



# CSIR-CCSRI

# Year Report - 2025



**CSIR - Central Salt & Marine Chemicals Research Institute**

Explore, harness, and transform marine resources for the  
good of the people of India

# Mission of CSIR-CSMCRI - R&D Verticals



- Marine Pollution
  - Abatement
  - Processes
  - Microplastics
  - Marine Ecology
  - Monitoring & Impact Assessment

Marine Environment



- Marine Aquaculture
  - Seaweeds
  - Microalgae
  - Halophytes
  - Salt Tolerant Plants
  - Marine Biotechnology
  - Marine Microbes
  - Marine Bio-actives
  - Processing & Products (including food and nutrition)

Marine Biology



- Salt
- Water
- Marine Chemicals
  - Inorganic
  - Organic
  - Natural Products
- Marine Elements

Marine Products & Processes

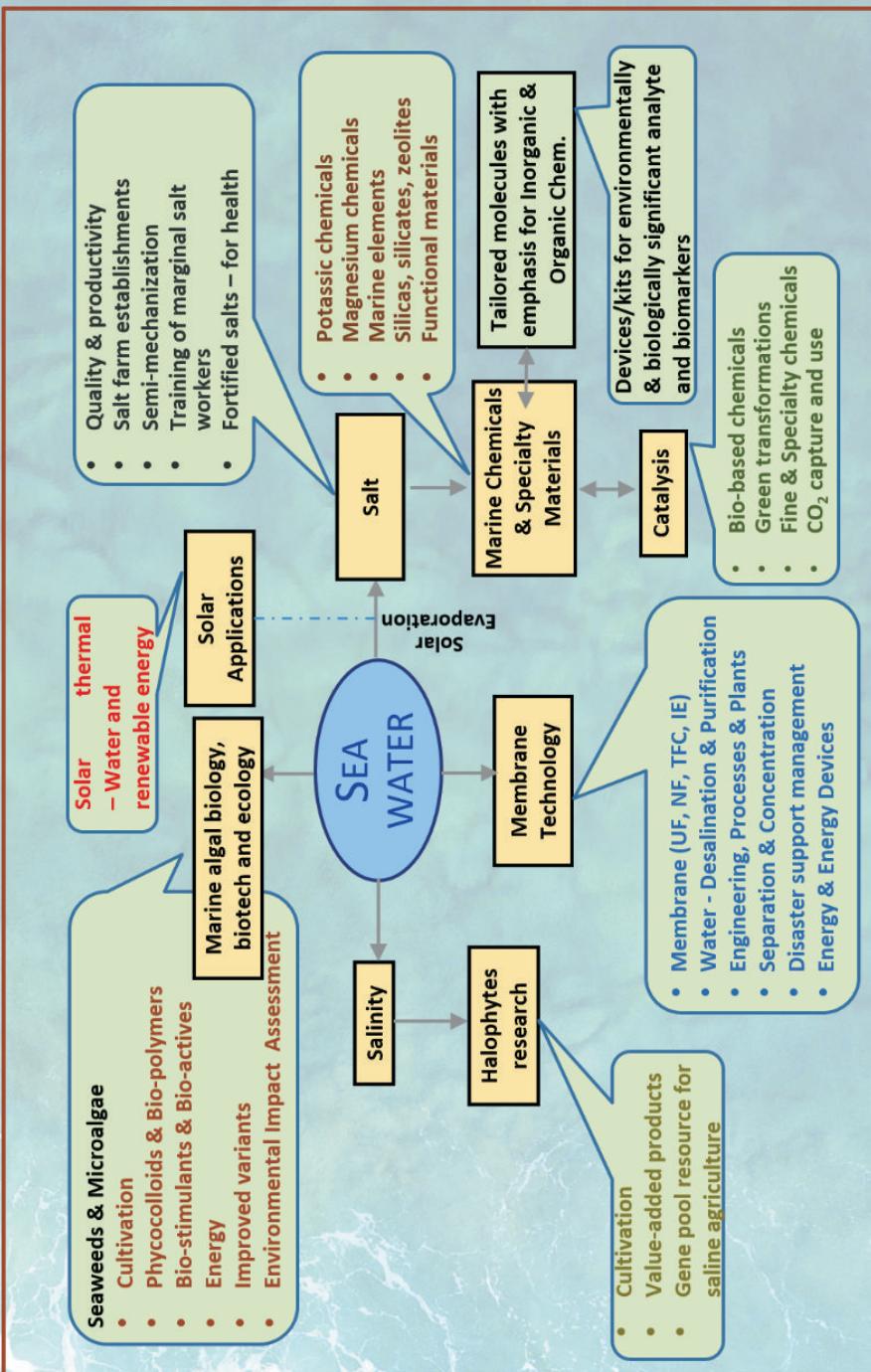
# Technology Portfolio of CSIR-CSMCRI

<h2>Salt &amp; Marine Chemicals</h2>	<ul style="list-style-type: none"><li>• High purity salt</li><li>• Low sodium salt</li><li>• Double fortified salt</li><li>• IP grade salt</li><li>• Potash and magnesia from bittern</li><li>• Hydrotalcite</li><li>• LB and HB <math>MgCO_3</math></li><li>• Dry sea mix</li></ul>	<h2>Inorganic &amp; Organic Chemicals; Polymers &amp; Membranes</h2> <ul style="list-style-type: none"><li>• Zeolite-A</li><li>• <math>CaCO_3</math> (rubber and paper grade)</li><li>• Precipitated silica (diff. grades)</li><li>• Green brominating agent</li><li>• Bromo compounds</li><li>• Bio-diesel (oil-seeds and algae)</li><li>• 2-Phenylethanol; Carveol; <math>\alpha</math>-campholenic aldehyde</li><li>• Membranes/Polymers (TFC RO/HF desalination/ purification)</li><li>• Mobile desalination plant</li><li>• New Gen HF Membrane</li><li>• Interpolymer cation and anion exchange membrane for ED/EDL/energy applications</li><li>• Solvent-resistant membrane</li><li>• Polymeric ion-exchangers</li><li>• Bio-based chemicals (l- valerolactone, polymers, etc.)</li></ul>	<h2>Waste to Wealth (for CPIS)</h2> <ul style="list-style-type: none"><li>• ZLD process for distilleries (with recovery of potash and organics as cattle feed); 100% water soluble FCO grade SOP from distillery ash</li><li>• Separation/Recovery of salts (inorganic) from different chemical processes/ effluents (salt washer, textile, leather, paper &amp; pulp, etc.)