केन्द्रीय नमक व समुद्री रसायन अनुसंधान संस्थान
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद, भारत)
गिजूभाई बधेका मार्ग ,भावनगर 364002, गुजरात
CSIR- Central Salt & Marine Chemicals Research Institute
(Council of Scientific & Industrial Research)
Gijubhai Badheka Marg, Bhavnagar – 364 002 (Gujarat)
www.csmcri.res.in

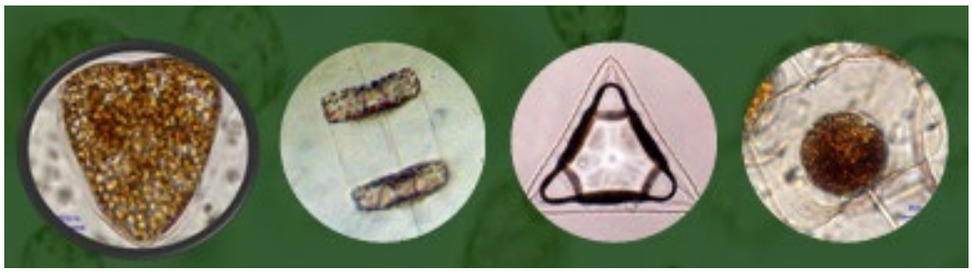
CSIR Integrated Skill Initiative

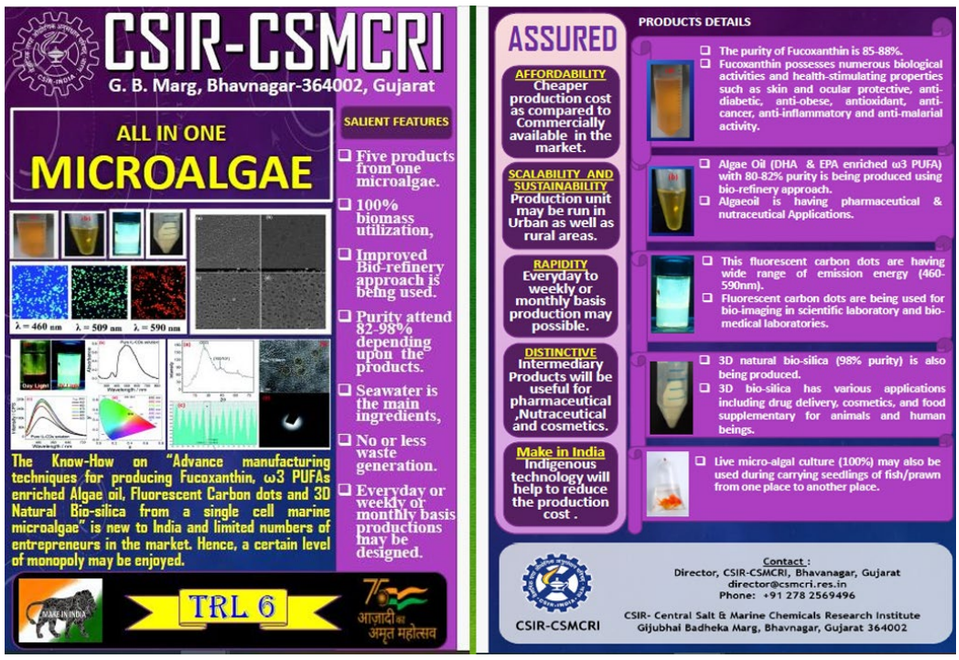
"सीएसआईआर एकीकृत कौशल पहल"
"CSIR-Integrated Skill Initiative"

Training Program on "Strategic Algal Techniques For Biomass Production and Entrepreneurship Development"

Date: 10–12th June 2026

Time 09:30 AM-5:45 PM





Venue

CSIR – CSMCRI,

Gijubhai Badheka Marg, Bhavnagar – 364 002 (Gujarat)

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Introduction

Microalgae are tiny, single- or multi-cellular photosynthetic organisms that can grow rapidly to generate colossal biomass. They are classified based on their diverse sizes, structures, and forms. Generally, microalgae consist of several essential metabolites, including sugars, proteins, lipids, and bio-silica. They have gradually drawn the attention of scientists and entrepreneurs due to their potential for high-value products, such as feed supplements for humans and animals, transport fuels, industrial chemicals, and pharmaceuticals.

The past few decades have witnessed substantial progress in establishing microalgae as a unique source of high-value compounds and therapeutic substances. They are also a promising biofuel feedstock in response to the rising energy crisis, climate change, and the depletion of natural resources. As an excellent source of various pigments (such as carotenoids and phycobiliproteins), proteins, vitamins, enzymes, minerals, amino acids, lipids, γ-linolenic acid, and biopolymers, microalgae have become central to integrated industrial processes. When exploited efficiently through optimized upstream and downstream processing, their unique chemical composition offers significant applications in the food, feed, fuel, and pharmaceutical sectors.

Due to their potential for high-value applications, producing these intracellular and extracellular compounds at scale requires the development of pure cultures of viable strains. Downstream processes for extracting these valuable products also require specialized skills to handle such microorganisms for large-scale biotechnological applications. Through digital and practical demonstrations, this program will generate awareness regarding the importance of microalgae, their upstream and downstream processing, and the resulting products. Furthermore, this initiative will highlight the importance of entrepreneurship in large-scale microalgal biomass production and provide relevant information on commercializing various derivative products.

National Skill Alignment

This program is conducted under the **"CSIR-Integrated Skill Initiative,"** a flagship mission dedicated to bridging the gap between academic research and industrial application.

