

(Accredited with 'A' Grade by NAAC)

# **FACULTY OF MARINE SCIENCES**

# POST GRADUATE DEGREE PROGRAMMES

**PROSPECTUS: 2017 - 18** 

(Information & Instructions to Candidates)

University website: <u>www.annamalaiuniversity.ac.in</u>

# **Annamalai University**

Annamalai University, one of the largest unitary, teaching, and residential Universities in Southern Asia, was established and incorporated in the year 1929 as per the Annamalai University Act 1928 (Tamil Nadu Act 1 of 1929). Now, the Annamalai University Act, 1928 has been repealed and replaced by the Annamalai University Act 2013 (Tamil Nadu Act 20 of 2013). His Excellency the Governor of Tamil Nadu is the Chancellor of the University.

Established in 1929, Annamalai University, accredited with 'A' Grade by NAAC in 2014 is one of India's largest public residential universities with 10 Faculties and 50 departments of study. Annamalai University is one of the first institutions in the country to offer courses in Engineering and Technology. The University has initiated several innovative teaching programmes over the years and has been a pioneer in distance education. Annamalai University has a commendable track record in projects and publications and has been awarded the PURSE Programme by the Department of Science and Technology. Nineteen departments are supported by UGC-SAP, Sixteen by DST-FIST and two departments have attained the status of Centre of Advanced Study. The University has been rated Seventeenth in the country among the Top 100 institutions of Higher Education and Second in the State by SCImago Institutional Ratings. Annamalai University has joint research and innovation partnerships with 24 institutions across the USA, Europe, Australia, Japan, and the UK. The list of partners includes prestigious institutes like Karolinska Institute, John Hopkins University, and University of Michigan amongst others. Two of the most notable international collaborations in which Annamalai University is the Co-ordinating Institute include the Indo-EU FUNCFOOD Project and the 21st Century Indo-US Knowledge Initiative. There are several ongoing research projects with international foundations and industrial players like Bayer, CavinKare, Dow Agrosciences, Bill & Melinda Gates Foundation, HCL, L&T, Accenture, and Huawei.

The University Library, named after the eminent scholar, statesman and former Vice-Chancellor Dr. Sir C.P. Ramaswami Aiyer, serves as knowledge hub for the students and the staff. Quite a good number of journals can be accessed through the Infonet facility. Science Direct is subscribed through which 340 journals can be accessed.

The sports complex of the University spreads over several acres, houses facilities for sports and games. Tennis court complex, basketball complex, volleyball complex, athletic standard track, cricket field & nets, football field, hockey field and a wooden floored indoor stadium are a few worth mentioning.

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### I. FACULTY OF MARINE SCIENCES

The Centre of Advanced Study (CAS) in Marine Biology is a reputed Marine Institute in India which is actively engaged in teaching, research and extension activities in Marine Sciences. The advantage of the Centre is the ideal location and easy access to different biotopes such as estuary, mangrove, backwaters and coastal waters. Despite being located 12 k.m. away from the main campus, the Centre made rapid strides in various facets of Marine Science. This Centre, the brain child of the Eminent Scientist (Late) Prof. R.V. Seshaiya, was established at Parangipettai during 1957 as a field laboratory for the Department of Zoology. The status of a separate department to this station was conferred in 1961. In October 1963, this department was recognized for its outstanding research contribution by the University Grants Commission (UGC) as the Centre of Advanced Study in Marine Biology and the Commission continues to extend generous assistance. The main laboratory building of this Centre was declared open by the first Chairman of UGC, Dr. C.D. Deshmukh. Right from the inception through the fledgling Marine Biological Station days, this Centre has been the cynosure for the scientific community world over.