</li><li>• Valorization of Kimberlite waste tailings</li><li>• Recovery of precious metals (like Pd, Li) from spent catalysts/e-waste/ effluent streams</li><li>• Recovery of lac from effluent and recovery of aleuritic acid from seedlac</li><li>• Activated carbon from rice husk ash waste</li><li>• Membrane rejuvenation</li></ul>	<h2>Marine Biology</h2> <ul style="list-style-type: none"><li>• Cultivation technology for <i>Kappaphycus</i>, <i>Gracilaria</i>, <i>Gelidiella</i>, <i>Ulva</i>, and <i>Gavria</i> species, and their processing to bio-stimulant/animal/poultry feed and phycocolloids (carrageenan, agar, agarose, and alginate)</li><li>• Liquid Seaweed Plant Bio-stimulant (LSPB) from brown algae – <i>Sargassum</i></li><li>• Microalgae cultivation and processing to crude oil, pharma/ nutraceuticals, polymers and pigments</li><li>• Cultivation of <i>Salicornia</i>, a salt-tolerant plant, processing to value-added products</li><li>• Bio-degradable thin films, capsules from carrageenan</li><li>• Microbial synthesis – PHA</li><li>• Membrane-based tool kits (curd strip, UTI, etc.)</li></ul>
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❖ TRL Level 6 & above  
❖ Industry supported

❖ IP Protected  
❖ Licensed & Commercialized

# Research and Development Areas of CSIR-CSMCRI



# Broad R&D Domains of CSIR-CSMCRI





## Dear well-wishers of CSIR-CSMCRI Bhavnagar,

Greetings of the year 2026 !!

May the new year brings exciting opportunities & lots of happiness to you.

I thank and appreciate your association with us. Your trust, collaboration, and shared commitment have been a constant source of motivation, inspiring us to pursue excellence and to work with renewed determination for the progress and prosperity of our nation.

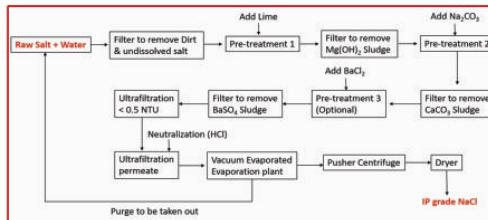
As we reflect upon the year 2025, I take this opportunity to highlight some of the significant milestones and achievements accomplished during this period, which stand as a testament to our collective efforts and shared vision.

