.	Name of the Candidate उम्मीदवार का नाम	:	Photo
2.	Father's / Guardian's Name पिता/ पति का नाम	:	
3.	Date of Birth जन्म तिथि	:	
4.	Category वर्ग	: General / OBC/ SC / ST	
5.	Address (Permanent) पता (स्थायी)	:	
6.	Address (Communication) पता (पत्र व्यवहार)	:	
7.	Educational Qualifications शैक्षणिक योग्यता	:	
8.	Phone No. फोन/ मोबाइल नंबर	:	
9.	E mail ईमेल	:	
10.	AADHAAR Card Number आधार कार्ड नंबर	:	
Candidate's Signature उम्मीदवार के हस्ताक्षर			
Details of enclosures			