Considering the remarkable research contributions made, UGC identified and recognized this Centre for implementing COSIST Programme in 1987 besides the routine plan assistance upto XI plan period. In addition, the UGC also supported the Centre under SAP from "1984 to 2009" and "2015-2020". In the year 2011, UGC recognized this Centre as the Centre with Potential for Excellence in Particular Area – Marine Biology (CPEPA). The Ministry of Environment and Forests, Government of India, established Environmental Information System (ENVIS) Centre during 1992, as one among the 76 Centres. The Centre was assigned to document the present status of coastal biodiversity along the east coast of India. The Ministry of Earth Sciences (formerly known as Department of Ocean Development), Government of India, established Ocean and Atmospheric Science & Technology Cell (OASTC) and based on the accomplishments the Cell has been upgraded as **DOD-Centre of Excellence in Marine Biology** during 2004. Further, the Ministry of Science and Technology, New Delhi has identified the Centre for support in Level-1 category under the Funds for Improvement of Science and Technology infrastructure in Universities and higher educational institutions (FIST). The Department of Biotechnology is supporting the Centre for the conduct of a two year Post Graduate Course on "Marine Biotechnology" from 2002. The Centre has successfully completed more than 210 research projects and 35 research projects funded by various national and international funding agencies are on-going.

Recognising the expertise and excellent scientific achievements of the Centre, the United Nations University having its Head Quarters in Tokyo signed a Memorandum of Understanding (MoU) with the Annamalai University in 2000 to conduct Training Workshop on **Methodologies** for Assessing Biodiversity of Coastal Ecosystems for trainees from developing Countries in Asia and recently University of Highlands and Islands, Scotland, UK has entered MoU with the University.

The Central Instrumentation facility for all staff, scholars and students is equipped with major analytical instruments like ICP, HPLC, HPTLC, Microbial Identification system, GCMS, CHNS&O analyzer, Fluorescent Microscope, Elisa Reader, 2D Gel electrophoresis, Scintillation Counter, UV-VIS Spectrophotometer, Spectrofluorometer, High speed refrigeration centrifuges, Mercury analyzer, PCR, RT-PCR, Gel documentation system and freeze dryer. Other facilities include Cell and tissue culture facility, Seawater circulation system, Marine Botany research laboratory, Plankton identification and culture facility, Aquaculture demonstration ponds, cage culture materials, Gene bank of rare mangrove species, all physical oceanographic field instruments and INCOIS potential fishing zone electronic display board. The library houses a sizable collection of text books (nearly 7,000) and more than 10,000 volumes of journals (both national and international) dealing with research in Marine Science. An excellent display and reference collections of authentically identified specimens of flora and fauna of this area collected over a period of 40 years are maintained at the Museum. An air-conditioned well furnished auditorium fitted with 2 LCD projectors with a capacity to seat two hundred is available. A Seaworthy boat fitted with diesel engine is available for field collections. The Centre has access to broad band dedicated 4 MBPS internet connectivity with 161 terminals. Abstracting Services and E-journals are available. In recognition of the academic accomplishments achieved, the University elevated this Centre as a separate FACULTY from the academic year 2010-2011.

In 2013, the Ministry of Human Resource Development (Govt. of India), has identified this centre to setup a Centre of Excellence for Training and Research in Frontier Areas of Science and Technology.

### **CHOICE BASED CREDIT SYSTEM (CBCS)**

The Choice Based Credit System was introduced from the year 1999–2000. The Post-graduate programmes offered by this faculty are four semester programmes that would lead to a Post graduate degree in the respective subjects.

These programmes offer a package of certain courses and some elective courses that allows effective interaction among students of different disciplines. The novelty of the programmes is in the inter-disciplinary curriculum with a pronounced accent on frontier areas of knowledge. Under this system, the programme comprises of several courses which are referred to in terms of the credits they are worth, and the grading of students according to their performance.

#### 1.1 Programmes Offered

The Centre is offering diversified Post Graduate Academic Programmes (M.Sc.) in Marine Biology & Oceanography, Coastal Aquaculture, Marine Biotechnology, Marine Food Technology, Marine Microbiology, Marine Pharmacology and Marine Chemistry.

#### 1.2 Duration

The duration of all the courses offered two academic years comprising of four semesters.