## Research Frontier Highlights

At the forefront of scientific innovation, CSIR-CSMCRI is dedicated to serving society and supporting industry.

### Pharma-grade Salt (NaCl) composition and its method of preparation

CSIR-CSMCRI developed a simple & continuous process for the preparation of pharma-grade salt from harvested impure salts for its application in the pharmaceutical and food industries. This process includes a combination of chemical and membrane processes to separate the impurities.



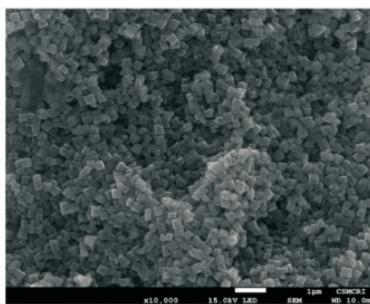
### Integrated System to increase solar salt yield by enhancing evaporation rate of brine

CSIR-CSMCRI developed an integrated system that applies physical, chemical, and thermal processes to increase salt yield from 60 to 85 tons per acre. The technology has been transferred to Gujarat Heavy Chemical Limited and M/s. Tata Chemicals Limited (TCL). The technology has been field validated.



## A zero-discharge hydrometallurgy-based process for the recovery of valuable metals from spent lithium-ion batteries (LIBs)

CSIR-CSMCRI has developed a room-temperature leaching process for NMC-type cathode materials, which shows high leaching efficiency for Li, Co, Ni, and Mn (98%). We have also developed a downstream process that enables the sequential and selective precipitation of all metals through the judicious control of solution pH and the use of specific reagents. This environment-friendly zero-liquid discharge process offers a sustainable pathway for LIB recycling.

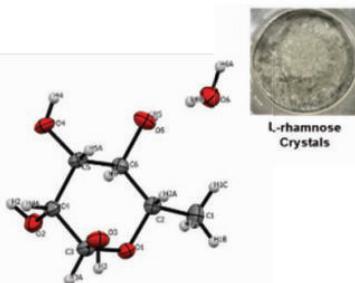


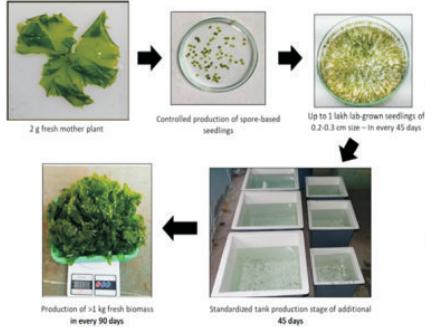
## Synthesis of potassium-zinc hexacyanoferrate-calcium alginate composite for the selective separation of the rubidium ion

CSIR-CSMCR prepared potassium-zinc hexacyanoferrate and its calcium alginate composite material. The adsorption-desorption study revealed that the adsorption efficiency of the adsorbent gradually decreases from cycle 1 (76.85%) to cycle 5 (54.07%). However, a complete recovery of the Rb<sup>+</sup> has been observed for all five cycles with 1 M NH<sub>4</sub>Cl solution.

## Green seaweed (*Ulva* Sp.) based process for rare sugar (L-rhamnose)

L-rhamnose is an FDA-approved naturally occurring rare deoxy sugar with applications in the realm of food, pharma, and cosmetics. The main use in cosmetics is owing to their moisturizing, anti-aging, smoothing, and skin-regenerating properties. CSIR-CSMCRI developed a rapid and selective hydrolysis of sulfated polysaccharides using a low-cost solid catalyst process for the extraction of L-rhamnose.



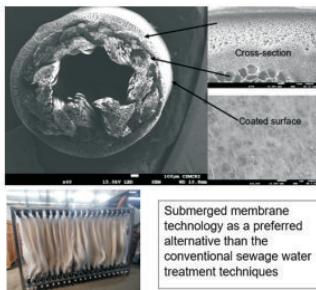
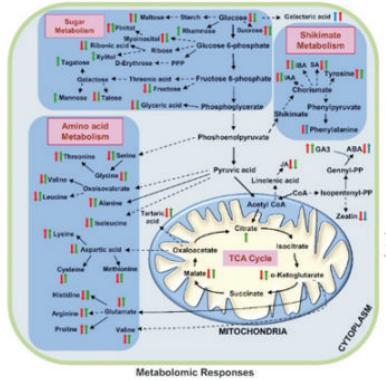


### Process for controlled production of spore-based seedlings from *Ulva* species

*Ulva* cultivation relies on seasonal and vegetative propagation, which leads to inconsistent biomass yields, reduced quality, nil growth due to sudden reproductive events. CSIR-CSMCRI developed a controlled and artificial seedling production process that prevents prematurity in the reproductive stage, ensures uniform quality, and is non-dependent on season.

