



KUFOS



**KERALA UNIVERSITY
OF FISHERIES AND
OCEAN STUDIES**
KOCHI, KERALA, INDIA



www.kufos.ac.in

About the University

The Kerala University of Fisheries and Ocean Studies (KUFOS), established on November 20, 2010, is India's first university dedicated to fisheries and ocean studies. KUFOS serves as a hub for advanced education in fisheries, ocean sciences, and related fields, with a mission to develop skilled manpower and promote systematic research, capacity building and extension activities. The university operates from a 62-acre main campus at Panangad, on the outskirts of the city of Kochi, and has two additional campuses, a 50-acre brackish water and marine aquaculture research facility at Puduyppe (Vypeen island, Kochi), and a College of Fisheries at Payyanur in Kannur District.

As a premier institution in Kerala for fisheries and ocean science-related disciplines, KUFOS has a long-term vision of becoming a globally recognized centre of excellence in fisheries, aquaculture, and ocean sciences by spearheading transformative education, cutting-edge research, and sustainable innovation that empowers communities and catalyses the blue economy.



Accreditations and Rankings

KUFOS is the first University in the state of Kerala to be accredited with an A Grade in its first accreditation cycle by the National Assessment and Accreditation Council (NAAC). Besides, the University has been accredited with the 12B Status of the University Grants Commission (UGC), as well as by the Indian Council for Agricultural Research (ICAR) and the All-India Council for Technical Education (AICTE).

Our Mission

The mission of the university is to serve as a flagship of higher learning through demonstrated and growing excellence in teaching, research, extension, scholarship and creative work in fisheries and ocean studies, comparable with global standards that will benefit the country and the world at large.

Our Vision

KUFOS envisions becoming a globally recognized centre of excellence in fisheries, aquaculture, and ocean sciences by spearheading transformative education, cutting-edge research, and sustainable innovation that empowers communities and catalyses the blue economy.

Highlights

KUFOS prides itself to be the only University in India:

- entirely focussed on fisheries, ocean science and allied subjects
- where 20% seats of every course are reserved for 'Children of Fishers'
- with an Atal Incubation Centre in Fisheries funded by NITI Ayog
- with state-of-art Mobile Aqua Clinic for aquatic disease surveillance
- to implement anti-dowry declaration during annual convocation



Academic Programs

KUFOS offers a range of academic and research programs aligned with state, national and global priorities. These include two undergraduate, 27 specialized postgraduate courses, and PhD programs under four faculties – Fisheries Science, Ocean Science & Technology, Management and Engineering, which together envision to produce a pool of professionals and innovators contributing to the global development of fisheries and ocean sciences sector.

UNDERGRADUATE PROGRAMMES

1) Bachelor of Fisheries Science (BFSc):

Four-year undergraduate programme recognized by the Indian Council for Agricultural Research

2) Bachelor of Technology (BTech) in Food Technology:

Four-year undergraduate programme recognized by the All-India Council for Technical Education

POST GRADUATE/MASTERS PROGRAMMES

1) Master of Fisheries Science (MFSc):

Two-year postgraduate programs in the following nine disciplines

- Aquaculture
- Aquatic Animal Health Management
- Aquatic Environmental Management
- Fish Genetics and Breeding
- Fish Nutrition and Feed Technology
- Fish Processing Technology
- Fisheries Extension
- Fisheries Resource Management
- Fishing Engineering and Technology

2) Master of Science (MSc):

Two-year postgraduate programs in the following twelve disciplines

- Applied Geology
- Atmospheric Science
- Biotechnology
- Disaster Management
- Environmental Sciences
- Food Science and Technology
- Marine Biology
- Marine Chemistry
- Microbiology
- Physical Oceanography
- Remote Sensing and GIS
- Statistics



3) Master of Business Administration (MBA):

Two-year postgraduate program with dual specialization in Finance/Marketing/Human Resource Management

4) LLM in Maritime law :

Two-year postgraduate program with Specialisation in Maritime Law

5) Master of Technology (MTech):

Two-year postgraduate program in three disciplines

- Coastal and Harbour Engineering
- Food Technology (Food Safety and Quality Assurance)
- Geoinformatics

FOUR-YEAR UNDER GRADUATE (FYUGP) PROGRAMMES

- Bachelors of Business Administration (BBA Honours/Research) (FYUGP)
- Bachelors in Ocean Science (Honours/Research) (FYUGP)

FIVE-YEAR INTEGRATED POST GRADUATE (FYIPG) PROGRAMMES

- Integrated Bachelors-Masters in Marine Biology
- Integrated Bachelors-Masters in Food Science and Technology

- Integrated Bachelors-Masters in Climate Science and Data Analytics

DOCTORAL PROGRAMMES

PhD program in the broad areas of Fisheries Science, Ocean Science and Technology, Management and Engineering.

Online Courses

The University also offers MOOC courses (Massive Open Online Course) via the Indian Institute of Technology Madras/National Programme on Technology Enhanced Learning (NPTEL)-SWAYAM platform in i) Food Packaging Technology and Canning Technology and ii) Value Addition of Seafood. KUFOS also runs a highly popular MOOC on “Understanding the Arctic: Climate and the Need for Environmental Protection” via SWAYAM platform.

UPCOMING PROGRAMMES:

- PG Diploma in Food Business Management (PGDip FBM)
- PG Diploma in Food Export Import Management (PGDip F-EXIM)
- Ocean literacy (online)
- Maritime Heritage of India (online)

International collaborations –MoUs

The research activities of KUFOS are truly international in scope and active research collaborations are in place with many international institutions spread across North America, Europe, Africa, Asia and Australia. KUFOS is a partner to an Indo-Norwegian academic exchange programme through which students and faculty members of KUFOS carry out training and research visits to NOFIMA, the Norwegian Institute of Food, Fisheries and Aquaculture, Norway.

In addition, active collaborations including MoUs are in place with the following Universities:

- National Taiwan Ocean University (NTOU), Keelung, Taiwan
- Hawassa University, Ethiopia
- Bournemouth University, UK
- National Chung Cheng University (CCU), Taiwan
- Asia University (AU), Taiwan
- Shu-Te University (STU), Kaohsiung City, Taiwan
- Texas State University



Facilities

KUFOS has state-of-art physical facilities and infrastructure supporting its mission to provide high-quality education, advanced research and practical training in fisheries, aquaculture, ocean science and allied disciplines. Some of the major facilities include

- A two-storey central library building with 19,000+ books, e-journals, and e-resources including Wi-Fi access and LAN-enabled computer labs supporting modern digital learning
- Central instrumentation facility
- Referral Aquatic Animal Disease Diagnosis Laboratory
- Automatic Weather Station
- Business Incubation Centre
- Audio-visual studio
- Public Aquarium
- Multi-species hatchery

Additionally, the University has sports and recreation facilities including a 25-metre-long swimming pool, gymnasium, basketball, volleyball and badminton courts, table and a proposed 400 m synthetic athletics track. There are also separate hostels for boys and girls, an international student hostel, guest house, seminar complex and cafeterias.





Research and Innovation

The University has become a leading name both within the country and internationally for its contributions to advancing research and innovation in fisheries, aquaculture, marine biology, and allied disciplines, and providing science-based insights to policy makers and governments. Through pioneering studies, technology development, and industry partnerships, KUFOS drives sustainable solutions for development, conservation and management of the fisheries, ocean sciences and the blue economy sector at large. KUFOS is globally renowned for its work on aquatic biodiversity conservation, polar biology and ecology, geology and remote sensing, aquatic animal health management, and marine ecology. By fostering innovation, entrepreneurship, and interdisciplinary collaboration, KUFOS continues to shape the future of India's aquatic resources and ocean sustainability.



Research Outputs

KUFOS has an extremely productive publication record with more than 1000 papers since its inception in some of the world's leading scientific journals including Nature, Science Advances, Lancet Planetary Health, Cell Stem Cell, and Trends in Ecology and Evolution. Around 12% of publications from the University are contributed by graduate students and little more than 60% by PhD candidates. Sixty-two students have received their PhD degree from the University, and more than 300 are currently enrolled.

Beyond borders – national and international impact

KUFOS carries out pathbreaking research not only in Kerala, but across India and around the world. KUFOS has regular presence in India's Arctic and Antarctic Missions, and Southern Ocean expeditions with both faculty and students contributing to research in frontier areas of polar biology and ecology. KUFOS has also developed India's first MOOC Course on Arctic Policy. University is involved in the development of techniques for coral transplantation efforts in Lakshadweep, and has actively involved in research and monitoring of marine biodiversity in the various islands of the archipelago. The University is internationally recognized for its contribution to the discovery and documentation of aquatic biodiversity in the freshwater and marine ecosystems of the Indian subcontinent – some of these include the discovery of the world's largest cave fish and the world's only subterranean snakehead.



Centres of Excellences (CoEs)

Several specialized Centres of Excellence (CoEs) have been established at the University to advance core research and innovation in the areas of fisheries, aquaculture, ocean sciences, food processing and allied areas. These CoEs serve as hubs for basic and applied research, aligning with KUFOS's mandate to develop human resources, technologies and partnerships in the fisheries and ocean studies domains.

- Centre of Excellence for Indigenous Fish Production & Aquatic Animal Health Management (CIFPAAH) is dedicated to advancing sustainable aquaculture practices and aquatic animal health.
- Centre of Excellence in Aquatic Resource Management & Conservation (CARMC) is focused on resource management, conservation of aquatic ecosystems and environmental sustainability, with a special reference to nearshore and estuarine areas of Kerala.
- Centre of Excellence for Food Processing & Packaging Technology (CEFPT) works on value-addition, processing technologies and packaging innovations for seafood and aquatic products.



Extension and Outreach

KUFOS actively engages in extension and outreach programmes designed to empower coastal and inland fishing communities, promote sustainable aquaculture practices and conserve aquatic biodiversity. Combined, these activities help bridge knowledge-to-action gaps thus enabling fish-farmers to adopt best practices, improve productivity and sustainability of aquatic resources, and contribute to the University's mandate of serving and uplifting the lives of coastal communities, not just through education and research, but through practical outreach and community empowerment.

- Field-level technology transfer and demonstration in ponds, cages and

recirculating aquaculture systems (RAS)

- Community education & awareness campaigns to raise awareness about sustainable marine and inland fisheries, breeding and farming of food and aquarium fishes, aquatic resource management and biodiversity conservation.
- Livelihood improvement for tribal and marginalized rural communities through training in breeding and farming technologies
- Capacity-building and student engagement through programmes like the "Rural Fisheries Work Experience Programme" equipping final year students to gain hands-on field training in aquaculture, hatchery technology, fish processing and value-added fish products.



Faculty

Thirty percentage of teaching faculty have completed PhD and postdoctoral training from some of the world's top Universities and are leading names in their respective domains. Several of them are highly cited (one faculty with > 5000 citations, five with > 2000 citations, and 13 with > 1000 citations) and have received national and international awards and recognitions for their research outputs.

Significant Research Achievements

- Leading institution in India for fish taxonomy and systematics –faculty members and students have discovered and described 25 new species, five new genera and a new family of aquatic taxa.
- Standardized breeding and larval rearing technologies for eight native ornamental and food fishes of Western Ghats
- Development of a spectral library for “Uma” rice, using space-based remote sensing technology to detect water stress and growth stages in the indigenous rice variety.
- Deep-learning/AI study mapping of landslide susceptibility in Kerala



Alignment with SDGs

KUFOS actively aligns its research, teaching, and outreach initiatives with the United Nations Sustainable Development Goals (SDGs), particularly those related to environmental sustainability, food security, and marine resource management. KUFOS contributes significantly to SDG 1 (No Poverty) and SDG 2 (Zero Hunger) through innovations in sustainable aquaculture, fisheries management, and food systems research. Its environment and climate related teaching and research advance SDG 13 (Climate Action), fisheries and marine biodiversity, environment,

health and management research advance SDG 14 (Life Below Water), and freshwater biodiversity, geology and environmental science research contribute to SDG 15 (Life on Land). The University's interdisciplinary programs and MOOC courses foster SDG 4 (Quality Education) by offering capacity-building courses that empower students and professionals. KUFOS is in the forefront of contributing



to SDG 5 (Gender Equality) with close to 70% of students in the University being girls and 63% of girl students supported by scholarships/fellowships with the help of state,

national and alumni-based funding. Finally, KUFOS's policy-driven research and community engagement initiatives contribute to SDG 17 (Partnerships for the Goals) by collaborating with national and international agencies to promote sustainable use of aquatic resources and blue economy development.

Blue Future

KUFOS is actively expanding its educational programs, campuses and infrastructure to meet future global, regional and local challenges in fisheries, ocean science, aquaculture, and related fields. These include:

- Establishment of a teaching-cum-research centre for marine biology in the Lakshadweep islands
- Centre for Excellence in Blue Economy
- ATAL Incubation Centre
- Ocean Knowledge Centres in all maritime districts of Kerala
- Four-year undergraduate programs in emerging disciplines of ocean and allied sciences



For more details contact:

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Payyannur
Kollam



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