Medium of Instruction for all the programmes is English.

#### 1.3 Structure of the Programme

The Master's Programme will consist of

- i. Core courses which are compulsory for all students
- ii. The students can choose elective courses from the programmes approved in other departments of the same Faculty and from the Faculties of Science, Indian Languages, and Education.
- iii. Elective subjects are allotted after counseling, by a committee consisting of the Head of the Departments / Senior Professors under the Chairmanship of the Dean.
- iv. Dissertation/Project work/Practical training/Field work, which can be done in an organization, Government, Industry, Firm, Public Enterprise, etc., approved by the department concerned.

#### 1.4 Hostel

Admission to the hostel is Compulsory and no associate will be allowed. The room rent and establishment charges will be at the rate fixed from time to time.

SI. No.	Hostel Name	Caution Deposit ()	Annual Hostel & Mess Charges ()	Total ()
1.	Kayal Illam	5,000/-	40,000/-	45,000/-

#### II. TUITION FEE & SCHOLARSHIP

### 2.1 Tuition Fee

The details of Tuition Fee to be paid by the candidate are as follows.

S.No.	Name of the Programme	Total (`)
1.	M.Sc. Marine Biology & Oceanography / Coastal Aquaculture 25,0	
2.	M.Sc. Marine Biotechnology / Marine Food Technology / Marine Microbiology / Marine Pharmacology / Marine Chemistry  30,085/-	

#### 2.2 Scholarship

The students of Annamalai University can avail the Government Scholarships subject to eligibility.

- Application Fee Concession to SC/ST and Converted Christian Students: Course Application fee concession is granted to students belonging to SC/ST Community and Converted Christian by the Government Tamil Nadu (G.O. No. 111. 22.09.1998).
- ii. **Tuition Fee Concession to SC/ST and Converted Christian Students:** Full Tuition fee concession is granted to students belonging to SC/ST community and converted Christian under the rule 92 of Tamil Nadu Education Rules by the Government of Tamil Nadu [92-TNER].

iii. Other State Scholarships:

Other State Scholarships for SC/ST/BC/OBC/EBC students.

**Puducherry State Scholarships** only for Puducherry SC/ST Students.

"ISHAN UDAY" Scholarship for Northern Eastern Region Students.

- iv. **Minority Scholarship:** Minority Scholarship award on the basis of merit cum means for minority community students.
- v. **Higher Education Special Scholarship:** In addition to the Post Metric Scholarship, Higher Education Special Scholarship is awarded to the hostel students belonging to SC/ST and Converted Christian community and the number of scholarship is limited by the Government. The Annual income from all sources **should not exceed** 2,40,000/- per annum.
- vi. **BC/MBC/DNC Scholarship:** The Scholarship will be awarded to the Students belonging to **BC/MBC/DNC** communities whose Parent's/ Guardian's income from all sources should not **exceed** ` **2,40,000/- per annum**.
- vii. **Fee Concession to Blind Students**: Under rule 92 (TNER), Full Tuition fees concession is granted to blind Students belonging to all communities whose parents/Guardians **annual Income should not exceeds** 2,40,000/-.
- viii. **Scholarships for Women students** undergoing P.G Course: This Scholarship will be awarded belonging to SC/ST Communities studying in the Faculty of Marine Sciences. There is no income ceiling.

**Note:** All Scholarship income certificate taken after April 2015 should be produced. Except Sl.No.5, the entire fees should be paid by the students at the time of admission and the eligible amount sanctioned by the Government will be reimbursed after receiving from the Government.

ix. UGC Post Graduate Indira Gandhi Scholarship for single girl Child: This is only for the Candidate who happens to be single Girl child of the family (having no brother or sister) and who has taken admission in regular full time Master Degree course in recognised University or a Post Graduate College in conventional basic subject (Advertisement for this scholarship will be published in all leading news papers and also the Guidelines are available in the UGC Website.

