

SATHYABAMA INSTITUTE OF  
SCIENCE AND TECHNOLOGY



# SDG 14

# LIFE BELOW WATER





# SDG 14 - LIFE BELOW WATER



## Sathyabama Institute of Science and Technology: To Keep Oceans Clean, Safe and Alive for Generations to Thrive

Sathyabama aligns its mission with SDG 14 by embedding marine-conservation and sustainable ocean use into its curriculum, research, and community outreach. It has several dedicated research entities tackling marine and ocean science: Centre for Ocean Research (COR), Centre for Climate Change Studies, Centre for Remote Sensing and Geoinformatics, and Centre for Earth and Atmospheric Sciences — enabling multidisciplinary research that includes marine ecology, oceanography, and conservation. The COR was established in collaboration with National Institute of Ocean Technology (NIOT), Chennai — indicating a serious institutional investment in ocean science.

Sathyabama stands out as a good example among Indian universities of how to embed SDG 14 into core institutional mission — combining education, research, community engagement, and sustainable campus operations. Its marine-research centres, coastal-community outreach (seaweed farming, sustainable fishing), pollution control policies, and capacity building reflect a holistic approach to “life below water.”

Sathyabama's Overall Mission in alignment with SDG 14 Life Below Water is integrated into curriculum, research priorities, and community development initiatives. The institution promotes marine conservation, sustainable ocean practices, and scientific innovation through academic programmes, dedicated research centres, and extensive outreach activities. By integrating ocean literacy, advanced marine research, and community-based coastal protection efforts, Sathyabama works to ensure the long-term health of marine ecosystems and contributes to global sustainability goals. The institution aims to create a better world by providing solutions to global challenges through research and innovation.

### Centre for Ocean Research (COR)

Centre for Ocean Research (COR) at Sathyabama Institute of Science and Technology is a premier entity in ocean sciences and marine biotechnology, tackling global challenges in sustainable marine Sathyabama's Overall Mission in alignment with SDG 14 Life Below Water is integrated into curriculum, research priorities, and community development initiatives. The institution promotes marine conservation, sustainable ocean practices, and scientific innovation through academic programmes, dedicated research centres, and extensive outreach activities.





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By integrating ocean literacy, advanced marine research, and community-based coastal protection efforts, Sathyabama works to ensure the long-term health of marine ecosystems and contributes to global sustainability goals. The institution aims to create a better world by providing solutions to global challenges through research and innovation management. With cutting-edge infrastructure, a team of expert researchers, and a strong multidisciplinary approach, COR drives innovation in ecosystem management, biodiversity conservation, and marine technology. Backed by national and international funding partners, COR plays a crucial role in advancing scientific research and promoting societal progress.

<https://research.sathyabama.ac.in/home/CentreforOceanResearch>

## Centre for Remote Sensing and Geoinformatics (CRSG)

CRSG focuses on the application of remote sensing and geoinformatics to resolve environmental, urban, and agricultural challenges. It combines satellite data, geographic information systems, and spatial analysis techniques to support decision-making and sustainable development. CRSg typically engages in projects related to land use planning, environmental monitoring, disaster management, and resource management providing critical insights for both Government Organisations and Private Sector stakeholders.

Centre for Remote Sensing and Geoinformatics was established in 2004 at the Sathyabama Institute of Science and Technology in collaboration with the Indian Space Research Organisation (ISRO) to advance research in frontier areas of Science and Technology. It was inaugurated by Dr. Kasturirangan, Former ISRO Chairman and Secretary of the Department of Space, Government of India. The centre undertakes research and consultancy projects funded by National funding agencies such as DST, MoEF, MoES, CSIR, ICMR, and ISRO, along with organisations like NIWE, BHAVINI, and NRSC. As a nodal Centre of IIRS and ISRS, the centre regularly conducts Geospatial Training Programs aimed at educating the next generation of scientists, researchers, and professionals in the field of Remote Sensing and Geographic Information Systems (GIS). The Centre boasts a team of scientists specializing in diverse fields such as Agriculture, Coastal Studies, Environment and Forest, Water Resources, Urban Development, Climate Studies, and Aerial Photogrammetry.

<https://research.sathyabama.ac.in/home/CentreforRemoteSensingandGeoinformatics>



## National Facility for Coastal and Marine Research (NFCMR)

In line with Centre for Ocean Research's commitment to excellence, it is recognized by the Ministry of Earth Sciences and established the Earth Sciences and Technology Cell (ESTC) for Marine Biotechnological Studies in collaboration with the National Institute of Ocean Technology (NIOT) and the Centre for Marine Living Resources & Ecology (CMLRE). Expanding upon this initiative, Sathyabama has now established an integrated and interdisciplinary facility National Facility for Coastal and Marine Research (NFCMR), which is aimed at benefiting students, researchers, industries, and society at large, with legal and technical support from Ministry of Earth Sciences (MoES) with a National Tag.