### Physiological and Metabolic Insights of salinity resilience in peanut genotypes

A study was conducted to evaluate the salinity resilience of two contrasting peanut genotypes (GG7 and TG26) during the early seedling stage, focusing on mineral nutrient acquisition, antioxidative defense, and metabolomic responses to elucidate the mechanisms of salt tolerance. Findings underscore the importance of integrating ion transport, antioxidant defense, and metabolic reprogramming in salinity tolerance.



### Submerged hollow fiber membrane technology for STPs

Antifouling reinforced hollow fiber membrane for sewage water treatment application, jointly developed by CSIR-CSMCRI and M/s Memtrix Technologies LLP, Ahmedabad. This submerged HFM has the advantage of space efficiency and high-quality effluent.



## Industry Interactions

CSIR-CSMCRI has undertaken 33 new projects of various kinds, including Grant-In-Aid, collaborative, sponsored, consultancy, and technical services projects valued at ₹151.5 million. Along with a few start-ups, various industries, including Lloyds Metals & Energy Ltd, Memtrix Technologies LLP, and High Energy Batteries (India) Ltd, as well as organizations such as the Central Power Research Institute and the Deendayal Port Authority, became stakeholders of the institute during this period.

## Technology Transfers



CSIR-CSMCRI successfully transferred seven (08) different technologies, accruing ₹7.80 million, encompassing areas such as the separation of salts from tannery effluents, a greener process for mefrosol preparation, production of saloni, process for the preparation of carveol and alpha-campholenic aldehyde, integrated process to increase salt yield and k-sap processing technology.

## MoUs and Agreements for Collaborations

During this period, we signed 45 MoUs/Agreements with different stakeholders for collaboration. Besides the industries, we have signed agreements with various educational institutions, such as Pangasinan State University, Philippines, PDEU and IIT - Tirupati. We also expanded our collaboration with NGOs, such as Utthan.





## Societal Activities



Under PMMSY scheme initiated by Ministry of Fisheries, Animal Husbandry and Dairying, Government of India, CSMCRI – MARS team distributed 60 tons of seed material and around 210 kgs elite *Kappaphycus* seedling to the identified beneficiaries (~90 nos) as a support system to improve their livelihood in Rameswaram.

**Jigyasa (Science Outreach) & Skill development**  
Following the philosophy of learning by doing, we believe in imparting skills at a very young age. To implement this, over 6,969 school students and 366 teachers from various parts of Gujarat have been sensitized by CSIR-CSMCRI staff under the JIGYASA initiative. Similarly, through our CSIR-Integrated skill development program, approximately 412 individuals have been trained, empowering them to venture into business in areas related to seaweeds, soil testing, biotechnology, microalgae, salt production activities, etc.

As a part of the Swachhata Pakwada initiative, we undertook cleanliness drives across various places in and around Bhavnagar.



CSIR-CSMCR played a key role in relief during the recent devastating floods in Jammu & Kashmir. We provided drinking water to the local affected people using our mobile desalination van.

CSIR-CSMCR was successfully involved in the installation of “Decentralized Multistage Constructed Wetland for Sewage Treatment (Capacity: 20,000 LPD)” for Bhavnagar Municipal Corporation.



CSIR-CSMCR installed a 25 KLD water softener cum desalination plant in Bodananes village in Palitana. The system, developed using in-house membrane technology, was designed to purify, desalinate, and soften the borewell water. Shree Shasansamrat Acharya Bhagvant Shri Vijay Nemisurishvarji Foundation supported this initiative.



## Celebrations & Infrastructure Developed at CSIR-CSMCRI

CSIR-CSMCRI celebrated 72<sup>nd</sup> Foundation Day on 11<sup>th</sup> April 2025. Dr. N. Kalaiselvi, DG, CSIR & Secretary, DSIR, Dr. K. J. Sreeram, Director, CSIR-CLRI, Chennai, and Prof. S. Sivaram, RC Chairman, attended the function. Dr. N. Kalaiselvi, DG, CSIR & Secretary, DSIR, the Chief Guest, gave the Foundation Day address. Guest of Honour Prof. S. Sivaram, RC Chairman, had presented the Foundation Day Lecture on "A novel cellulosic porous biomass: structure, properties and applications".

Dr. N. Kalaiselvi, DG, CSIR & Secretary, DSIR inaugurated the "**Membrane Module Fabrication Facility**" at CSIR-CSMCRI, Bhavnagar.

Dr. N. Kalaiselvi, DG, CSIR & Secretary, DSIR inaugurated the "**Modern Experimental Salt Works**" (CI STARS – Centre for Integrated Salt Technologies and Advanced Research Station) facility by starting main pumping station sea water supply at Kumberwada, Bhavnagar. This facility at a scale of 168 acres will demonstrate new techniques to increase salt production in India, and will be a platform to demonstrate lab-scale technology at field scale. On this occasion, DG CSIR announced distribution of salt to entire CSIR family.





CSIR-CSMCRI celebrated 84<sup>th</sup> CSIR Foundation Day on 08<sup>th</sup> October 2025. Keynote Lecture was delivered by Guest of Honour Prof. S. Ramakrishnan, Indian Institute of Science, Bengaluru on **“Plastics - A Boon turning a Bane?”** and CSIR Foundation Day Lecture was delivered by Chief Guest Prof. L. S. Shashidhara, Director, National Centre for Biological Sciences, Bengaluru on **“Post Independent Indian Science: less known stories, unimaginable impact”**.

CSIR-CSMCRI successfully organized the IISF Prelude-2025 under the national theme “Vigyan Se Samruddhi: for Aatmanirbhar Bharat” on 27<sup>th</sup> November 2025. Keynote lectures were delivered by Prof. V. K. Jain on **“Chemical Security”** and Prof. Bineesha Payattati on **“Waste to Wealth”**, respectively. Similarly, CSIR-CSMCRI celebrated other important occasions such as Women's Day, Independence Day, Republic Day, and observed vigilance, Rajabhasha and safety days.





## Seminars/Conferences/Workshops/Trainings Organized

CSIR-CSMRI organized “**Hands-on Workshop on Electron Microscopy**” as a pre-congress workshop on the occasion of International Analytical Science Congress, 2025 (IASC 2025) during March 03-04, 2025..

CSIR-CSMCRI as a co-organizer along with MSU, Baroda and SICART organized “**International Analytical Science Congress 2025 - Metamorphosis of Analytical Sciences: Integrating Interdisciplinary Synergies & AI for a Sustainable Future (MAS: ISAS)**” during March 06-08, 2025.

CSIR-CSMRI in along with Adani Power Limited, Mundra organized One day workshop on “**Thermal Power Plant Gas Co2 Capture & Conversion to Value adds**” on 22.04.2025.

CSIR-CSMCRI organized a Bilateral India-Philippines International Seminar on **Advanced Salt, Water, and Marine Technologies** in association with Pangasinan State University (PSU), Philippines, and the Department of Science and Technology, Philippines, on 10<sup>th</sup> June 2025 at CSIR-CSMCRI.

Representatives from Pangasinan State University presented the local & international initiatives, as well as the research & innovation initiatives of PSU. Delegates from the Department of Science and Technology (DOST) Philippines highlighted the overview of the Salt Program of the DOST.





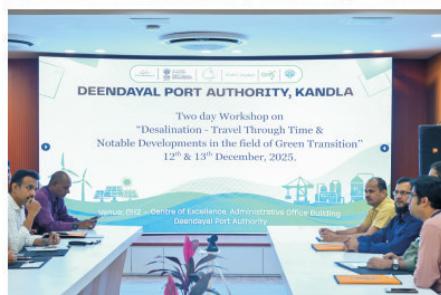
CSIR-HRDC and National Skill Development Corporation, New Delhi organized training programme at CSIR-CSMCR on “**ISO/IEC 17025:2017& Internal Audit**” (General requirements for the Competence of Testing and Calibration Laboratory) during September 01-04, 2025.



CSIR-CSMCR organized a virtual session ‘**Marine Resources for Sustainable Development**’ under the auspices of CSIR for Connect, Collaborate, Converge and Convert (5C) for Global Sustainable Development at Science Summit 2025 UNGA80, 16<sup>th</sup> September 2025.



Workshop on **Gender Sensitization and the POSH Act** (Prevention of Sexual Harassment at Workplace) on 17<sup>th</sup> October 2025. Shri Mahendra Makwana, Gender Resource Officer (GRO) at the Gender Resource Centre, Gandhinagar delivered lecture.



Deendayal Port Authority, Kandla, in collaboration with CSIR-CSMCR, organized a two-day workshop on “**Desalination - Travel through time & potable developments in the field of Green transition**” during December 12-13, 2025.