## 2.4 Endowment Scholarship

- 1) Saijo Lion Club, Madras Poovai Lions Club Endowment.
- 2) Vallalar and Ramasamy Padayatchiyar Endowment.
- 3) Padma Bhushan Dr. Rajah Sir Muthiah Chettiar Jubliee CAS in Marine Biology Endowment.

# III. ELIGIBILITY CRITERIA

# General

Candidates satisfying the eligibility conditions given below as on the last date of submission of application are eligible to apply. The candidates passing the qualifying examination after the last date of submission of application shall not be considered.

# 3.1. Qualifying Examinations and Eligibility

No.	Course Offered	Eligibility
1.	M.Sc. Marine Biology &	Under Graduate Degree in Zoology / B.F.Sc. / Industrial
	Oceanography	Fish and Fisheries (with Zoology as a Subsidiary subject)
		with a minimum of 50% of marks in Part-III or any other
		degrees recognized equivalent to Zoology.
2.	M.Sc. Coastal Aquaculture	Under Graduate Degree in Zoology / Botany / Plant Biology & Plant Biotechnology / Plant Science / Animal Science / Animal Science / Animal Science & Biotechnology / Animal Biotechnology / Advanced Zoology & Biotechnology / Biochemistry / Industrial Fish and Fisheries / Microbiology / Environmental Science / Chemistry or B.F.Sc. / B.Sc. Agriculture / B.Voc. Aquaculture / Commercial Aquaculture / Industrial Aquaculture or any UGC Kaushal Kendra supported UG degree in Aquaculture or Fisheries, B.Sc. Biotechnology or B.Tech. Biotechnology / Genetic Engineering with a minimum of 50% of marks in Part-III.
3	M.Sc. Marine Biotechnology	Under Graduate Degree in Biotechnology / Biochemistry Microbiology/ Industrial Microbiology/ Industrial Fish and Fisheries/ Agricultural Microbiology /Plant Science & Biotechnology/Animal Science & Biotechnology/ Plant Biology & Plant Biotechnology / Plant Science / Zoology / Animal Science / Biotechnology & Bioinformatics / Bioinformatics / Chemistry / Animal Biotechnology/ B.Sc. Advanced Zoology & Biotechnology, B.Tech. Biotechnology / Genetic Engineering with a minimum of 50% of marks in Part-III.
4.	M.Sc. Marine Microbiology	Under Graduate Degree in Microbiology / Industrial Microbiology / Agricultural Microbiology / Biotechnology / Biochemistry / Applied Genetics / Plant Science & Biotechnology / Animal Science & Biotechnology / Plant Biology & Plant Biotechnology / Plant Science / Zoology/ Animal Science / Food Technology / Industrial Fish and Fisheries, Animal Biotechnology, Bioinformatics, Aquaculture, B.F.Sc. with a minimum of 50% of marks in Part-III.

No.	Course Offered	Eligibility	
5.	M.Sc. Marine Food	Under Graduate Degree in Food Technology /	
	Technology	Biochemistry / Applied Genetics / Microbiology /	
		Industrial Microbiology / Agricultural Microbiology /	
		Biotechnology / Plant Science & Biotechnology / Zoology	
		/ Animal Science & Biotechnology / Plant Biology & Plant	
		Biotechnology / Plant Science / Animal Science /	
		Industrial Fish and Fisheries / Animal Biotechnology /	
		Aquaculture / B.F.Sc. with a minimum of 50% of marks in	
		Part-III.	
6.	M.Sc. Marine Pharmacology	Under Graduate Degree in Pharmacy / Biochemistry /	
		Human Genetics / Applied Genetics / Microbiology /	
		Industrial Microbiology / Agricultural Microbiology /	
		Biotechnology / Plant Science & Biotechnology / Botany /	
		Animal Science & Biotechnology / Zoology / Chemistry	
		with a minimum of 50% of marks in Part-III.	
7.	M.Sc. Marine Chemistry	Under Graduate Degree in Chemistry as main Subject or	
		Zoology, Animal Science & Biotechnology / Plant Science	
		& Biotechnology / Physics / Biochemistry / Microbiology	
		as main subject and chemistry ancillary subject with a	
		minimum of 50% of marks in Part- II & III.	