## Sathyabama Ocean Research Field Station – Jeppiaar Fishing Harbour, Muttom

The Sathyabama Ocean Research Field Station is located at the Jeppiaar Fishing Harbour in Muttom—a private harbour established by our Founder Chancellor, Colonel Dr. Jeppiaar, in his birthplace, a coastal village in the Kanyakumari District. The harbour was created to provide employment opportunities for the local community in this southernmost region of India. The field station extends Sathyabama Institute of Science and Technology's ocean research activities to coastal areas. Functioning under the Centre for Ocean Research, it supports marine research, technology transfer, and hands-on training workshops, enabling practical marine research and community-focused development in the region.



## Sathyabama Ocean Research Field Facility (On-Campus)

Sathyabama has an on-campus Ocean Research Field Facility that provides dedicated space for hands-on oceanographic research, training, and marine studies. It supports activities related to marine science, including the development and maintenance of aquaculture systems, enabling students and researchers to gain practical experience within the university campus.



## Sathyabama Marine Research Station (SMRS)

Sathyabama Institute of Science and Technology has established a Marine Research Station at Rameswaram to advance coastal and marine studies. The facility is equipped with SCUBA diving kits, microscopes, underwater cameras, plankton nets, a PAM fluorometer, and other essential tools for field-based marine research.



The station enables researchers to carry out cutting-edge studies in marine ecology and climate change, supporting efforts to sustainably manage and conserve natural ecosystems in the Gulf of Mannar and Palk Bay regions. Additionally, one of our faculty members is a certified open-water SCUBA diver, enhancing the station's capacity for underwater research and exploration.



## Sathyabama works collaboratively with government agencies and industry partners

Sathyabama works directly with government agencies and industries through research to maintain and extend existing ecosystems and their biodiversity of plants, animals and marine species especially ecosystems under threat.

Sathyabama has signed Memorandums of Understanding (MoUs) with government agencies like Bay of Bengal Programme Inter-Governmental Organisation (BOBP\_IGO), Ministry of Earth Sciences (MoES) Indian National Centre for Ocean Information Services (INCOIS), ICAR - Central Marine Fisheries Research Institute (CMFRI) for collaborative research work to increase awareness and knowledge of the needs, benefits and practices of marine fisheries management, enhancement skills through training and education, transfer of appropriate technologies and techniques for development of the small-scale fisheries to establish regional information networking and promote women's participation in marine fisheries value chain.



The institution has also established its relationship with industries such as Seabytes, PrimeGen, Nanovea, Lupex, Labmate, Kanishka, Harris and Menum, Carl Zeiss, Toshvin and Vetbiotic to collaboratively excel in the areas of research and development, training and other agreed activities.

<https://research.sathyabama.ac.in/research/CentreforOceanResearch>



Sathyabama has also signed MoU with Mangrove Foundation India to take necessary steps to prevent and create awareness on the restoration of mangrove forests. Our university collaborates with NGO communities to create awareness about climate adaptation among the people in the locality. Our institution has participated in tree plantation drive and planted thousands of trees. The Centre of Ocean Research (COR) at Sathyabama University signed a Memorandum of Understanding (MoU) with the Mangrove Foundation of India to support community-driven mangrove restoration initiatives. Through the Community-Based Ecological Mangrove Restoration (CBEMR) approach, the collaboration aims to empower local communities to restore and sustainably manage mangrove ecosystems, thereby strengthening their livelihoods and enhancing their capacity to face and adapt to climate change.

## Sathyabama's Policies Supporting SDG 14: Life Below Water

Sathyabama Institute of Science and Technology has implemented several policies and practices that directly contribute to the conservation and sustainable use of oceans, seas, and marine resources. These institutional policies reflect a strong commitment to protecting coastal and marine ecosystems.





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## Food Policy

Sathyabama has policy to ensure that food on campus that comes from aquatic ecosystems is sustainably harvested. Sathyabama's Food Policy Framework is designed to advance the sustainability of both aquatic and agricultural food systems. The framework promotes responsible production, equitable resource use, and ecosystem stewardship, as outlined in Clause 2 of the Food Protocols Followed in Sathyabama Campus (p. 5). It further supports research and innovation aimed at strengthening sustainable food systems and enabling society to operate within the ecological limits of the natural world.

<https://sist.sathyabama.ac.in/download/FoodPolicy.pdf>

## Sathyabama's responsible practice to efficient water sensitive waste disposal

Sathyabama has established a range of well-designed and effectively implemented practices and policies aimed at preventing potential harm to humans, animals, and the environment. Some of the key policies include adherence to water quality standards and discharge guidelines, the adoption of environment-friendly practices, and measures aimed at reducing marine pollution.

## Water Quality Policy

The institution ensures continuous monitoring of water quality, preventing contamination of aquatic ecosystems and safeguarding water-dependent biodiversity. Through its functional Sewage Treatment Plant (STP), treated water is safely reused for gardening and landscaping, significantly reducing the discharge of polluted water into the environment.

Rainwater harvesting systems, flow-regulated taps, aerators, and water conservation structures—such as ponds, percolation pits, and storage tanks—collectively contribute to minimizing freshwater extraction and preventing marine and freshwater pollution. Sathyabama further advances SDG 14 by supporting research in water quality, recycling, reuse, desalination, prevention of salinity ingress, groundwater recharge, and sustainable water management practices. The institution also organizes awareness and outreach programs to foster responsible water use and protection of aquatic ecosystems in surrounding communities.

[https://sist.sathyabama.ac.in/download/Water\\_Quality.pdf](https://sist.sathyabama.ac.in/download/Water_Quality.pdf)



## Sathyabama's Action plan to reducing plastic waste

Sathyabama has adopted best environment friendly practices that contributes to implementing robust systems to prevent land-based pollution from entering aquatic and marine ecosystems. The institution's comprehensive action plan to reduce solid, liquid, plastic, food, biomedical, and e-waste on campus thereby to ensure that harmful waste is segregated, treated, and disposed of responsibly, thereby reducing the risk of contaminants reaching water bodies. Also through Community Outreach activities the institution extends plastic awareness campaigns to nearby communities and schools, organizes beach clean-up, lake clean-up, and neighbourhood waste management drives and collaborate with NGOs, recycling companies, and government bodies for large-scale impact. Plastic pollution—a major global marine threat—is addressed through source segregation, recycling of plastic covers into granules, and repurposing PET bottles for sustainable building research, thereby reducing plastic waste that might otherwise reach landfills and water systems.

<https://sist.sathyabama.ac.in/download/EnvironmentFriendly.pdf>

## Sathyabama's policy to prevent Marine Pollution

Sathyabama advances SDG 14 by implementing strong waste management and pollution-prevention systems that directly reduce the risk of contaminants entering aquatic and marine environments. The institution carries out a comprehensive waste audit to ensure proper segregation and handling of solid, liquid, biomedical, plastic, ritual, and e-waste, thereby preventing harmful materials from reaching water bodies.

Through liquid waste management, Sathyabama operates a 1.5 MLD Sewage Treatment Plant (STP) that treats all campus wastewater, with the treated water reused for gardening and toilet flushing. This minimizes the release of untreated effluents into the environment, significantly contributing to the reduction of water pollution. Storm water is Environment Friendly efficiently managed through rainwater harvesting pits and roof-top harvesting structures, reducing runoff contamination. The institution also converts waste cooking oil into biodiesel, preventing improper disposal that could pollute waterways.

<https://sist.sathyabama.ac.in/download/MarinePollution.pdf>





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## Sathyabama's policy to monitor aquatic ecosystem

Sathyabama university has a plan to minimize physical, chemical and biological alterations of related aquatic ecosystems. The various measures of the plan are detailed in the Monitoring Aquatic System policy of Sathyabama. The institution implements a policy to prevent marine pollution. It uses strong waste-management and pollution-prevention systems to reduce the risk of contaminants entering aquatic and marine environments.

[https://sist.sathyabama.ac.in/download/MONITORING\\_AQUATIC\\_ECOSYSTEM.pdf](https://sist.sathyabama.ac.in/download/MONITORING_AQUATIC_ECOSYSTEM.pdf)

## Faculty Involvement in Marine Ecosystem Protection and Restoration (SDG 14)

Sathyabama's faculty actively contribute to the protection and restoration of ecosystems through research, community engagement, and conservation-focused initiatives.

## Scientific session (SS054P) at the ASLO Aquatic Sciences Meeting 2023

Sathyabama develops and supports programs, incentives that encourage it to maintain good aquatic stewardship practices. One of our scientists from Centre for Climate Change Studies (CCCS) has contributed as one of co-organizers for scientific session (SS054P) at the ASLO Aquatic Sciences Meeting 2023, Trait Development and Resilience of Aquatic Microbial Communities Under Anthropogenic Stressors in Coastal Ecosystems: A Focus on Coastal Oceans of Global South. It focused on how microbial communities in the coastal oceans of the Global South adapt to human-caused stressors. This research explores the development of microbial traits that enable resilience, with an emphasis on how these communities cope with changes like pollution and climate change.

<https://aslo.secure-platform.com/2023/solicitations/12/sessiongallery/1101>



Times are displayed in (UTC+01:00) Brussels, Copenhagen, Madrid, Paris Change

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Coastal oceans are key to maintaining of global scale ecosystem processes including biogeochemical cycling and contribute to blue economy. In Global South, coastal oceans are crucial for offering direct livelihood to millions of coastal communities and contributing to pan regional GDPs. Resident aquatic microbial communities are crucial in maintaining health and functioning of coastal oceans. Multiple combinations of interactions and associations between microbes, known as microbial network, aid in the transfer of energy through the marine food web. The importance of development of traits and resulting microbial guilds can vary in coastal oceans across continents including in Asia and Africa. In particular, increasing anthropogenic stressors in a changing climate have led to 'urbanization' of coastal oceans. Coastal oceans are also becoming 'hotspots' of antibiotic-resistant genes (ARGs) and can become significant from the viewpoint of public health in parts of Asia and Africa. The aquatic microbial communities are exhibiting signatures of resilience including plasticity in coastal ocean as a result of metabolic interactions with different types of anthropogenic pollutants. There is an urgent need to understand trait development and resilience of aquatic microbial communities in coastal oceans of South to truly achieve nexus towards understanding of health of global oceans. In this session, contributions are welcome from that focuses on coastal ocean microbiome, functional traits in aquatic microbial communities, resilience of microbial communities and linking with broader ecological processes encompassing Global South. In particular, contributions are most welcome from early career researchers who are using multifaceted approaches ranging from ecophysiology, deep- sequencing to ecological modelling towards understanding of aquatic microbial communities in coastal oceans. Submissions are also welcome from authors who are working on aquatic microbial communities of coastal biotopes including mangroves, lagoons, estuaries, coral reefs, seagrass habitat and salt marsh.

**Lead Organizer:** Anweshha Ghosh, Indian Institute of Science Education and Research Kolkata, India (anweshag91@gmail.com)

**Co-organizers:**  
Punyasloke Bhadury, Centre for Excellence in Blue Economy, Indian Institute of Science Education and Research Kolkata, India (pbhadury@gmail.com)

Krishna Ray, West Bengal State University, India (krishna@wbsu.ac.in)

Amit Kumar, Sathyabama Institute of Science and Technology, India (amitkumar.cccs@sathyabama.ac.in)

**SS054P Trait Development and Resilience of Aquatic Microbial Communities Under Anthropogenic Stressors in Coastal Ecosystems: A Focus on Coastal Oceans of Global South**


**Time:** 6:30 PM  
**Date:** 8/6/2023  
**Room:** Mezzanine





one of our scientists worked closely with coastal communities to promote participatory approaches for conservation and livelihood development, particularly in vulnerable coastal areas of Tamil Nadu and the Andaman & Nicobar Islands. His leadership in fostering science-policy-industry-community linkages has led to impactful outcomes in areas such as mangrove protection, marine bioresource utilization, and restoration planning. A recipient of national-level recognitions for his contribution to education, guidance, and institutional development, he has also served on multiple scientific and advisory committees. He actively mentors students and young researchers and is committed to building local capacities for marine ecosystem sustainability. With his deep knowledge of coastal ecology, community engagement, and environmental governance, he brings valuable expertise and insight to the Advisory Committee of the Mangrove Foundation of India, supporting its mission to protect, conserve, and restore India's vital mangrove ecosystems.

He is Co-Chair, Ecosystem-based Aquaculture & Fisheries Group (E-bAG)  
IUCN - Commission on Ecosystem Management (CEM)

<https://iucn.org/our-union/commissions/group/iucn-cem-ecosystem-based-aquaculture-task-force>




Our Vision Our Work Our Union Resources Get Involved

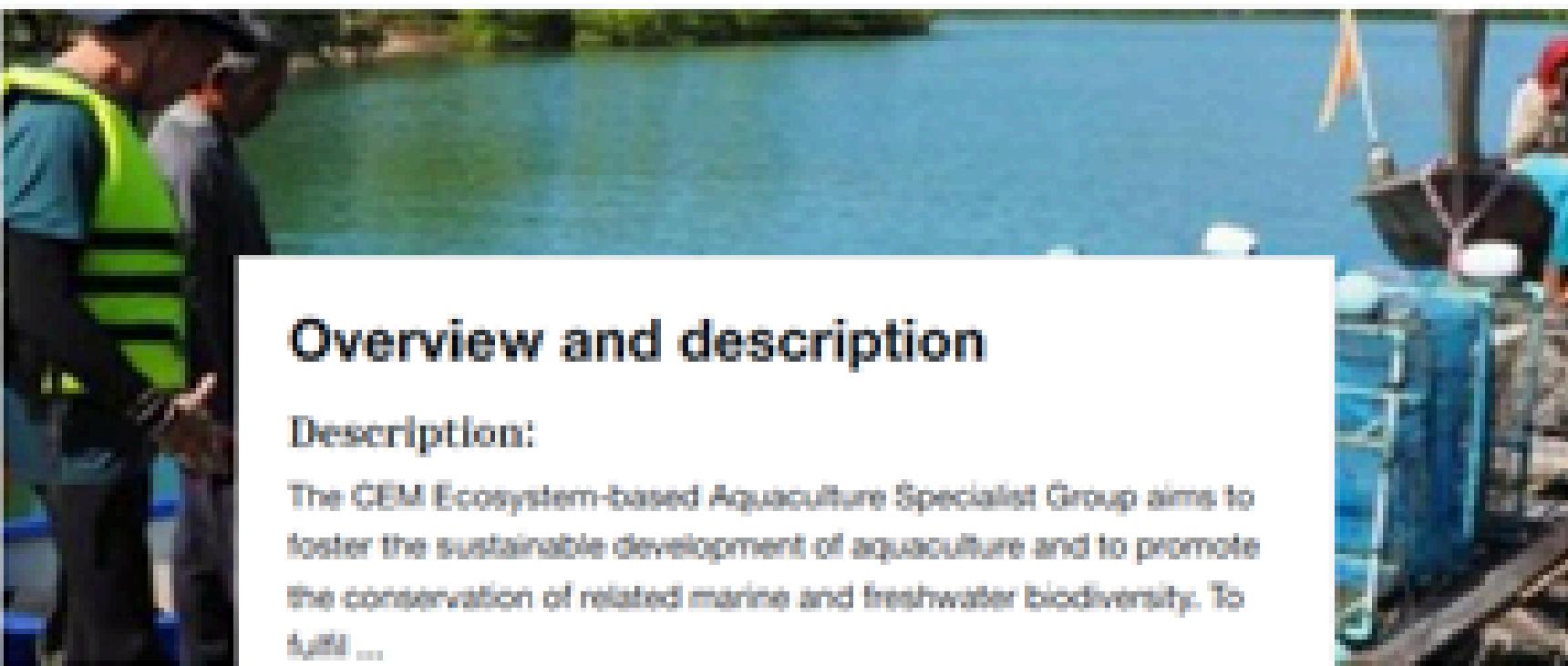
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Overview and description
Group leadership
At a glance

IUCN COMMISSION GROUP

## IUCN CEM Ecosystem Based Aquaculture Specialist Group




### Overview and description

**Description:**

The CEM Ecosystem-based Aquaculture Specialist Group aims to foster the sustainable development of aquaculture and to promote the conservation of related marine and freshwater biodiversity. To fulfil ...

[Read More](#)

### Group leadership



#### Dr Dhinakaranamy INBAKANDAN

**Co-Lead**

Dr. D. Inbakandan is Professor (Research) & Head, Centre for Ocean Research, Sathyabama Institute of Science and Technology, Chennai, and Co-Chair of the Ecosystem-based Aquaculture & Fisheries Group (E-bAG), IUCN Commission on Ecosystem Management. With 27 years of expertise in marine biology, fisheries, aquaculture, biofouling, nanobiotechnology, genomics, and coastal conservation, he has executed 37+ funded projects supported by MoES, DBT, DST, BRNS, ICAR, and international agencies. Recipient of the DST-SERB Young Scientist Award and K. Chidambaram Memorial Award, he has developed 11+ patents, 65+ publications, and advanced SDG-14 through innovation and collaboration.

## Joint online-conference with the Indian Institute of Science Education and Research

Sathyabama university as a body works directly for research and engagement with industries to practice technologies that enable marine industry to minimize or prevent damage to aquatic ecosystems. On the 23<sup>rd</sup> of August, the joint online-conference with the Indian Institute of Science Education and Research, Kolkata (IISER-Kolkata) and Sathyabama Institute of Science and Technology (SIST) was held in A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia. One of our scientists presented the report “Impact of ocean acidification on seaweed physiology and possible implications on coastal food chain”.

<http://www.imb.dvo.ru/index.php/en/news-announcements/1704-online-conference-with-the-indian-institute-of-science-education-and-research-kolkata-iiser-kolkata-and-sathyabama-institute-of-science-and-technology-sist>



On the 23rd of August, the joint online-conference with the Indian Institute of Science Education and Research, Kolkata (IISER-Kolkata) and Sathyabama Institute of Science and Technology (SIST) was held in A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok.

This online-conference was aimed at the mutual familiarization with the activities of these scientific organizations and determination of scientific directions for the further strengthening of cooperation.

From the Russian side, the NSCMB FEB RAS was represented by the Director of **Igor. Yu. Dolmatov**, Corr. Member of RAS, Deputy Director for International Cooperation Ph.D. **Konstantin A. Lutaenko**, the Director of the Scientific-Educational Center "Primorsky Aquarium", Branch of the NSCMB FEB RAS, **Olga G. Shevchenko**, the Scientific Head of the Laboratory of Deep-Sea Research Ph.D. **Tatyana N. Dautova**, the Scientific Head of the Laboratory of Physiology Ph.D. **Igor I. Puschin** and Communication Specialist of International Cooperation Department in "Primorsky Aquarium" **Natalia V. Miroshnikova**.



The Indian side was represented by Prof. **Punyasloke Bhadury**, Dr. **Anwesha Ghosh**, Mr. **Arkaprava Mandal**, Dr. **Amit Kumar**, Mrs. **Nirupama Saini** and Mr. **Yash**.

## Sathyabama's contribution towards Sustainable Fishing and Conservation

The university conducts public awareness campaigns for the conservation of endangered species like sharks and rays in Tamil Nadu coastal waters, distributing identification flyers in the local language to fishermen.

It also initiated the cultivation of red seaweed (*Kappaphycus alvarezii*), providing rigorous entrepreneurship training to fisherwomen as an alternative source of income, thereby promoting sustainable use of marine resources.

## Developing Strategies to Support Dugong Conservation in the Palk Bay

Sathyabama university collaborates with the local community through partnerships, in efforts to maintain shared aquatic ecosystems. One of our scientists from the Centre for Climate Change Studies has been part of the Intra-Regional Workshop on Developing strategies to support dugong conservation in the Palk Bay, Tamil Nadu organized by Wildlife Conservation Society –India on 19-20 October 2023. The main aim of the workshop was understanding of the challenges faced by natural resource management agencies with a goal to mainstream dugong and seagrass conservation into the fisheries sector mainstream dugong and seagrass conservation into the fisheries sector.



“DEVELOPING STRATEGIES TO  
SUPPORT DUGONG CONSERVATION  
IN THE PALK BAY”



19-20 OCTOBER 2023

MAHABALIPURAM, TAMIL NADU



Dr. S. Prakash, from the Sathyabama Institute of Science and Technology, discussed the diversity of coral reefs in Palk Bay and the collection of live animals for the ornamental trade. Reports indicate the presence of 87 fish species, 21 invertebrate species, and various corals in the area. Additionally, a high incidence of endangered taxa, such as sea horse, sea turtle, skates and rays including in bycatch, has been observed. Dr. Prakash stressed the importance of effectively utilizing Local Ecological Knowledge (LEK) and Citizen Science initiatives to address these concerns.





## Outreach act towards Seagrass ecosystem Services, Conservation and Restoration

Centre for Ocean Research, Sathyabama Research Park, organized DST-SERB sponsored Scientific Social Responsibility (SSR) programme on “Outreach act towards Seagrass ecosystem Services, Conservation and Restoration” for Olaikuda Fisherman Community which was held at Community hall, Rameswaram on 26<sup>th</sup> August, 2023.

The program was aimed to raise awareness among the fisherman community about the vital importance of Seagrass ecosystems along Tamil Nadu Coasts and to bring attention to the plight of seagrass meadows, encourage people to protect, take action and promote solutions for their sustainable management, conservation and restoration. Many fisher men and women participated in the program.

<https://www.facebook.com/SathyabamaOfficial/posts/pfbid0ZxeDUGuQZzqbkmP1c25m45uK2d6cWdU4bvbNAB7dkhjXmrXTNvn4xiHVuPX17NGDI>

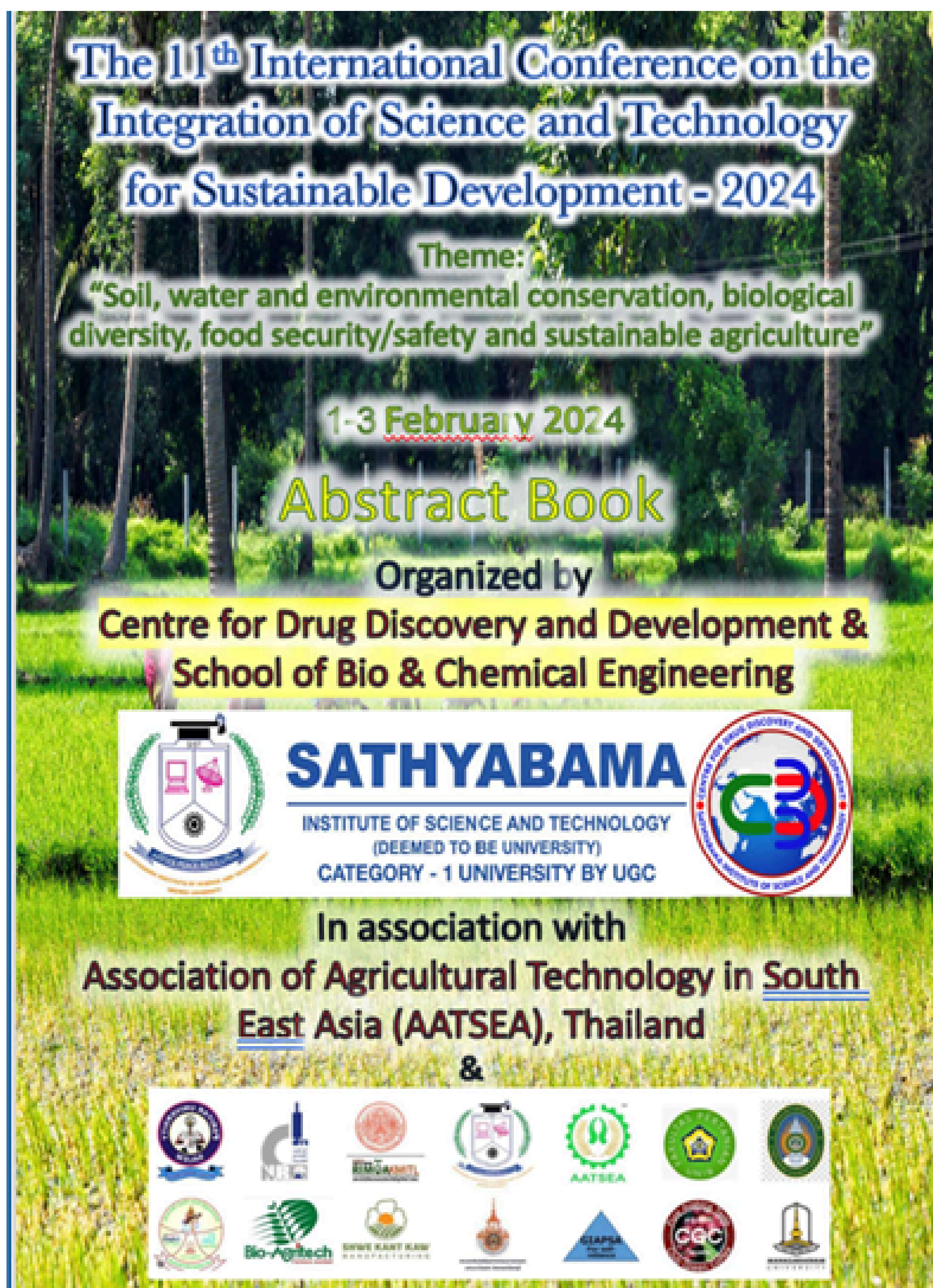


## International Conference on the Integration of Science and Technology for Sustainable Development 2024

Sathyabama offers educational programmes on fresh-water ecosystems such as water irrigation practices, water management and conservation for local and national communities through educational programs and outreach activities. Centre for Drug Discovery and Development & School of Bio & Chemical Engineering in Association with Association of Agricultural Technology in South Asia (AATSEA), Thailand has organized 11<sup>th</sup> International Conference on the Integration of Science and Technology for Sustainable Development 2024 from 1<sup>st</sup> to 3<sup>rd</sup> February 2024 on the theme “Soil, water and environmental conservation, biological diversity, food security, safety and sustainable agriculture”.

<http://www.aatsea.org/icist2023/assets/img/bookofabstract/20240131BookofAbstractICIST2024.pdf>





## National Workshop on Blue Biotechnology

our university as a body support and organise events aimed to promote conservation and sustainable utilisation of the oceans, seas, lakes, rivers and marine resources by organizing events and awareness programs. National Facility for Coastal and Marine Research, a centralized hub established in Sathyabama Institute of Science and Technology is a pioneering initiative and a first of its kind in the country for advancing the blue biotechnology research, organized the National Workshop on Blue Biotechnology on 5-6th July 2024, sponsored by MoES which would pave the way for innovative solutions and sustainable practices in blue biotechnology.

<https://www.theweek.in/konnect/economy/2024/07/10/a-one-of-a-kind-marine-research-facility-launched-at-sathyabama-university.html>



## Swachh Bharat Mission Initiative – students towards societal responsible citizens

The NSS Unit of Sathyabama Institute of Science and Technology has participated in Shramdaan for Swachhata in collaboration with Central Bureau of Communication and Regional directorate of NSS as a part of our outreach activities on 1<sup>st</sup> October, 2023 at Akkarai Beach, Injambakkam Village, East Coast Road, Chennai. Sathyabama students have done a Beach cleaning drive and conducted a social awareness rally on Essentials of Garbage free India to the public thereby motivating the students to be societal responsible citizens. It is an Initiative to protect the coastal zone for the wellbeing of the upcoming generation. Around 40 volunteers have actively participated to complete this event successfully.

<https://www.facebook.com/SathyabamaOfficial/posts/pfbid0Ebqn7wvGjxJcqhE8R9Fh1T2JB AufogumTF9XHsvRcBqs61U3DvXyokw61LW6UqBdl>





Lake cleaning drive

The NSS unit of Sathyabama Institute of Science and Technology led a comprehensive lake cleaning drive in Kumizhi Panchayat, near Guduvanchery, Chennai on August 24, 2023. Over 150 dedicated volunteers actively participated in the initiative. The event encompassed rigorous cleaning efforts, waste segregation, and educational sessions on environmental conservation. Volunteers collaborated with local authorities and residents to restore the lake's ecosystem and promote community involvement in maintaining its cleanliness. Through collective action and commitment, the initiative not only beautified the surroundings but also raised awareness about the significance of preserving water bodies for a sustainable future.





## World Water Day

The NSS unit of Sathyabama Institute of Science and Technology in commemoration of World Water Day on March 22<sup>nd</sup> 2024, with enthusiastic participation from approximately 100 volunteers. The day's activities highlighted the importance of water conservation and sustainable management practices. Volunteers engaged in various initiatives, including awareness campaigns, clean-up drives along water bodies, and distribution of water-saving tips. Through these endeavors, the NSS unit aimed to foster a greater understanding of the vital role water plays in our lives and inspire collective action toward ensuring its availability for future generations.



## Training programme on Advances in Marine Biofilm Biology

Sathyabama Research Park – Centre for Ocean Research, in association with Department of Biotechnology (DBT), Govt. of India organized 5 days “Workshop & Hands on training programme on Advances in Marine Biofilm Biology” from 3<sup>rd</sup> – 7<sup>th</sup> October 2023. Students and scholars from various institutes like IIT Delhi, BITS Pilani, KK Birla Goa campus, Nandanam Arts College, Chennai, SIMATS School of Engineering, Chennai were provided with insights and techniques in quantifying the marine microbial biofilms. Participants were also provided with hands-on training on different modules.

<https://www.facebook.com/SathyabamaOfficial/posts/pfbid02oY2zipjDG9qZdc2qta7kEC5JS5SgTfd2pc7vZ8evwZ3U3QxAZutVFr8HVAxZVg2sl?rdid=0cbCVrD9nOfFkt0E#>



## The World Fisheries Day Celebration

Centre for Ocean Research, Sathyabama Research Park in association with School of Bio and Chemical Engineering, Sathyabama Institute of Science and Technology, commemorated the World Fisheries Day Celebration on 21<sup>st</sup> November 2023. To emphasize the theme and importance of World Fisheries Day, a competition was organized for school and college students to showcase their models, posters, paintings, and photography. Around 60+ students participated and benefited from various colleges and schools along with the research faculties. Fisheries contest (Posters/Models/Paintings/Photography) was conducted among participants to showcase their talents on the theme of fisheries Conservation and sustainable management.

<https://www.facebook.com/SathyabamaOfficial/posts/pfbid02ATaanZXER385BE69moirDyXnyn7cT1cajPr5QQrXFkWrAXucNLtKcZtBvdaYP7a5l>



## Marine Biology Outreach and Education for School Students

Sathyabama Ocean Research Field Facility, Centre for Ocean Research in association with the Department of Biotechnology and MoES - Earth Science and Technology Cell has jointly organized One day Program for “Marine Biology Outreach and Education for School Students” on 29.09.2023. A total of 43 school student’s participants from 11th standard students from Bethel Matriculation Higher Secondary School, Velachery, Chennai, Tamil Nadu. The program fostered a sense of responsibility towards the conservation of our oceans and marine life.

<https://www.facebook.com/SathyabamaOfficial/posts/pfbid02nvDS2pTLSFBd4ujWZjvVjwASep4GrHCvTZsXdfKGXssf9gZkWhXHJUNLEV2oZQiMI>





## Youth Voices on Fisheries Law

**SCIENCE COURT - Youth Voices on Fisheries Law”** – an inter departmental initiative is organized by Centre for Ocean Research & Sathyabama School of Law in association with International Union for Conservation of Nature - Commission on Ecosystem Management (IUCN – CEM) on 16<sup>th</sup> August 2023. The event was conducted as a legal debate in the Moot Court Ecosystem in the witness of Dr. E. Vivekanandan, National Consultant & Fisheries Expert and the Senior Scientific Consultant, ICAR CMFRI and Ms. Abisha Isaac George, the leading Advocate from the Madras High Court.

<https://www.facebook.com/SathyabamaOfficial/posts/pfbid0yaZewYfSJ7yURcsYDSz12fsGx97YH83E6Cqa3qPqeJkGosP1Xdh5Q2WUM1tUV1iil>





## Educational initiatives targeting local and national communities

Sathyabama is actively engaged in various educational outreach initiatives targeting local and national communities raising awareness about overfishing, illegal, unreported and unregulated fishing and destructive fishing practices. Centre for Climate Change Studies (CCCS) with the support from Ministry of Earth Sciences (MoES) Government of India has organized Marine Biology Research Symposium (MBRS 2024) from 23<sup>rd</sup> to 25<sup>th</sup> JAN 2024 to create awareness. It was a platform that brought together marine biologists, researchers, and enthusiasts from across India and around the world to share their ongoing research and innovative ideas. The symposium enabled participants to hear cutting-edge scientific advancements from leading experts.

[https://mbrs2023.wordpress.com/wp-content/uploads/2024/01/book-of-abstract\\_mbrs-2024-final-1-1.pdf](https://mbrs2023.wordpress.com/wp-content/uploads/2024/01/book-of-abstract_mbrs-2024-final-1-1.pdf)







SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY  
(DEEMED TO BE UNIVERSITY)  
CATEGORY - 1 UNIVERSITY BY UGC

MARINE BIOLOGY  
RESEARCH SYMPOSIUM  
(MBRS 2024)  
23-25 JAN 2024

Organized by  
CENTRE FOR CLIMATE CHANGE  
STUDIES (CCCS)

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Ministry of Earth Sciences  
Government of India

About the conference

This 3-day Marine Biology Research Symposium (MBRS-2024) aims to bring together marine biologists, researchers and enthusiasts from across India and the rest of the world to facilitate the exchange of their ongoing research and innovative ideas. The symposium will be a platform to hear groundbreaking research advances from leading researchers and an opportunity to build collaborative networks. Theme of the symposium is in line with SDG 14 (Life Below Water) as a major component.

THEMATIC AREAS

> Taxonomy, Biodiversity and Conservation (TBC)

> Blue Carbon and Coastal Ecosystems (BCCE)

> Physiology of Marine Organisms to Climate Change (PMCC)

> Marine Pollution and Impact (MPI)

> Marine Microbial Ecology & Bioprospecting (MMEB)

> Coastal and Ornamental Aquaculture (COA)

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LIFE BELOW WATER



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