- **Skill Development:** We focus on nurturing a specialized workforce with the technical proficiency required for large-scale biotechnological applications.
- **National Priorities:** This training is strictly aligned with India's national missions, including **Sustainable Resource Management**, **Renewable Energy (Biofuels)**, and the **Atmanirbhar Bharat** vision, empowering participants to drive innovation that supports the country's strategic and environmental goals.

Program Curriculum

The course provides a comprehensive roadmap from microscopic analysis to commercial entrepreneurship:

- **Morphology & Diversity:** Identifying and classifying microalgal strains.
- **Mass Cultivation:** Advanced techniques for large-scale upstream biomass production.
- **Downstream Processing:** Specialized skills for extracting and refining high-value metabolites.
- **Product Avenues:** Exploring industrial applications in food, feed, and pharmaceuticals.
- **Entrepreneurship Development:** Navigating the challenges of launching and scaling an algal-based venture.

Target Audience

This initiative is designed for **university researchers, postgraduate students, and aspiring entrepreneurs** who wish to gain hands-on experience and contribute to the nation's bio-economy.

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TRAINEE ENROLLMENT FORM

TITLE OF SKILL DEVELOPMENT PROGRAM	:	CSIR Integrated Skill Initiative on "Strategic Algal Techniques For Biomass Production and Entrepreneurship Development"			
DATE(S), TIME AND VENUE	:	Date: 10–12th June 2026 CSIR-CSMCRI, Gijubhai Badheka Marg, Bhavnagar – 364 002 (Gujarat)			
FULL NAME OF TRAINEE	:				
FATHER'S / HUSBAND'S NAME	:				
DATE OF BIRTH (DD/MM/YYYY)	:				
GENDER (MALE / FEMALE / OTHERS)	:				
CATEGORY (SC / ST / OBC / EWS / GENERAL)	:				
PHYSICALLY DISABLED (YES / NO)	:				
CURRENT STATUS (Please ✔)		Working	Entrepreneur	Student	Unemployed
QUALIFICATIONS	:				
PHOTO ID NUMBER (Aadhaar/ PAN/ Voter ID/ Passport)	:				
MOBILE NUMBER	:				
ALTERNATE MOBILE NUMBER	:				
EMAIL ADDRESS	:				
TRAINEE'S DOMICILE (RURAL / URBAN)	:				
ADDRESS	:				
FEE PAYMENT DETAILS	:				
DATE: SIGNATURE OF APPLICANT					

Kindly submit completed form on or before 31st May 2026 (3 PM) to skmandal.csmcri@csir.res.in

For any query please contact:

Dr. Subir Kumar Mandal,
Principal Scientist
Applied Phycology and Biotechnology Division
CSIR-CSMCRI G.B. Marg, Bhavnagar-364002 (Gujarat)
Email: skmandal.csmcri@csir.res.in; skmandal@csmcri.res.in
WhatsApp No. +91-9426284820

Bank details of CSIR-CSMCRI for Trainee Program Fee

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Phone No. (0) 0278, 2471792 E-mail: fao@csmcri.org

Electronic Fund Transfer Account Details

S. No.	Description	Details
1	Name of account holder	DIRECTOR, C.S.M.C.R.I.
2	Address	GIJUBHAI BADHEKA MARG, BHAVNAGAR 364002
3	e-mail address	fao@csmcri.res.in
4	Phone No. / Mobile No.	0278-2471792
5	Fax No.	0278-2567562
6	Permanent Account Number (PAN)	AACCC1313P
7	Particulars of Bank Account	
	Name of the Bank	STATE BANK OF INDIA
	Name of the Branch	WAGHAWADI ROAD BRANCH
	Branch Code	10863
	Address	Shubham Shop No. G2/3, Plot No. 2569 E1/2, Waghawadi Road, Opp. Gulista Ground, Bhavnagar-364002 e-mail: sbi.10863@sbi.co.in
	Telephone No	0278-2569884
	Account No.	30267310153
	Type of Account	SAVINGS BANK ACCOUNT
	IFSC Code (RTGS/NEFT)	SBIN0010863
	MICR code	364002023

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Fee Payment Details

- Payment must be made only through digital modes such as RTGS, NEFT, IMPS, Google Pay, or PhonePe.
- Cash transactions will not be accepted.

Amount (INR)	:	
Bank Name	:	
Branch Name	:	
Account No.	:	
Transaction ID and Date	:	

Signature of Depositor/ Candidate
Name: _____

Fee Structure (Non-Refundable):

- **Category I: Self-Sponsored Candidates**
  (Students, Individuals other than students, and Entrepreneurs applying independently)
  Rs. 1,000/- + Rs. 180/- (GST) = Rs. 1,180/-
- **Category II: Sponsored Candidates**
  (Candidates sponsored by Government organizations, Industries, or Entrepreneurs)
  Rs. 5,000/- + Rs. 900/- (GST) = Rs. 5,900/-

Important Notes:

- The training program fee is **non-refundable** and must be paid **only through NEFT or RTGS**.
- The medium of instruction will be in **Hindi / English**.
- **Participants are responsible for arranging their own lodging and boarding.**
- **Certificates** will be awarded to participants upon **successful completion** of the training program.

Application Submission

Candidates are requested to submit the **completed application form** along with **proof of payment** via email to **skmandal.csmcri@csir.res.in** on or before **31st May (upto 3 PM)**.

Important Guidelines:

- Only applications with complete information and payment made through **digital mode** will be considered.
- Selection will be based on the evaluation of the candidate's **Curriculum Vitae (CV)**.
- Selected candidates must bring a **printed copy of the payment receipt** and a **photocopy of their AADHAR card** at the time of joining the training program.
- **Selection results** will be communicated via **email on** _____.