Note: In case of SC/ST candidates a pass is the minimum for all Programmes.

### 3.2 Admission to Foreign Students

Students who are selected under various scholarship schemes, either by the Ministry of Education and Culture or the Ministry of External Affairs, will be given admission on the recommendations/sponsorship of the respective Ministry. Self supporting foreign students seeking admission should possess a student VISA issued by the Indian Embassies abroad and produce a No Objection Certificate from the Ministry of Education, Government of India, after clearance from the Ministry of External Affairs.

#### IV. ALLOCATION OF SEATS

Reservation of seats for candidates belonging to ST/SC/MBC/BC/OC communities will be made as per the **Rule of Reservation of the Government of Tamil Nadu**. Among the above reservations, 3% seats have been included for differently abled persons as per norms laid down by the Government.

### V. MODE OF SELECTION

The selection of candidates to all the programmes will be made on the basis of the marks obtained in Part-III and the marks obtained in the interview. The qualifying examination marks under Part-III will be reduced to 200 and the marks in the interview for 30 marks will be added. The date of interview will be informed later by post to all the eligible candidates.

### VI. CODE OF CONDUCT

The following code of conduct shall be observed by the students who are admitted.

- i. The students should conduct themselves in an exemplary manner so as to be a model for other students.
- ii. All students will have to strictly adhere to the rules and regulations of the University.
- iii. RAGGING: The candidates should not indulge or participate in any kind of ragging. If they are found to have indulged in ragging or any other antisocial activities in the past, or noticed later, the candidates will be removed from the roll of the institution at whatever stage of study will be expelled and criminal action will be taken against the candidates.
- iv. The students should be present during all working days and sincerely apply themselves to studies.
- v. The students should attend the classes regularly and punctually and should fulfil the attendance requirement of 75% as prescribed by the University, to be eligible to appear for the University Examinations.
- vi. The campus is "Tobacco Free" and "Liquor Free". Any violation of this will result in dismissal from the program.
- vii. Use of mobile phones and other electronic gadgets are not permitted in the class rooms, examination halls, faculty premises, university organized functions/ programs/ extracurricular and co-curricular activities.
- viii. The students are forbidden from using motorized vehicles, including powered two wheelers, inside the campus.
- ix. Dress Code: Students need to wear formal dress largely covering them like Sarees / Churidhar with dupatta for ladies and Trousers, Pant & Shirt for men.

#### VII. GENERAL INSTRUCTIONS

## 7.1. Application

Procedure for registration of application is Online from the University website www.annamalaiuniversity.ac.in/adm

#### PROCEDURE FOR REGISTRATION OF ONLINE APPLICATION

# 7.2 General Instructions for Applicants

- i. Online Application Number is the Registration Number of the Annamalai University M.Sc. Degree Admissions 2017.
- ii. The Candidates seeking admission should Register and apply only through Online by logging on to www.annamalaiuniversity.ac.in/adm
- iii. The guidelines for registration are available on the Annamalai University Website Portal.
- iv. The Online application Number should be quoted in all future correspondence.

v. The filled in Online application should be downloaded and sent with all the enclosures either by speed / Registered post or in person to

