

Dr.M.ANAND

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 Department of Marine and Coastal Studies
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**1. Personal Details**

Date of Birth & Age :21 /07/1974 & 49
 Gender & Marital Status :Male & Married
 Community :SC
 Nationality :Indian
 Place of Birth :Chennai

2. Educational Qualifications**2.1. Academic**

Degree/ Examination	Name of the Exam	University/ Institute	Year of Passing	Percentage/ Grade	Main Subject
Under Graduate	BSc., Zoology	Loyola College, University of Madras	May 1994	62%	Zoology
Post Graduate	M.Sc, Marine Biology & Oceanography	CAS in Marine Biology, Annamalai University	May 1996	66%	Marine Biology & Oceanography
NET	ASRB-NET	ICAR	Oct 2001	-	Fish and Fishery Science
PGDIB (Post- Graduate Diploma in Bioinformatics)	PG Dip. In Bioinformatics	Small Industries Service Institute- Guindy, Chennai	2003	-	Bioinformatics
One year training Programme in Science Journalism	Science Journalism	National Council for Science & Technology Communication DST, Govt. of India and Indian Science Communication Society, Lucknow	2007	-	Science Journalism
Open Water SCUBA diving	Open Water SCUBA Diver	Barracuda Dive Centre Panaji, Goa	2008	-	Open Water SCUBA Dive

2.2. Research

Degree	Name of the University	Title of the Thesis	Date of Submission	Date of Award
Ph.D.,	Madras Christian College, University of Madras	Investigation on the Biology and Fishery of Rabbitfish, <i>Siganus canaliculatus</i> (Family: Siganidae) from the Gulf of Mannar Region	13.07.2005	23.06.2006

3. Post-Doctoral/ Research Associate / Industrial Experience

Name of the University / Institute / Industry	Period of Work	Nature of Work
IIT, Chennai - INSA Visiting Scientist Fellowship	2017-2018	Seaweed extract applications in dye sensitized solar cells
NIT Trichy- Teachers Associateship for Research Excellence (TARE – SERB)	2018-2021	Development of protocol for blended seaweed pigment applications in dye sensitized solar cells

4. Professional Experience

No	Name of the University / Institution	Position Held	From (Date)	To (Date)
1	Dept., of Zoology(Marine Studies and Coastal Resource Management), Madras Christian College	Lecturer	13.06.2006	10.01.2008
2	Dept., of Marine and Coastal Studies, Madurai Kamaraj University	Assistant Professor	11.01.2008	10.01.2020
3	Dept., of Marine and Coastal Studies, Madurai Kamaraj University	Team i/c.,	16.07.2014	23.07.2017
4.	School of Energy, Environment and Natural Resources, Madurai Kamaraj University	Teacher Counsellor	26.08.2019	Till date
5.	Dept., of Marine and Coastal Studies, Madurai Kamaraj University	Associate Professor and Head	11.01.2020	Till date

5. Teaching

No	Year	Semester	Course Code	Course Title	Hours per Week
1	2022-23	I	DMC2211C	Oceanography	3
2	2022-23	I	DMC2215P	Practical-1: Oceanography, Ecology & Biochemistry	2
3	2022-23	I	DMC22B1S	Marine Resource Management-1	1
4	2022-23	III	DMC2031C	Marine Pollution and Ecotoxicology	4
5	2022-23	III	DMC2234C	Research Design and Biostatistics	3
6	2022-23	III	DMC2235C	Practical-3; Marine Pollution & Ecotoxicology, Research Design and Biostatistics	3
7	2022-23	II	DMC2222C	Biodiversity	4
8	2022-23	II	DMC2225E	Aquaculture	3
9	2022-23	II	DMC22B2S	Marine Resource Management- 2	2
10	2022-23	VI	DMC2242E	SCUBA Science	3
11	2022-23	VI	DMC22 41C	Project Work – Research Methodology	4

6. Design/Development of New Curricula and Courses

No	Description	Organization for which it was Developed	Level(PG/UG)
1	M.Sc., Marine Biology	Dept of Marine and Coastal Studies, Madurai Kamaraj University	PG
2	B.Voc., Aquaculture	Dept of Marine and Coastal Studies, Madurai Kamaraj University	UG
3	B.Voc (One year Diploma course) - Marketing of Value added products of seafood	Senthamarai College of Arts & Science, VRS Garden, Vadapalanji, Madurai	Diploma

7. Creation of ICT Mediated Teaching-Learning Pedagogy

7.1. SWAYAM / MOOCs

No	Description	Organization for which it was Developed	Level(PG/UG)
-	-	-	-
-	-	-	-

7.2. E-Contents

No	Description	Organization for which it was Developed	Level(PG/UG)
1	Google Classroom -Learning Management System (LMS)	Dept., of Marine and Coastal Studies, MKU	PG
2	Slide-based resource materials	Dept., of Marine and Coastal Studies, MKU	PG
3	Video tutorial- Mangrove Ecosystem	Dept., of Marine and Coastal Studies, MKU	PG

7.3. Development of other ICT Mediated Teaching-Learning Pedagogy

No	Description	Organization for which it was Developed	Level(PG/UG)
1.	Smart Board and e- contents	Dept of Marine and Coastal Studies, Madurai Kamaraj University	PG

8. Research Specialization / Field of Research

- Climate Change and Ocean Acidification
- Marine Natural Products and Nano Sciences

9. Research Publications

Type	International	National
Papers Published in UGC-CARE Listed Journals	46	20
Papers in Refereed Journals (Not mentioned above)		
Books Published	--	-
Books Edited	--	--
Contributions to Book Chapters	04	
Editor of Conference/Seminar Proceedings	01	01
Papers Published in Conference/Seminar Proceedings	02	10
Papers Presented in Conferences/Seminars	04	28
Conference/Seminar/Workshop Attended	04	29
Deposits in CCDC, PDB, etc. (Genbank)	60	

10. Citation Metrics

Cumulative Impact Factor (Recent Annual JCR)	
Total Citations (Scopus/Web of Science)	587
h-Index (Scopus/Web of Science)	13
g-Index (Scopus/Web of Science)	22
i10 Index (Scopus/Web of Science)	23

11. Details of Patents

12. Research Guidance/Supervision

Degree / Programme	Completed	Submitted	Ongoing
PhD (Full-time Guide)	7		1
PhD (Full-time Co-Guide)	2		
PhD (Part-time)	3		
MPhil Research Project (Full-time)	7		
MPhil Research Project (Part-time)	1		
MSc Projects/Dissertation	19		
MSc Internships/Summer or Winter Projects	2		

13. Funded Research Projects

13.1. Ongoing

No	Title of the Project	Funding Agency	Period / Duration	Total Grants Sanctioned (Rs)
1	" Study on the impact of Ocean Acidification on the Aragonite Saturation State in the Coral Reef Ecosystem of the Gulf of Mannar and Palk Bay and Mapping Blue Carbon Hotspots for harnessing Ecosystem Based Services as well as Climate Change Mitigation"	Ministry of Earth Sciences - National Centre for Coastal Research	128.21	2022-2026
2	"Fabrication of Metal Nanoparticles (MNPs) Coated Bacterial Nanowires based Impedimetric Biosensor for the Rapid Detection of Seafood Spoilage Bacteria"	RashtriyaUchcharShikshaAbhiyan, Madurai Kamaraj University (RUSA- MKU)	23.59	2020-2023

13.2 Completed

No	Title of the Project	Funding Agency	Duration and Month & Year of Completion	Total Grants Received (Rs)	No of Papers out of Project
1.	Teachers Associateship for Research Excellence (TARE): Photovoltaic evaluation of marine based photosynthetic pigments as co-sensitizer for efficient solar cell	Science and Engineering Research Board (SERB) DST, New Delhi.	18.30	2018-2021	1

	performance				
2.	Co-Principal Investigator: Assessment of the resilience potential of coral reefs and aragonite saturation state in the Gulf of Mannar towards recurrent episodes of coral bleaching	ICAR-Central Research Institute for Dryland Agriculture under Competitive Grants Component (CGC) of National Innovations in Climate Resilient Agriculture (NICRA).	35.50	2018-2021	
3.	Principal Investigator: Study on the impact of climate change included Ocean acidification process on the physiology and calcifying rate of Sea Urchins between temperate (NEW ZEALAND) and tropical (INDIA) species	India – New Zealand Education Council (INZEC)	25.00	2014-2016	1
4.	Consultancy – A Bibliographic Review - Identification and Prioritization of Research Gaps in the Palk Bay (PB), Tamil Nadu	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	06.42	Nov 2015 - Jan 2016	
5.	Principal Investigator: Investigation of Marine Seaweed Pigments as Sensitizer in Solar Cells	Science and Engineering Research Board, Technology Bhavan, New Delhi.	40.40	2013-2017	1

6.	Principal Investigator - “Synthesis of Chitosan nanoparticles from marine organisms of the Gulf of Mannar region, South India”.	University Grants Commission, New Delhi	11.08	2011 -2014	2
7.	Research Guide- Primary evaluation of Carbon Sequestration potential in Mangrove soil of Karangadu region, Ramnad District, Tamil Nadu.	Tamil Nadu State Council for Science and Technology– Student Project Scheme- 2010-2011	0.06	2010-2011	-
8.	Co-Investigator - Marine Ecotoxicology Studies	Ministry of Earth Sciences, New Delhi	113.00	2007-2012	

14. Reviewer in Journals

Name of the Journal	Publisher	No of Papers Reviewed
Biotropica	Biotropica, the official journal of the ATBC (Association for Tropical Biology and Conservation), wiley	02
Archives of Microbiology	Springer Journals	02
Regional Studies in Marine Science	Elsevier	04
Journal of Food Science and Technology	Springer Journals	03
Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	Elsevier	02
Geomicrobiology	Taylor and Francis	02
Indian Journal of Geo-Marine Sciences (IJMS)	CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR)	14

15. Research Collaborations

Name of the Collaborator	Institute	Collaboration Details
Professor Mary A. Sewell	University of Auckland, New Zealand	UGC- INZEC Research Project Collaboration
Professor Dr. Sundara Ramaprabhu	Indian Institute of Technology	INSA Visiting Fellow
Professor Dr.S.Anandhan	NIT, Trichy	Teachers Associateship for Research Excellence -TARE
Professor Dr. S. Ravikumar	Alagappa University	Research Collaboration: Research Paper Publications; Collaborative Research Projects and Extension activities
Dr. G. Maduraiveeran	SRM University, Chennai	Research Paper Publications
Dr. P. Santhanam	Bharathidasan University	Research Paper Publications Collaborative Research Projects and Extension activities
Dr. Ji-Ming Song	Anhui University, China	Research Paper Publications
Alejandra Vidales Carmona	FONDECYT, Chile.	Research Paper Publications
Dr. M. Maruthupandy	Dong- A University, South Korea	Research Paper Publications
Prof. Dr. P. Chellapandi	Bharathidasan University	Research Paper Publications and Research collaboration
Dr.P. Shanmuganandam	Director, Galaxy Biolabs, Madurai	Industry- Academy collaboration
Dr. N. Marimuthu	Scientist E & Officer In-charge, Gen. Non- Chordata Section, Zoological Survey of India, Kolkata	Students Research Project and Internship
Dr. K. Anoop Krishnan	Scientist E, Biogeochemistry Group, National Centre for Earth Science Studies, Akkulam, Thiruvananthapuram	Students Research Project and Internship
Dr. P. Sriyutha Murthy Scientific Officer F	Bhabha Atomic Research Centre, Indira Gandhi Centre for Atomic Research Kalpakkam	Students Research Project and Internship
Dr. Hiren M Joshi Scientific Officer E	Bhabha Atomic Research Centre, Indira Gandhi Centre for Atomic Research Kalpakkam	Students Research Project and Internship

Dr. Sudhir Kumar Sukhla Scientific Officer E	Bhabha Atomic Research Centre, Indira Gandhi Centre for Atomic Research Kalpakkam	Students Research Project and Internship
Mr. K. Senthil kumar, Quality Control Laboratory Supervisor,	Microbiology Division, Seafood Processing, Kader Investment Trading Company (KITCO) Thoothukudi	Students Research Project and Internship

16. Countries Visited

Name of the Country	Period	Purpose
New Zealand	March-2015	INZEC- UGC Collaborative Project discussion - University of Auckland
New Zealand	February-2016	INZEC- UGC Collaborative Project discussion- University of Auckland; Pacific Climate Change Conference- Victoria University of Wellington
The National University of Singapore	November-2019	International Conference on Science & Technology Research

17. Honours / Awards / Recognitions

Name of the Honours / Awards / Recognition	Awarding Agency	International / National / State / Institute Level
“Young Investigator Award - 2012” for scientific investigation.	M. D. T.	National
Best Environment Campaigner Award 2015.	KTSTM Trust	National
“Excellence and Innovation Award - 2016”	Pearl Foundation	National
INSA Visiting Scientist Fellowship for 2017-2018 – Host Institute IIT, Chennai.	INSA	National
Teachers Associateship for Research Excellence (TARE) Award 2018- 2021– SERB – Host Institute NIT, Tiruchirapalli.	SERB	National
Dr. A. P. J. Abdul Kalam Best Scientist and Distinguished Fellow Award- 2020 – Bose Science Society, Tamilnadu Scientific Research Organisation, Pudukkottai -2020	Tamil Nadu Scientific Research Organisation, Pudukkottai	National

18. Conferences / Seminars / Workshops Organized

Level	Conference Title	Date(s)	Place	Role Played	Funding
National	National Workshop on Ocean Acidification Research, NWOAR-2012	12.12.2012-14.12.2012	Madurai Kamaraj University, Madurai	Organizing Secretary	DST, DBT, DRDO, CSIR, ICSSR and UGC
National	National Workshop on Ocean Acidification Research, NWOAR-2015	25.02.2015-27.02.2015	Madurai Kamaraj University, Madurai	Organizing Secretary	UGC-INZEC
International	“International Conference on Ocean Acidification Research, ICOAR-2015”	15.12.2015-17.12.2015	Madurai Kamaraj University, Madurai.	Organizing Secretary	UGC-INZEC

19. Invited Lectures / Resource Person

No	Institute / Organizer	Name of the Conference / Seminar / Workshop	International / National / State / Institute Level	Date(s)
1	Nadar Mahajana Sangam S. Vellaichamy Nadar College, Madurai, Tamil Nadu, India.	On the event of special lecture- Department of Zoology Association celebrations	National	18.02.2011
2	Department of Marine Science, Bharathidasan University, Tamil Nadu, India	National Seminar on Coastal Typology	National	17.03.2011
3	CAS in Marine Biology, Annamalai University	National Conference on Aquatic Biotoxins-2011, 14th -16th September	National	16.10.2011
4	CAS in Marine Biology, Annamalai University	DBT Sponsored Workshop on Marine Fish Immunology and Bioinformatics, 1 st to 8 th December 2011	National	07.12.2011
5	MDT Hindu college, Tirunelveli	International Conference on Environmental Security for Food and Health, 16 - 18 February 2012	International	17.02.2012
6	Department of Environment Science, Bharathiar University, Coimbatore	Science Academies Lecture Workshop on Carbon Sequestration in Mitigation of Global Warming “SW-CMGW 2012”.	National	20.03.2012

7	CAS in Marine Biology, Annamalai University	National Conference on Marine Fish, Shellfish Immunology and Immunotechnology -30th and 31st March 2012	National	31.03.2012
8	Department of Zoology, Fatima College (Autonomous), Madurai-18	State level Seminar – “Environmental Sustainability: Issues & Challenges”.	State level	11.10.2012
9	Department of Biochemistry and Biotechnology, Annamalai University.	“International Conference on Phytochemicals in Health and Disease (ICPHD-13)”23 - 25 January 2013	International	24.01.2013
10	Department of Biochemistry, Rev. Jacob Memorial Christian College, Ambilikkai	Proteofest 2013	National	01.01.2013
11	Post-graduate and Research Department of Zoology, Ayya Nadar Janaki Ammal College (Autonomous), Sivakasi.	State Level Students’ Seminar on Alternate Energy Resources”.	State level	14.02.2013
12	Dept., of Zoology, Arulmigu Palaniandavar College of Arts and Culture, Palani.	State Level Seminar on “Renewable Energy and Their Conservation With Special Reference to Biotechnology”	State level	12.03.2013
13	School of Energy Sciences & Academic Staff College, Madurai Kamaraj University.	Refresher Course in Environmental Studies	National	16.03.2013
14	School of Energy Sciences & Academic Staff College, Madurai Kamaraj University.	Refresher Course in Environmental Studies	National	18.03.2013
15	Wildlife Warden, Gulf of Mannar Marine National Park, Ramanathapuram.	One day training program on “Dugong & Turtle Conservation”	National	23.12.2013
16	T.W.A.D Board Sub Training Centre, Madurai-625007.	Training program on “Water Security and Sustainability and Geospatial Technology	State level	26.08.2014

17	T.W.A.D Board Sub Training Centre, Madurai	Training program on “Water Security and Sustainability and Geospatial Technology	State level	16.09.2014
18	Mohamed Sathak Polytechnic College, Kilakarai	Faculty Development Programme (FDP) at Mohamed Sathak Polytechnic College	National	17.02.2015
19	Department of Botany, Rani Anna Government College for Women, Tirunelveli.	National Level Seminar on Coastal and Marine Ecosystems – Challenges and Opportunities	National	13.03.2015
20	CAS in Marine Biology, Faculty of Marine Sciences, Annamalai University	Marine Academy and Research Consortium (MARC) – Lecture series	National	31.08.2015
21	T.W.A.D Board Sub Training Centre, Madurai	Training program on “Water Security, Sustainability, Geo Spatial Technology And Source Augmentation In Existing CWSS Using GIS Techniques”	State level	07.01.2016
22	T.W.A.D Board Sub Training Centre, Madurai	Training program on “Recycle and Reuse of Waste Water”	State level	29.01.2016
23	Department of Marine Science, Bharathidasan University	National workshop cum training on “Toxic Heavy Metals in Environmental & Seafood samples using AAS (THEMES 2016)	National	05.02.2016
24	Dept., of Zoology, American College, Madurai.	Department special lecture -Dept., of Zoology	Institute	11.03.2016
25	Sethupathy Government Arts and Science College	Special lecture - Sethupathy Government Arts and Science College	Institute	16.03.2016
26	Dept., of Chemistry, All Saints’ College, Trivandrum.	National Seminar on Photonics, Medicine and the Environment NSPME-2016	National	23.06.2016
27	Department of Chemistry, Velammal College of Engineering & Technology, Viraganoor, Madurai	Inauguration of ECO Club, Department of Chemistry, Velammal College of Engineering & Technology	Institute	28.07.2016
28	Centre of Advanced Study in Marine Biology, Faculty of Marine Sciences, Annamalai University	National Conference on Immune Response of Marine Fishes With Respect To Heavy Metal Pollution	National	05.08.2016

29	Department of Microbiology and Biotechnology, Thassim Beevi Abdul Kader College for Women, Kilakarai	Department Science club activities	Institute	17.08.2016
30	Caussanel college of Arts and Science, Angelo Nagar, Muthupettai, Ramnad	College special lecture	Institute	24.08.2016
31	Syed Hameedha Arts and Science College, Kilakarai, Ramanathapuram District	Department special lecture	Institute	01.09.2016
32	Department of Marine Science, Bharathidasan University	National workshop on “Climate change impact on the Marine Environment (CCIME – 2017)” February 2-3, 2017	National	03.02.2017
33	NRCBS Training Programme, Madurai Kamaraj University, Madurai	Invited Lecture: Ocean acidification on the event of training program Organized by NRCBS Training Programme	National	12.03.2017
34	Dhan Foundation as part of Madurai symposium	Invited Lecture: “The impact of climate change and ocean acidification on coastal and marine resources” on the event of conservation of coastal and marine resources workshop	National	21.09.2017
35	Department of Zoology, M.S.S Wakf Board College, Madurai	Department Science club activities	Institute	5 March, 2018
36	Department of Biotechnology and Botany, Sri Kaliswari College, Sivakasi	Biovision event organized by the department	Institute	19.09.2018
37	Department of Zoology, Syed Ammal Arts and Science College, Ramanathapuram District	National Seminar on Marine Fisheries and Aquaculture	National	20.09.2018
39	Department of Microbiology & Biotechnology, Thassim Beevi Abdul Kader College for Women, Kilakarai	Department special lecture	Institute	26.09.2018

40	Department of Biotechnology, Sri Sankara Arts and Science College, Kanchipuram	Invited Lecture: “Omics- as a tool to study Marine Ecosystem” on the event of National Conference on Applications of Computational Biology in Omics (11 th and 12 th October, 2018)	National	12.10.2018
41	Faculty of Arts Science and Humanities) Karpagam Academy of Higher Education, (<i>Deemed to be University, Established Under Section 3 of UGC Act 1956</i>), Pollachi Main Road, Eachanari Post, Coimbatore – 641021	National Seminar on “Food Safety and Security”	National	19.12.2018
42	Syed Ammal Arts and Science college, Ramanathapuram	Special Lecture: “Recent trends and career in Marine Sciences”	National	27 th February, 2019
43	The Madura College, Madurai	Special Lecture: “ Recent trends and career in Marine Sciences”	National	6 th March, 2019
44	Rani Anna Govt. College for Women, Tirunelveli	National Conference on ‘Bio-prospecting of Bioresources from Sea’ sponsored by Ministry of Earth Science (MoES), Government of India	National	07 and 08, March 2019
45	ICAR-National Bureau of Fish Genetic Resources (ICAR-NBFGR) workshop on Genetic resources - conducted in the Dept. of Marine sciences at Pudumadam, Ramnad	Invited Lecture: “Impacts of climate change in marine life” on the event of awareness programme on “Marine Biodiversity Conservation (Special focus, fish genetic resources) and utility of aquaculture as alternative livelihood option for the fishers in the Gulf of Mannar region”	National	17 and 18, June 2019
46	CAS Marine Biology, Annamalai University, Parangipettai	“ Immunological tools for monitoring and assessment of the	National	21-23, August 2019

		impact of ocean acidification” on the event International Conference on Current Immunological Tools for Biodiversity and status of environment health sponsored by Indian Council of Social Science Research (ICSSR		
47	Kavignar Ramalingam Government Arts and Science College for Women, Namakkal	Invited Lecture: “Impact of Climage on Marine Biodiversity” on the event of National Workshop on “Emerging Trends in Biodiversity Conservation”	National	12 th and 13 th September
48	Department of Biochemistry, Rev. Jacob Memorial Christian College, Ambilikkai.	Invited Lecture: “Inventive Investigations in Marine and Ecological Sciences” on the event of National Conference on Innovations in chemical and life sciences research, Proteofest – 2020	National	7 th February 2020
49	A.P.C. Mahalaxmi College for Women Ettayapuram Road, Thoothukudi	Invited Lecture: “Recent Trends in Climate Change and Marine Environment” on the event of International Conference on "Recent Trends in Multi-Disciplinary Research	National	27th & 28th February – 2020
50	Pushkaram College of Agriculture Sciences	Chief Guest-Validictory Address-National Youth Science Conference for Sustainable	National	28th February 2020

		Development & 10th Annual Awards Presentation Ceremony 2020		
51	Rajah Serfoji Govt College(Autonomous), Thanjavur.	Invited Lecture: "Challenges in Marine Ecosystem and Research" on the event of National Seminar on Current Approaches and Challenges in Biosciences and Research	National	5 th March 2020
52	Sree Narayana Guru College, K.G. Chavadi, Coimbatore.	Invited Lecture Webinar: "Marine Natural Products- A Potential Source of Drug Molecules" on the event of the Two day National level Webinar - Recent Trends in Biological Sciences	National	21 st May 2020
53	Rabiammal Ahamed Maideen College for Women	Invited Lecture Webinar: "An Introduction to Marine Biochemistry	National	30 th June 2020.
54	Dr.Ambedkar Government Arts College (Autonomous) Vysarpadi, Chennai	Invited Lecture Webinar: "Impact of Ocean Acidification and Climate Change on Marine Biodiversity"	National	29-07-2020 to 31-07-2020.
55	Madurai Kamaraj University and INTERNEWS Network, USA.	Invited Lecture Webinar: "Pollution – Bay of Bengal Resource and Protection" on, 2-Day Online Training Programme on Climate Change, Bay of Bengal for Mediaperson	National	12-13, 19-20 and 26-27 September
56	Bharathidasan University	Invited Lecture Webinar: "Impact of Microplastics on	National	25 th November 2020.

		Marine Molluscs” on National Webinar on Microplastics in the Marine Environment (MIME - 2020)		
57	Bharathiyar University,	Invited Lecture Webinar: “Ornamental Fish Culture Current Status and Prospects	National	18.02.2021
58	Madurai Kamaraj University	Invited Lecture:Fourth Online Faculty Induction Programme “Climate Change and Marine Bio Diversity	National	11.03.2021
59	Madurai Kamaraj University	Invited Lecture:Fourth Online Faculty Induction Programme “Climate Change and Marine Bio Diversity”	National	16.03.2021
60	Madurai Kamaraj University	Invited Lecture:Fifth Online Faculty Induction Programme “Marine Eco System and Climate Change”	National	25.09.2021
61	Agricultural college and Research Institute, Madurai	Invited Lecture:”Integrated Approach in Science and Technology for a Sustainable Future” on the event of National science day	National	28.02.2022
62	Srimad Andavan Arts and Science College	Invited Lecture: “Current status of ocean acidification research in India” on the event of National Seminar on Socio Economic impacts of pollution in marine environment with respect to ocean acidification (SEIPME - 2022)	National	27.07.2022

20. Professional Development Programs / Faculty Development Programs Organized

Name of the Program	Role	Place	Date(s)	Funds in Rs & Sponsor
Refresher courses	Deputy coordinator	Madurai Kamaraj University	10.03.2021-23.03.2021	UGC MHRD

21. Professional Development Programs / Faculty Development Programs Attended

Name of the Program	Place	Date(s)	Sponsor
UGC –Sponsored Online Short Term Course on Massive Open Online Course (MOOCS)	UGC Human Resource Development Centre, Madurai Kamaraj University	07.03.2022 to 13.03.2022.	
ICAR-APAARI “Regional Capacity Building Program on Biotechnological Tools in Aquatic Genetic Resource Management and Ex-Situ Conservation”	ICAR-National Bureau of Fish Genetic Resources, Lucknow, India.	December 07-18, 2020	
Refresher Course in Teacher Education (Theme: Professional Learning and Development)	UGC Human Resource Development Centre, Madurai Kamaraj University	06.12.2019 and 19.12.2019	
ICAR Short course on “Application of Advanced Molecular Methods in Marine Fishery Resource Management, Conservation and Sustainable Mariculture”	Central Marine Fisheries Research Institute (CMFRI) Kochi, Kerala	24.10.2018 to 02.11.2018,	ICAR Sponsored
Regional Training programme for Nominees of CPCSEA	Madras Veterinary College, Chennai	19.07.2018 and 20.07.2018	(MoEF Sponsored)
Training Programme on Yoga for Holistic Life Course in centre for Educational Research	Madurai kamaraj University, Madurai and the world community service centre temple of consciousness, Aliyur	18.04.2017 to 23.04.20	
Refresher Course in Ecology and Environmental studies (Multi - Disciplinary)	UGC- HRDC, Academic Staff College, Madurai Kamaraj University	02.11.2016 and 22.11.2016	
Training Programme for CPCSEA (Committee for the Purpose of Control and Supervision of Experiments on Animals)	National Institute of Animal Welfare, Ballabgarh, Faridabad, Haryana	07th and 015 September 2015	Ministry of Environment Forest and Climate Change

Training Programme on Biodiversity of Marine Flora	Centre of Advanced study in Marine Biology, Annamalai University, Parangipettai.	19th and 20th March 2014	Ministry of Human Resource Development
Refresher Course in Life Sciences between	UGC – Academic Staff College, Madurai Kamaraj University	07.11.2013 and 27.11.2013	
Training Programme On “Seed Production And Larval Rearing Of Asian Seabass (<i>Lates calcarifer</i>)”	Central Institute of Brackishwater Aquaculture (CIBA), Chennai	15 th Oct 2012 and 19 th Oct 2012 (5 day)	National Fisheries Development Board (NFDB)
DST-NRDMS Sponsored Summer Training Programme on Geospatial Technologies and Applications	Department of Future Studies, School of Energy Environment and Natural Resources, Madurai Kamaraj University, Madurai	between 08 th May and 28 th May 2012	
Refresher Course Interdisciplinary Nanosciences (III batch)	UGC – Academic Staff College, University of Madras	between 08.11.2011 and 28.11.2011	
Orientation Course 61	UGC – Academic Staff College, Madurai Kamaraj University	12.05.11 and 08.06.11	
Ground-Water Management Training..	Government of India, Ministry of Water Resources South Eastern Coastal Region Central Ground Water Board	date: 6 th & 7 th January 2011.	
Marine Ornamental Fish Culture.	National Fisheries Development Board Govt. of India, Hyderabad and Regional centre of CMFRI, Mandapam.	Date 6 th – 15 th Dec., 2010	
Remote Sensing and GIS for Environmental Monitoring - “Photogrammetry Applications. RO	IRS – Anna University, Chennai.	Dated 18 th May to 26 th June 2009	

Marine Ecotoxicology.	Ministry of Earth Sciences, ICMAM, National Institute of Ocean Technology.	14th to 21st May 2008	
International workshop – Taxonomy & Ecology of Harmful algae & biotoxins.	UNESCO KVAFSU, College of Fisheries, Mangalore.	21-25, January, 2008	
28 days Orientation Course – Batch – 79,	UGC – Academic Staff College, University of Madras	2007	
Image Analyst,	GeoMedia Professional. Rolta India Limited, Mumbai.	2007	
Bay of Bengal Biogeographic Information System (BoBIS).	Centre of Advanced study in Marine Biology, Annamalai University	2007	
International Workshop on Capacity Building in Integrated Coastal Management.	Institute of Ocean Management, Anna University, Chennai	2007	
Aquatic Animal Toxins and Pharmacological Bioresources.	Central Institute of Fishery Education, Mumbai	2003	
Geographical Information System.	Technical Teachers Training Institute, Taramani, Chennai	2001	
Seaweed Culture and Utilisation.	Regional centre of CMFRI, Mandapam	2000	
Identification of Flora and Fauna in Mangrove Ecosystem.	Centre of Advanced study in Marine Biology, Annamalai University, Parangipettai,	2000	
Breeding and Culture of Ornamental Fishes.	Central Institute of Freshwater Aquaculture	2000	Indian Council of Agricultural Research (ICAR), New Delhi

22. Administrative Experiences

Role Played	Responsibilities	Period (from ... to)
Team In-charge	Administrative and development activities of the Department of Marine and Coastal Studies, Madurai Kamaraj University	16.07.2014 - 23.07.2017
Teacher Counsellor	Student counselling and value education to the students of School of Energy, Environment and Natural Resources, Madurai Kamaraj University	26.08.2019 – till date
Head	Administrative and development activities of the Department of Marine and Coastal Studies, Madurai Kamaraj University	11.01.2020 – till date

23. Membership in Academic Bodies

Name of the University / Institute / College	Type of Membership	Duration / Period
Department of Marine Science, Bharathidasan University, India	Doctoral Committee Member	Assigned period
Dept. of Oceanography and CAS, Alagappa University, India	Doctoral Committee Member	Assigned period
Dept. of Zoology, Dr. Zahir Hussain College, Illayangudi, Alagappa University, India	Doctoral Committee Member	Assigned period
School of Biosciences and Technology, VIT University, Vellore 632 014., India	Doctoral Committee Member	Assigned period
CSIR- National Institute of Oceanography- Regional Centre Kochi- 632 018, India (Affiliated to Bharathidasan University).	Doctoral Committee Member	Assigned period
CMJ University, Mehalaya	Doctoral Committee Member	Assigned period
CAS in Marine Biology, Parangipettai, Annamalai University.	Doctoral Committee Member	Assigned period
CD & DC Member- B.Sc., Marine Biology, Alagappa University, India, 2022-23 to 2024-25.	Doctoral Committee Member	Assigned period
External subject expert: Noorul Islam Centre for Higher Education, Kanyakumari.	Doctoral Committee Member	Assigned period
Manonmaniam Sundaranar University, Tirunelveli	Member to the Senate	11.09.2013 – 11.09.2016

Tamil Nadu Scientific Research Organization (TNSRO)	BSS FELLOW membership-	2019
St. Mary's College, (Autonomous) Thoothukudi.	Member of Academic Council	
Sarah Tucker College, (Autonomous), Tirunelveli.	Member of Academic Council	
Virudhunagar Hindu Nadar's Senthikumara Nadar College (Autonomous).	University Nominee in B. Voc. Environmental Assessment and Remediation	
School of Biosciences and Technology, VIT University, Vellore 632 014, India	External examiner Ph D., <i>Viva voce</i>	Assigned period
CAS in Marine Biology, Annamalai University, India	External examiner Ph D., <i>Viva voce</i>	Assigned period
Animal Biotechnology, Bharathidasan University, Trichy.	External examiner M.Phil., <i>Viva voce</i>	Assigned period
Alagappa University, Karaikudi, India	External examiner M.Sc., Biomedical Sciences Practical Examinations and Theory Valuation,	Assigned period
Madurai Kamaraj University, India	Member: Documentation committee National Assessment and Accreditation Council (NAAC)	2014
Directorate of Distance Education, Madurai Kamaraj University	Lesson Writer for Study Materials preparation 1. Diploma In Pisciculture and 2. M.Sc., Zoology (Fisheries & Aquaculture and Practical Lessons	
Manonmanium Sundaranar University, Tirunelveli.	Flying Squad Member for the DD & CE	November 2013 examinations
Manonmanium Sundaranar University, Tirunelveli.	Inspection Commission Member: Renewal of Study Centre DD & CE	
Nethaji Snake Trust, Usillampatti	Member Scientific Advisory Board	
Committee for the Purpose of Control And Supervision of Experiments on Animals (CPCSEA)	Nominee	Since 2015 - Till date
Tirunelveli Medical College & Hospital , Tirunelveli, Tamil Nadu, India.	CPCSEANominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
National College, Dindigul Road, Karumandapam Trichy, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Mother Teresa University, Kodaikanal, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period

Government Sivagangai Medical College, Thondi, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Anna University, BIT Campus, Trichy, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Alagappa University, Karaikudi, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Government Thoothukudi Medical College, Thoothukudi, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Holy Cross College (Autonomous), Tiruchirappalli, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Government Theni Medical College, Theni, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
K.M. College of Pharmacy, Melur Road, Uthangudi, Madurai, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Sri Kaliswari College (Autonomous), A. Meenakshipuram, Virudhunagar Main Road, Analkuttam (post), Sivakasi, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Arulmigu Kalasalingam College of Pharmacy, Krishnankoil, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Periyar College of Pharmaceuticals Science for Girls, Periyar Nagar, Santhanoor Main Road, Trichy – 620021, Tamil Nadu.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Dhanalakshmi Srinivasan Medical College & Hospital, Perambalur, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Srimad Andavan Arts and Science College, No. 7, Nelson Road, Tiruvanai Kovil, Tiruchurapalli – 620005, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
Madurai Medical College, Madurai, Tamil Nadu, India.	CPCSEA Nominee IAEC Member (Institutional Animal Ethics Committee)	Assigned period
D.Voc course – Diploma programmes under UGC National Skill Qualification Framework (Senthamarai College, Madurai, India)	Board of Studies	
Wash Institute –PG diploma in Non-Sewered Sanitation & PG Diploma in	Board of Studies	

water and waster water quality		
CMFRI	subject expert (external) SRF interview – DBT sponsored project at CMFRI	Assigned period
District Advisory Committee – Madurai District,	Member - Ocean Science.	
Sri S. Ramasamy Naidu Memorial College, Satur.	Vice – Chancellor’s Nominee for selection of Assistant Professor	
E.M.G. Yadava Women’s College, Madurai.	Vice – Chancellor’s Nominee for selection of Assistant Professor	
Madurai Kamaraj University, Madurai	Question Setter-National Level Online Entrance Test for Admissions to M.Sc., Marine Biology	(2022-2023)
The American College, Madurai.	Subject Expert :B.B.A Maritime Logistics	(2020-2021)
Madurai Kamaraj University, Madurai	Deputy Coordinator in the event of Refresher Course in Environmental Studies-Human Resource Development Centre in association with School of Energy, Environment and Natural Resources	10.03.2021 - 23.03.2021
VHNS College, Virudhunagar	University Nominee in the B.Voc programme on Environmental Assessment and remediation	18.07.2022 - 17.07.2025.
Bharathidasan University, Tiruchirappalli.	Question Setter:I.M.Sc., MICROBIOLOGY-semester examination	Apr-May.2022
–Syed Ammal Arts and Science College, Ramanathapuram	External expert:Academic Audit	2021-2022
Madurai Kamaraj University.	Member : National Institutional Ranking Framework (NIRF) Committee	2020- till date
Madurai Kamaraj University	Invigilator:Common Entrance Test for admission to M.Phil/Ph.D-On-line Test	2021-22
Madurai Kamaraj University.	Member:Expert Committee to prepare the Professional English BOOK III and IV semester for life science stream	
Akilika Herbal Institution, Palani for the period	Representative of the University(MKU) in the Managing Committee	01.04.2021 - 31.03.2023.
Madurai Kamaraj University.	Selection Committee Member:RUSA project selection	Assigned period
The American College, Madurai.	Inspection Commissioner:UGC-National Skills Qualification Framework-B.VOC &M.VOC	(2021-2022)

	courses	
Madurai Kamaraj University.	Deputy Co-ordinator :UGC-Human Resource Development Centre,on-line Refresher Course in Environmental Studies (MD)	10.03.2021 to 23.03.2021
Madurai Kamaraj University.	Member:BoS PG.Diploma in Non-Seawered Sanitation	
Mandapam Regional Centre of CMFRI.	Selection committee-SRF-DBT Project	
Senthamarai College of Arts and Science, Madurai.	Inspection member: UGC-National Skills Qualification Framework-Skill development Diploma Course Inspection Commission	
E.M.G. Yadava Women's College, Madurai.	Selection committee member: Post of Assistant Professor	
Annamalai University, Annamalai Nagar.	Ph.D thesis evaluator :Marine Biology & Oceanography	2022
Annamalai University, Annamalai Nagar.	Ph.D thesis evaluator :Marine Biology	2020
Sri Kaliswari College (Autonomous), A. Meenakshipuram, Virudhunagar Main Road, Analkuttam (post), Sivakasi, Tamil Nadu, India	Institutional Animal Ethical Committee member	Assigned period
Maduari Medical College, Madurai	Member:The Animal Ethical Committee	Assigned period
Sri Kaliswari College (Autonomous Sivakasi, Tamil Nadu, India	Institutional Animal Ethical Committee member	Assigned period
Annamalai University, Annamalai Nagar.	Indian Member & Member:Ph.D, Viva-Voce Examination Board	Assigned period
Madurai Kamaraj University.	Expert Committee Member:PG Diploma in Water and Wastewater Quality Management	

24. Membership in Recognised Professional Bodies

Name of the Professional Body	International / National	Type of Membership
Marine Biological Association of India (MBAI) Kochi.	International	Life member
The International Society for Environmental Information Sciences (ISEIS). Canada.	International	Life member
International Union for Conservation of Nature (IUCN), Commission on Ecosystem Management, CCA (Climate	International	Life member

Change Adaptation) Thematic Group. Switzerland.		
The Indian Science Congress Association ISCA (L27003) Kolkata.	National	Life member
BSS FELLOW membership-Tamil Nadu Scientific Research Organization (TNSRO)	National	Life member
Ocean Society of India	National	Life member

25. Languages Known

Languages	Read	Write	Speak
Tamil	Yes	Yes	Yes
English	Yes	Yes	Yes
Hindi	Yes	Yes	No

26. Competence in Computer Applications: Competent to handling academic and research s/w and applications.

27. Involvement in Extension Activities other than Academic Works

- 1. Programme Coordinator (2013)** “Beach Cleanliness in the Gulf of Mannar and Palk Bay region - On the event of International Coastal Cleanup Day, (ICC-GOM&PB)” conducted by the Marine Research Facility of Madurai Kamaraj University, Pudhumadam, in collaboration with District Environmental Co-ordinator, Chief Educational Office, Ramanathapuram District on 21.09.2013.
- 2. Programme Coordinator (2014)** “Beach Cleanliness in the Seeniappa Dhargah, Gulf of Mannar region - On the event of International Coastal Cleanup Day, (ICCD-2014) conducted by the Department of Marine and Coastal Studies, Marine Field Research Facility of Madurai Kamaraj University, Pudhumadam, Ramanathapuram District on 20.09.2014.
- 3. Programme Coordinator (2015)** “Beach Cleanliness in the Seeniappa Dhargah, Gulf of Mannar region - On the event of International Coastal Cleanup Day, (ICCD-2015) conducted by the Department of Marine and Coastal Studies, Marine Field Research Facility of Madurai Kamaraj University, Pudhumadam, Ramanathapuram District on 19.09.2015.
- 4. Programme Coordinator (2016)** “Beach Cleanliness in the Seeniappa Dhargah, Gulf of Mannar region - On the event of International Coastal Cleanup Day, (ICCD-2016) conducted by the Department of Marine and Coastal Studies, Marine Field Research Facility of Madurai Kamaraj University, Pudhumadam, Ramanathapuram District on 17.09.2016.
- 5. Programme Coordinator (2017)** “Beach Cleanliness in the Gulf of Mannar and Palk Bay region - On the event of International Coastal Cleanup Day, (ICCD-2017)” conducted by the Marine Research Facility of Madurai Kamaraj University, Pudhumadam, Ramanathapuram District on 16.09.2017.
- 6. Programme Coordinator (2018)** “Beach Cleanliness in the Seeniappa Dhargah, Gulf of Mannar region - On the event of International Coastal Cleanup Day, (ICCD-2018)

conducted by the Department of Marine and Coastal Studies, Marine Field Research Facility of Madurai Kamaraj University, Pudhumadam, Ramanathapuram District on 15.09.2018.

- 7. Programme Coordinator (2019)** “Beach Cleanliness in the Seeniappa Dhargah, Gulf of Mannar region - On the event of International Coastal Cleanup Day, (ICCD-2019) conducted by the Department of Marine and Coastal Studies, Marine Field Research Facility of Madurai Kamaraj University, Pudhumadam, Ramanathapuram District on 21.09.2019.
- 8. Programme Coordinator (2020)** Online webinar on “Beach Cleanliness in the Seeniappa Dhargah, Gulf of Mannar region - On the event of International Coastal Cleanup Day, (ICCD-2020) conducted by the Department of Marine and Coastal Studies, Madurai Kamaraj University, Madurai – 625021 on 19.09.2020.
- 9. Programme Coordinator (2021) Online webinar on** “Beach Cleanliness in the Gulf of Mannar and Palk Bay region - On the event of International Coastal Cleanup Day, (ICCD-2021)” conducted by the Department of Marine and Coastal Studies, Madurai Kamaraj University, Madurai – 625021 on 18.09.2021.
- 10. Programme Coordinator (2022)** “Beach Cleanliness in the Seeniappa Dhargah, Gulf of Mannar region - On the event of International Coastal Cleanup Day, (ICCD-2022) conducted by the Department of Marine and Coastal Studies, Marine Field Research Facility of Madurai Kamaraj University, Pudhumadam, Ramanathapuram District on 17.09.2022.

28. Any Other Relevant Information

Details of Publications

1. Books Published

2. Books Edited

3. Contribution to Book Chapters

4. Editor of Conference/Seminar Proceedings

1. M. Anand and R. Jeeva Priya (eds). Workshop manual on Ocean Acidification Research. Published on the event of National Workshop on Ocean Acidification Research OAR-2012 held between 12-14 December 2012 in the Department of Marine and Coastal Studies, School of Energy Sciences, Madurai Kamaraj University.
2. Anand, M (Ed) (2015). Proceedings of the National Workshop on Ocean Acidification Research (NWOAR 2015), 25-27th February 2015. Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai – 625 021, Tamil Nadu, India (138 pp).
3. Anand, M (Ed) (2015). Conference Proceedings of the International Conference on Ocean Acidification Research (ICOAR 2015), 15-17th December 2015. Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai – 625 021, Tamil Nadu, India (108 pp).
4. Anand, M (Ed) (2015). Conference Abstracts of the International Conference on Ocean Acidification Research (ICOAR 2015), 15-17th December 2015. Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai – 625 021, Tamil Nadu, India.

5. Research Publications

5.1. UGC-CARE Listed Journals, .

1. Anand, M., Suresh, S., Anandan, S., Ahalya, G., Padmapriya, S., & Rangesh, K. (2022). Photovoltaic performance of Gracilaria corticata seaweed extract as sensitizer in dye-sensitized solar cell. *Journal of Optics*, 1-10.
2. Maruthupandy, Muthuchamy & Thillaichidambaram, Muneeswaran & Chackaravarthi, Gnanasekaran & Vennila, T. & **Anand, Muthusamy** & Cho, Wan-Seob & Quero, Franck. (2022). Synthesis of chitosan/SnO₂ nanocomposites by chemical precipitation for enhanced visible light photocatalytic degradation efficiency of congo red and rhodamine-B dye molecules. *Journal of Photochemistry and Photobiology A: Chemistry*. 430. 10.1016/j.jphotochem.2022.113972. (IF: 4.291).

3. Maruthupandy, Muthuchamy & Thillaichidambaram, Muneeswaran & Vennila, T. & Vaishali, C.V. & Anand, Muthusamy & Cho, Wan-Seob & Quero, Franck. (2022). Photocatalytic efficiency of graphene/nickel oxide nanocomposites towards the degradation of anionic and cationic dye molecules under visible light. *Journal of Photochemistry and Photobiology A: Chemistry*, 427, 10.1016/j.jphotochem.2022.113819. **(IF: 4.291)**.
4. Muthuchamy Maruthupandy, Thillaichidambaram Muneeswaran, Gnanasekaran Chackaravarthi, Thirumalaiswamy Vennila, Muthusamy Anand, Wan-Seob Cho, Franck Quero, Development of hexagonal ZnO nanodisks for potential catalytic reduction of p-nitrophenol, *Materials Chemistry and Physics*, 285,2022,126145, <https://doi.org/10.1016/j.matchemphys.2022.126145>. **(IF: 4.094)**.
5. Maruthupandy, M., Muneeswaran, T., Vennila, T., Anand, M., Cho, W. S., & Quero, F. (2022). Development of chitosan decorated Fe₃O₄ nanospheres for potential enhancement of photocatalytic degradation of Congo red dye molecules. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 267, 120511. **(IF: 4.098)**.
6. Maruthupandy, M., Rajivgandhi, G., Muneeswaran, T., Anand, M., & Quero, F. (2021). Highly efficient antibacterial activity of graphene/chitosan/magnetite nanocomposites against ESBL-producing *Pseudomonas aeruginosa* and *Klebsiella pneumoniae*. *Colloids and Surfaces B: Biointerfaces*, 202, 111690. **(IF: 5.268)**
7. Maruthupandy, M., Muneeswaran, T., Anand, M., & Quero, F. (2020). Highly efficient multifunctional graphene/chitosan/magnetite nanocomposites for photocatalytic degradation of important dye molecules. *International Journal of Biological Macromolecules*, 153, 736-746 **(IF: 6.953)**
8. Muthuchamy, M., Muneeswaran, T., Rajivgandhi, G., Franck, Q., Muthusamy, A., & Ji-Ming, S. (2020). Biologically synthesized copper and zinc oxide nanoparticles for important biomolecules detection and antimicrobial applications. *Materials Today Communications*, 22, 100766. **(IF: 3.383)**
9. Muthuchamy Maruthupandy, Darlyn Riquelme, Govindan Rajivgandhim Thillaichidambaram Muneeswaran, Wan-Seob Cho, Muthusamy Anand, Natesan Manoharan and Franck Quero. 2021. Dual-role of graphene/bacterial cellulose/magnetite nanocomposites as highly effective antibacterial agent and visible-light-driven photocatalyst, *Journal of Environmental Chemical Engineering*, Vol. 9 (5), 2021, <https://doi.org/10.1016/j.jece.2021.106014>, SCI indexed Journal **(IF: 5.909)**.
10. Anand, M., Rangesh, K., Maruthupandy, M., Jayanthi, G., Rajeswari, B. & Priya, R.J., 2021. Effect of CO₂ driven ocean acidification on calcification, physiology and ovarian cells of tropical sea urchin *Salmacis virgulata* – a microcosm approach. *Heliyon* 7(1):e05970 (Publisher:Elsevier). SCI indexed Journal, **(IF:2.85)**.
11. R. Kalaivani, M. Maruthupandy, T. Muneeswaran, Manoj Singh, S. Sureshkumar, M. Anand, C.M. Ramakritinan, F. Quero, A.K. Kumaraguru.(Jan, 2020). Chitosan mediated gold nanoparticles against pathogenic bacteria, fungal strains and MCF-7

- cancer cells, *International Journal of Biological Macromolecules*, 146 (2020) 560–568, <https://doi.org/10.1016/j.ijbiomac.2020.01.037> Elsevier. **(IF: 4.784)**
12. Muthuchamy Maruthupandy, Sivasamy Ramesh, Franck Quero, **Muthusamy Anand**. Growth of Cu₂O nanoparticles decorated onto dendritic structured bacterial flagellin protein for potential enhancement of electrochemical conductivity, *Materials Letters*, 255 (2019) 126554, <https://doi.org/10.1016/j.matlet.2019.126554>. **SCI indexed Journal. IF: 3.019.**
 13. Govindan Rajivgandhi, Muthuchamy Maruthupandy, Thillaichidambaram Muneeswaran, **Muthusamy Anand**, Franck Quero, Natesan Manoharand, Wen-Jun Lia (2019). Biosynthesized silver nanoparticles for inhibition of antibacterial resistance and biofilm formation of methicillin-resistant coagulase negative Staphylococci. *Bioorganic Chemistry* 89 (2019) 103008. **SCI indexed Journal. IF: 3.926.**
 14. Govindan Rajivgandhi, Muthuchamy Maruthupandy*, Thillaichidambaram Muneeswar and Govindan Ramachandran, Natesan Manoharana, Franck Quero, **Muthusamy Anand**, Ji-Ming Song (2019). Biologically synthesized copper oxide nanoparticles enhanced intracellular damage in ciprofloxacin resistant ESBL producing bacteria. *Microbial Pathogenesis* 127 (2019) 267–276. **SCI indexed Journal, IF: 2.581.**
 15. Anand, M., Sathyapriya, P., Maruthupandy, M., & Hameedha Beevi, A. (August, 2018). Synthesis of chitosan nanoparticles by TPP and their potential mosquito larvicidal application. *Frontiers in Laboratory Medicine*, doi:10.1016/j.flm.2018.07.003. **IF: 2.019**
 16. R. Kalaivani, M. Maruthupandy, T. Muneeswaran, A. Hameedha Beevi, M. Anand, C.M. Ramakritinan, A.K. Kumaraguru. (April, 2018). Synthesis of chitosan mediated silver nanoparticles (Ag NPs) for potential antimicrobial applications, *Frontiers in Laboratory Medicine*, <https://doi.org/10.1016/j.flm.2018.04.002>, 2542-3649/ 2018 Chinese Research Hospital Association. Production and hosting by Elsevier B.V. on behalf of KeAi. **IF: 2.019**
 17. G. Rajivgandhi, M. Maruthupandy, T. Muneeswaran, **M. Anand**, N. Manoharan, Antibiofilm activity of zinc oxide nanosheets (ZnO NSs) using *Nocardiosis* sp. GRG1 (KT235640) against MDR strains of gram negative *Proteus mirabilis* and *Escherichia coli*, *Process Biochemistry* 67, January, 2018, 8–18, <https://doi.org/10.1016/j.procbio.2018.01.015>. **SCI indexed Journal, IF: 2.616.**
 18. M. Maruthupandy, **M. Anand**, G. Maduraiveeran, A.S. Hameedha Beevi, R. Jeeva Priya. (May 30, 2017) Fabrication of CuO nanoparticles coated bacterial nanowire film for a high-performance electrochemical Conductivity, *Journal of material science*, DOI 10.1007/s10853-017-1248-6. **SCI indexed Journal, IF: 2.993.**
 19. Muthuchamy Maruthupandy, **Muthusamy Anand**, Govindhan Maduraiveeran, Akbar Sait Hameedha Beevi, Radhakrishnan JeevaPriya. (March 5, 2018). Preparation and Exploration on the Electrochemical Behavior of Nickel Oxide Nanoparticles Coated Bacterial Nanowires, *Journal of Cluster Science* <https://doi.org/10.1007/s10876-018-1354-x> **SCI indexed Journal, IF: 1.302.**
 20. R. Jeeva priya, **M. Anand**, M. Maruthupandy, A. Hameedha Beevi. (March 1, 2017). Biomarker response of climate change-induced ocean acidification and hypercapnia studies on brachyuran crab *Portunus pelagicus* (Linnaeus 1758), *Global journal of environment science and management*, 3(2), 165-176. **IF: 0.343.**

21. G. Jayanthi, **M. Anand**, G. Chelladurai, M. Karthigarani, A.K. Kumaraguru, Bioactive potential of some economically important marine gastropods along the Gulf of Mannar region, southeast coast of India. *Journal of Coastal Life Medicine*, August 5, 2016, **4**(8), 608-611.
22. K. Muthumari, **M. Anand**, M. Maruthupandy, Collagen Extract from Marine Finfish Scales as a Potential Mosquito Larvicide, *The Protein Journal*, **35** (6), November 1, (2016) 391–40. **SCI indexed Journal, IF: 1.133.**
23. M. Maruthupandy, **M. Anand**, G. Maduraiveeran, S. Suresh, A. S. Hameedha Beevi, R. Jeeva Priya, Investigation on the electrical conductivity of ZnO nanoparticles-decorated bacterial nanowires, *Present Advances in Natural Sciences: Nanoscience and Nanotechnology*, October 13, 2016, **7**, 1-9. **Scopus indexed Journal IF: 1.483.**
24. M. Gnanadesigan, S. Ravikumar, **M. Anand**. August 31, 2016. Hepatoprotective activity of *Cerriops decandra* (Griff.) Ding Hou mangrove plant against CCl₄ induced liver damage. *Journal of Taibah University for Science*, S1658-3655(16)30055-3.
25. G. Jayanthi, **M. Anand**, G. Chelladurai, M. Karthigarani, A.K. Kumaraguru, Comparative studies on biochemical analysis of some economically important marine gastropods along Gulf of Mannar region, southeast coast of India. *Journal of Coastal Life Medicine*, June 15, 2016, **4**(6) 444-447.
26. R. Jeeva priya, M. Anand, M. Maruthupandy, A. Hameedha Beevi, A Biomarker Response of Ocean Acidification Induced Hypercapnia on Marine Bivalve *Donax cuneatus*, Linnaeus 1758, *Journal of Aquaculture & Marine Biology*, March 31, 2016, **4**(2), 1-8. **IF: 0.565**
27. G. Jayanthi, **M. Anand**, G. Chelladurai, A.K. Kumaraguru, First record of *Gnathia* sp. an ectoparasitic isopod isolated from the coral reef fish, *Heniochus acuminatus* collected from the Gulf of Mannar region, southeast coast of India, *J. Parasit Dis*, March 8, 2016, DOI 10.1007/s12639-016-0774-5. **Scopus indexed Journal IF: 0.50.**
28. **M. Maruthupandy**, M. Anand, , G. Maduraiveeran, A. Hameedha Beevi and R. Jeeva Priya. Electrical conductivity measurements of bacterial nanowires from *Pseudomonas aeruginosa*. *Adv. Nat. Sci.: Nanosci. Nanotechnol.* **6** (October 9, 2015) 045007 (7pp)1-7. **Scopus indexed Journal IF: 1.483**
29. M. Anand, M. Maruthupandy, S. Prasanna kumar, S. Ravikumar, N. Jeyaraj, R. Kumaran, Antimicrobial Potential of Chitosan from Marine Biowastes—A Wealth from Waste Approach, *Journal of Colloid Science and Biotechnology*, May 26, 2015, **3**, 188-193.
30. **M. Anand**, S. Suresh. Marine seaweed *Sargassum wightii* extract as a low-cost sensitizer for ZnO photoanode based dye-sensitized solar cell. *Adv. