

Department of Marine and Coastal Studies- Consultancy Service Profile

Madurai Kamaraj University instituted the Centre for Marine and Coastal Studies (CMCS) in 1998 for the establishment of a Marine Field Research facility. Then the Centre has been upgraded into Department of Marine and Coastal Studies from October 2009. The department and the research team is well equipped to offer technical and consultancy service to Environment Impact Assessment studies with reference to Marine and Coastal environment for sediment, water, and biological sample analysis. Strategically the Marine Field Research Facility is located in close proximity to Mulli and Musal Islands, an ecologically sensitive marine habitat representing Coral reefs, Mangroves, Seaweeds and Seagrass ecosystems of the Marine Biosphere Reserve region of the Gulf of Mannar region. The DMCS has been recognized for the research accomplishments and has been supported by international organizations such as IOC/UNESCO, UNDP, WHO, IFS, GCRMN, GIZ and by national organizations such as the Department of Ocean Development (DOD), Ministry of Environment and Forests (MoEF), Department of Biotechnology (DBT), Ministry of Earth Sciences-NIOT, Indian Space Research Organization (ISRO), Indian Council of Medical Research (ICMR), Council of Scientific and Industrial Research (CSIR), Planning Commission (PC), Gulf of Mannar Biosphere Reserve Trust (GOMBRT) and University Grants Commission (UGC).

Area of expertise for collaborating industry:

- SCUBA diving, snorkeling and skin diving techniques for under-water reef ecology studies
- Expertise in the area of marine pollution monitoring and marine toxicological studies and ocean acidification monitoring
- Screening Marine Natural Products for Pharma and Biotech industry

Type of consultancy services to Industry

Marine Resource Assessment and Management; Environment Impact Assessment Studies for near shore and off-shore industrial projects; Ecologically sensitive habitat monitoring viz., Coral reefs, Mangroves, Seaweeds and Seagrass ecosystems and Aquaculture industries.

RESEARCH FACILITIES

1. Underwater (SCUBA Diving) monitoring facility
2. Marine Ecotoxicological (Automated Continuous Flow through bioassay) Laboratory facility
3. Marine (Coral Reef) Ecology facility
4. Ocean Acidification Research facility
5. Molecular Taxonomy and Biotechnology Laboratory facility

Equipment Facility-Underwater Ecology Research

1. FRP Boat with OBM ;
2. Digital Still & Video Cameras with Underwater Housing
3. Underwater Remotely Operated Vehicle (UWROV)
4. SCUBA Air Compressors
5. SCUBA Diving Gears and accessories
6. Water Quality analyzer-Hanna Multiparameter meter with GPS
7. LiCor Light Meter to measure PARair and PAR underwater.
8. Automatic Weather Station

Instrument / Equipment Facility-Biotechnology & Environmental Research

HPLC, PCR, UV Transilluminator, Luminometer, Gel Documentation, Fluorometer, UV-Visible Spectrophotometers, Hitachi High Speed cooling centrifuge, Semi-micro analytical balances, Microbiological Chamber, BOD Incubator, Ultrapure Water Purification System, Fluorescence and Trinocular Microscopes with Digital Cameras & Image Analysis software, ICE Maker, Ultra Low Temperature Freezer (-82°C) & Deep Freezer (-40°C), Rotary Evaporator, Microtome, Automatic Tissue Processing Unit, Digital pH meter (0.001 sensitivity), CO2 Sensor.

UW ROV



SCUBA Air Compressor



SCUBA Accessories



Fluorometer



PCR Thermal Cycler



Luminometer



Water Quality Analyser



Automatic Tissue Processing Unit



Fluorescence Microscope



Microbiological Incubator



Flow- Through Toxicity Testing Chamber