THE REGISTRAR
ANNAMALAI UNIVERSITY
ANNAMALAINAGAR
CHIDAMBARAM
CUDDALORE DISTRICT
TAMIL NADU
PIN- 608 002

# and should reach on or before 14.06.2017 - 5.30 p.m.

- vi. Acknowledgement will be sent to the registered e-mail on receipt of the filled in online application by post together with a demand draft for M.Sc. for SC/SCA/ST ` 200/- Others ` 400/- which is drawn in favour of The Registrar, Annamalai University, payable at Chennai.
- vii. The candidates shall ensure that the completed online application form with all particulars and enclosures reaches the Annamalai University within the date and time specified. Applications received by Speed post/courier or any other means, after the last date & time will not be accepted irrespective of the date of booking.
- viii. The University shall not be responsible for any delay in the receipt or for the loss in transit of application form etc.,
- ix. Request for extension of time for submission of documents called for, after the specified date and time will not be entertained.
- x. Any supporting documents received after the due date or application without required documents/particulars will not be entertained.
- xi. Photocopy/ Fax copy of the application will not be accepted.
- xii. Both upper limbs, vision and hearing should be normal for all candidates (including for candidates applying under orthopaedically physically disabled category).
- xiii. The candidates are directed to enclose the following certificates along with the Online application:

## Photocopy of

- 1. A Graduate / Equivalent Mark Sheet
- 2. Transfer Certificate
- Permanent Community Certificate Card for ST, SC, SCA, MBC & DNC, BC and BCM (permanent card / electronic form / digitally e-Certificate).
- 4. Nativity Certificate if applicable
- xv. Candidates are advised to post the completed online application well-in advance before the due date and time. If it is sent by post it is advisable to send by Registered post / Speed post to ensure proper delivery.

#### 7.3 Important Conditions for Applicants

- i. The candidates who have joined a programme and wish to discontinue, should pay the tuition fee in full up to the year of study.
- ii. If the candidate discontinues the programme before commencement of classes and the resultant vacancy is filled up, the fees paid by the candidate including the caution deposit will be refunded after deducting a service charge of `2,000/-.
- iii. Fees for each academic year should be paid well before the due date, failing which a fine as prescribed by the University will be charged. The Candidate shall not be permitted to appear for the University Examination without clearing the Fee arrears.
- iv. Students who have joined a programme and wish to discontinue must have topay the fees in full up to the year of study.
- v. Caution deposit shall be refunded on application after adjustment towards any dues from the student. Application for refund of caution deposit should be submitted within one year of completing the course.
- vi. No certificate will be issued, unless the candidate has cleared all the arrears of fees etc., due to the University.
- vii. With regard to any dispute arising in relation to admission, examinations, remittance of fees, etc., the place of jurisdiction for the purpose of filing a suit or preferring a complaint or taking any legal proceedings against the University, will be Chidambaram Town only.
- viii. Original Certificates submitted at the time of admission will not be returned before the end of second semester. In case a candidate requires the original certificates for valid reasons, he/she may apply for the same with valid proof. The candidates are advised to have with them attested copies of mark lists or other certificates that may be required for applying scholarships/bank loan etc.

#### 7.4. General Information

The following procedures should be followed for applying/getting certificates viz. Bonafide/Course completion/Mark lists etc. with the fee prescribed by the University.

- i. General: Mark list for each Semester/Year during the period of study will be issued by the University and distributed through the respective departments of study. On completion of the program, Provisional Certificate and Transfer Certificate will also be distributed through the department concerned.
- ii. **Migration Certificate**: This certificate will be issued by the University Office ('K' Section) only on demand to those who have planned to undergo higher studies in any Educational Institution in India.
- iii. **Duplicate Certificate** Mark List / Degree / Transfer Certificate: A certificate from the police department is required to be produced for the loss of certificates indicating that the certificates were actually lost beyond recovery.

- iv. Degree Certificate: Notification will be issued in the leading dailies during the month of September/October every year inviting application forms for obtaining Degree Certificate at the Convocation. Students shall apply for the same in the prescribed form which can be obtained from the University.
- v. **Personal File**: Students are advised to maintain a personal file containing all academic records such as challan for remittance of tuition fee, exam fee, instrument fee, condonation fee etc. till completion of his/her studies.
- vi. **Re-admission**: If any attendance deficiency during the tenure of his/her studies, candidates shall apply for re-admission through the Heads concerned along with the photocopy of his/her previous semester/year mark list(s) as proof for having appeared for the University Examinations.
- vii. Change of Name/Date of Birth: Candidate who wishes to change of Name, date of Birth, of his/her name should be made only during the period of study by producing a copy of "Gazette Notification" from the respective Government NO such change shall be entertained after completion for his/her studies in the University.

## viii. How to get Certificate:

- a) Students may apply for any certificates in this University viz., Bonafide, Course Completion, Duplicate mark list, Degree Certificate and Transfer Certificate etc, either during the tenure of his/her studies on completion of the program and may obtain the same from the office or by post within a fortnight period from the date of filing application in the office. He/she should possess compulsorily 1) a copy of letter where he/she has applied for 2) a copy of remittance challan and 3) any other documents, whenever any lapse of the original submitted to University (or) loss in transaction.
- b) If candidates do not receive the certificate/s within the stipulated period, then he/she can immediately seek the assistance of the Section Head/Deputy Registrar of the 'K' Section with relevant copy of records that has been already submitted for claiming the certificates, so as to enable them to get the certificate from the office (or) necessary guidance will be provided for the same.
- c) Students admitted to various programs of the University, should get back his/her original certificates produced at the time of admission within three months either on completion of program (or) discontinuing the same in the middle of the program. The University is not responsible for any lapse or damage of the certificates, beyond this period.

REGISTRAR (i/c)

ANNAMALAI UNIVERSITY

# **FACULTY OF MARINE SCIENCES**

## At a Glance

The Centre of Advanced Study (CAS) in Marine Biology under the Faculty of Marine Sciences is premier and pioneering Marine institute in India. This is the one and only Centre of Advanced study in Marine Biology in this country since 1963. This Centre was started in 1957 with the model of Marine Biological Stations of Woods Hole, USA. Conforming to the mandates of our University, the Centre has been actively engaged in teaching, research and extension in the frontier areas of marine science. This Centre has been recognised for its Excellence in research by UGC, MHRD, MoES & DBT, Government of India.

PROGRAMMES OFFERED	HIGHLIGHTS OF THE PROGRAMMES
M.Sc. Marine Biology & Oceanography	<ul> <li>Curriculum designed towards job market</li> </ul>
M.Sc. Coastal Aquaculture	<ul> <li>Hands on training on the Sea</li> </ul>
M.Sc. Marine Biotechnology	<ul> <li>Orientation towards independent</li> </ul>
M.Sc. Marine Food Technology	research
M.Sc. Marine Microbiology	Periodic seminars, conferences,
M.Sc. Marine Pharmacology	workshops and brain storming sessions
M.Sc. Marine Chemistry	<ul> <li>Lectures by World Class Scientists</li> </ul>
Funds Generated (Since 2007)	Infrastructure
✓ Research Projects (Completed) – 102 Nos	<ul> <li>Library &amp; ENVIS Centre</li> </ul>
Rs.18.97 Crores	<ul> <li>Reference Museum</li> </ul>
✓ Research Projects (Ongoing) – 45	<ul> <li>Aquarium &amp; GIS Lab</li> </ul>
Nos Rs. 27.33 Crores	❖ Placement Cell
Research Output	<ul> <li>Wi-Fi enabled Computer Lab</li> </ul>
✓ Ph.D. Awarded - 659	<ul> <li>Centralised Instrumentation</li> </ul>
✓ Research Papers - 2500	<ul> <li>Sea Worthy Boats</li> </ul>
✓ Books & Monographs - 65	<ul> <li>Water Sports Facilities (Kayaking)</li> </ul>
✓ Field Guide - 12	❖ Auditorium

#### **Research Collaborations**

National: NIOT, Chennai; NIO, Goa; RGCA,

Sirkali; CIBA, Chennai; CIFE, Mumbai

**International:** National University of Singapore; Leibniz University of Hannover, Germany; Scotland Association of Marine Science, U.K.; Plymouth Marine Laboratory, U.K.

## Placement and Job Opportunities

- Colleges and Universities
- Aquaculture Industries
- Seafood Industries
- > Indian and Foreign Research Labs
- Soft skill training to make students ready for facing interview
- Campus interviews

#### CONTACT

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04144-243223.