## Events and Footfalls at CSIR-CSMCRI

Dr. Neelam Patel, Senior Adviser (Agriculture & Allied Sectors), NITI Aayog, visited MARS Mandapam, CSIR-CSMCRI, on 01<sup>st</sup> January, 2025, to review the seedling production and seaweed cultivation activities.

Delegates from various industries and members of Gujarat Chemical Association, under the leadership of Dr Jaimin Vasa, President –GCA, visited CSIR-CSMCRI on 25<sup>th</sup> March 2025 to explore opportunities for collaboration and signed an MoU.

Dr. Kirti M. Yenkie, Associate Professor, Department of Chemical Engineering, Rowan University, Glassboro, New Jersey delivered a scientific lecture on “**Process Systems Engineering for Sustainable Design: Integrating Engineering, Mathematical Modeling, Machine Learning and Life Cycle Assessment**” on 06<sup>th</sup> January 2025.

Dr. Sukumar Devotta, Ex Director, CSIR-NEERI, delivered a scientific lecture on “**Carbon Capture, Utilization and Storage (CCUS) and Green Hydrogen for Net Zero - Opportunities & Challenges**” on 16<sup>th</sup> January 2025.

Prof. Yuki Nagao, Japan Advanced Institute of Science and Technology (JAIST), Ishikawa, Japan, visited CSIR-CSMCRI and delivered a lecture on “**ionomer interfaces with enhanced hydration and ion conductivity beyond bulk membranes**” on 30<sup>th</sup> January 2025.





A Town Hall meeting with RC members and CSIR-CSMCRI staff was organized on 10<sup>th</sup> March 2025. Dr. S. Sivaram, Chairman, Research Council at CSIR-CSMCRI, delivered a lecture on **“Start-ups: The Why and How,”** on 11<sup>th</sup> March 2025.

Prof. Anil Kumar of IIT-Mumbai visited CSIR-CSMCRI and delivered a scientific lecture on **“Rapidly changing face of organic chemistry and chemical manufacturing: A new paradigm via continuous process intensification”** on 14<sup>th</sup> May 2025.

Prof. S. Natarajan (FASc, FNAsc, FNA, FRSC) of Indian Institute of Science, Bangalore delivered a scientific lecture on **“MOFs as heterogeneous catalysts”** on 15<sup>th</sup> May 2025.

Dr. A. Ramesh Kumar, CSIR-NEERI delivered a scientific lecture on **“Stockholm convention on persistent organic pollutants”** on 20<sup>th</sup> May 2025.

Cmde. Amit Rastogi, CMD, NRDC, and Shri N. G. Lakshminarayan, DGM-BD, NRDC, visited CSIR-CSMCRI institute on 01<sup>st</sup> July 2025 and interacted with the scientists regarding opportunities for collaboration and technology transfer.

Prof. Pandiyarasan Veluswamy, Faculty in Electronics & Communication Engineering, IITDM, Kancheepuram, delivered a lecture on **“Design and Fabrication of materials for non-invasive health care applications”** on 29<sup>th</sup> July 2025.

Shri K. C. Devesenapathi, IAS, Secretary, Coastal Aquaculture Authority, Department of Fisheries, Government of India, visited MARS Mandapam on August 25, 2025.



Dr Rajesh Biniwale, Senior Principal Scientist, CSIR-NEERI and Founder Director, Ecologique Science Technik (India) Pvt. Ltd delivered a talk on **“Entrepreneurship opportunities for scientists in CSIR”** on 15<sup>th</sup> September 2025.

Dr. D Srinivasa Reddy, Director CSIR-IICT, delivered a scientific talk on **“Efforts on drug discovery through natural products and process development of APIs/KSMs through sustainable approaches”** on 17<sup>th</sup> September 2025.

Prof. S. Ramakrishnan of Indian Institute of Science, Bangalore delivered lecture entitled **“Hyperbranched Polymers - Growing richer in flavour with time”** on 09<sup>th</sup> October 2025.

Dr. Sanhita Chaudhury, Scientific Officer-F, Bhabha Atomic Research Centre (BARC), delivered a lecture entitled **“Transport selectivity between cations in electromembrane process – from fundamental understanding to novel materials”** on 15<sup>th</sup> October 2025.

Dr Geetha Vani Rayasam, Director, CSIR-NIScPR, delivered an invited lecture on the topic **“Role of science policy and science communication in science Technology and innovation”** on 21<sup>st</sup> November 2025.

Prof. Anant V. Patel, Faculty of Engineering and Mathematics, Bielefeld University of Applied Sciences and Arts, Bielefeld, Germany delivered an invited lecture on **“Multiscale formulation research for bio-based ingredients”** on 15<sup>th</sup> December 2025.

Prof. Suvarn S. Kulkarni, from IIT-Bombay, delivered an invited lecture on the topic **“Are there sugars in bacteria? What can we do with them?”** on 23.12.2025.





## Outreach Activities

CSIR-CSMCRI participated and demonstrated the research acumen of the institute at the **Vibrant Bhavnagar Vision 2030** from January 01-06, 2025. Mrs. Nimuben Bambhaniya, Hon'ble Minister of State for Consumer Affairs, Food and Public Distribution, visited the CSIR-CSMCRI stall and appreciated the research work carried out in the institute.



CSIR-CSMCRI participated in "**SAMRIDH Gujarat 2025**" at Ahmedabad during July 03-05, 2025. Mr. Dineshbhai Makwana, Hon'ble Member of Parliament - Lok Sabha, visited the CSIR-CSMCRI stall on 3<sup>rd</sup> July and appreciated the institute's work. We also won the "**Best Stall Award**" of the event for our outstanding presentation and Engaging Participation.

CSIR-CSMCRI participated and showcased "**Mobile Salt Quality Control & Iodination Van**" at Fun Street-2025; a public event organized by BMC, Wonderland steam Kindergarten on 01<sup>st</sup> January, 2025.





CSIR-CSMCRI participated in the “**8<sup>th</sup> International Green Chemistry World – Convention & Ecosystem**” held at The Westin Mumbai Garden City during 6<sup>th</sup> – 8<sup>th</sup> October 2025. The event was organized by Green Chemistree Foundation and co-organized by the Ministry of Chemicals & Fertilizers, Department of Chemicals & Petrochemicals.

CSIR-CSMCRI participated and displayed the institute's research capabilities in the **Chemicals, Petrochemicals, and Process Plant Machinery Expo** at Mahatma Mandir, Gandhinagar, Gujarat, from 12<sup>th</sup> to 14<sup>th</sup> November 2025.

CSIR-CSMCRI participated and showcased the institute's research activities in the **India International Science Festival 2025**, Chandigarh from December 09-12, 2025.

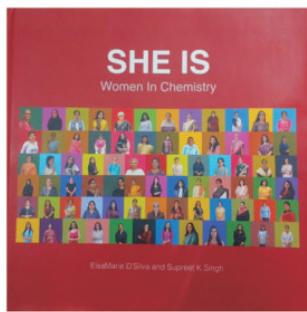
CSIR-CSMCRI participated in and showcased the institute's capabilities at “**Ujjwal Rajasthan 2.0**” in Udaipur from September 11 to 13, 2025.

As a part of CSIR Foundation Day celebrations, CSIR-CSMCRI, along with its technology partner Aquaagri Processing Private Limited, showcased the Seaweed Biostimulant product in the **CSIR-Super Store** at Dilli Haat during September 24-26, 2025.





## Academic Excellence and Honors



- CSIR-CSMCRI provides Ph.D. in Sciences and Engineering under the Academy of Scientific and Innovation Research (AcSIR). In 2025, 35 scholars enrolled for the Ph.D. CSIR-CSMCRI also provides an internship program for master's and undergraduate students. In 2025, 191 students from various universities completed their internships at the institute.
- The year 2025 was promising, with 221 research publications and an average impact factor of 5.67. We also filed 24 patents (Indian: 22; Foreign: 2) and were granted 9 patents (Indian: 5; Foreign: 4).
- A Stanford University study indicated 16 of our scientists are among the Top 2% Most Influential Scientists of 2025 in different domains.
- Dr. (Mrs.) Moutusi Manna, Principal Scientist, featured as one of the Women Achievers in a book entitled **"SHE IS: Women in Chemistry"**.
- Dr Arvind Kumar, Chief Scientist, has been conferred the Haryana Vigyan Ratna Award 2022 in recognition of his exceptional contributions to scientific research and innovation.
- Dr Vaibhav A. Mantri, Senior Principal Scientist, has been awarded with "वसुधरा मित्र निसरक्षक पुरस्कार 2024" in recognition of his sustained contributions in the field of seaweed biodiversity, conservation and awareness by Athalye Sapre Pitre Educational Institution, Devrukh, Ratnagiri.
- Dr Parul Sahu, Senior Scientist, received the **First Prize in Oral Presentation** at the Indo-US Conference on Climate Change and Occupational and Environmental Health (CliCON OEH 2025), organised by the ICMR – National Institute of Occupational Health, Ahmedabad, from February 26 to 28, 2025.
- Dr. Sanak Ray, Senior Scientist, bagged the **Best presentation** award in the International Conference on "Ocean of Opportunity: Marine Bioresources for a Better Tomorrow."



During this calendar year, many of our students have bagged many awards and recognitions.



- Dr Digvijay Singh Yadav, Senior Project Associate, received the “**Best Oral Presentation Award**” in the ‘International Conference on Blue Economy – 2025’, held during January 20 – 22, 2025, at the Department of Oceanography and Coastal Area Studies, School of Marine Sciences, Alagappa University, Karaikudai.
- Miss. Gwen Grace, Project associate-2 (First Place) and Miss. Dhanya, Project associate-2 (Second place) received “**Best Poster Presentations award**” in the “**6<sup>th</sup> India International Seaweed Expo-Summit 2025**”, Chennai.
- The Ocean Society of India has conferred the prestigious **Dr. (Mrs.) N.I. Joseph & Prof. K.V. Jayachandran National Award in Biological Oceanography** to Dr Kanchan Sambwani for the period 2022 – 2023 on the occasion of OSICON-25.
- Mr. Prabhakaran, PhD Scholar, bagged the **RSC Best Poster Prize** in the **34<sup>th</sup> CRSI – National Symposium in Chemistry & CRSI – RSC lectures** held in IISER, Bhopal, during February 06-08, 2025.
- Mr. Sachin Kumar Patel, PhD Scholar, received the **Young Scientist Award for the Best Poster Presentation** at the **3<sup>rd</sup> International Conference on Energy, Functional Material/Molecules and Nanotechnology (ICEFN-2025)** held at Kumaun University, Nainital, Uttarakhand, March 20-22, 2025.
- Ms. Nehal H. Rathod, PhD Scholar, received the **Prof. Baldev Raj Memorial Award** for the best performance in the Ph.D. programme under the AcSIR-RMIT University.
- Ms. Kirti Singhal, PhD Scholar, won the **Best Poster Presentation Award** at the **3<sup>rd</sup> International Symposium on Advances in Algal Research 2025**, hosted by IIT Guwahati, CSIR-NEERI & Rajagiri College.



## Staff Club & Family Interactions



The CSIR-CSMCRI Staff Club has consistently provided a diverse range of activities to engage and to enhance community spirit, promote wellness, foster creativity, and celebrate cultural traditions among members throughout 2025. The Club's activities catered to the staff, their families, and children, offering something for everyone from sports and cultural events.

A box cricket facility has been established for the benefit of students and staff of CSIR-CSMCRI reinforcing its dedication towards promoting health and wellness.

CSIR-CSMCRI celebrated National Sports Day to commemorate the birth anniversary of Major Dhyan Chand on 29<sup>th</sup> August 2025. The Staff Club curated a vibrant and energetic sports program that brought together staff members in a spirit of healthy competition and camaraderie.

The CSIR-CSMCRI staff club extends special mention to Mrs. Sarala Solanki, a table tennis player from CSIR-CSMCRI, who was selected to compete in the SSBMT finals to be held at CSIR-NIEST, Jorhat.

In addition to cultural and sports-related activities, the Staff Club organized a financial awareness program in collaboration with the State Bank of India, Waghavadi Road Branch. The program aimed to educate staff members on recent updates and financial schemes related to health insurance benefits and other banking services.



## Other Important Activities/ Achievements



We have published a book on **“Seaweed Research at CSMCRI: 2020 and Beyond”** highlighting the decadal research activities of CSIR-CSMCRI.

CSIR-CSMCRI published the **“Technology Compendium”**, detailing all the new technologies developed in the institute in the English Language. We have published a book co-authored by Dr. D D Ozha and Dr. Chunawala titled **“कचरे से कंचन (Waste to Wealth)”**.

CSIR-CSMCRI established a 50 KLD capacity Decentralized multistage constructed wetland for sewage treatment and use at Ramkrishna Math, Ahmedabad.

CSIR-CSMCRI also published many popular articles highlighting the various research activities of the institute in various science magazines such as Chemical Weekly, Chemical Industry Digest, and Vigyan Pragathi.

We wish to continue our efforts in the service of society through our science & technology.

May the future bring us great promise, excitement and fulfillment!

Kannan Srinivasan  
Director, CSIR-CSMCRI

## નોટ / NOTES

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# Thank You Stakeholders...



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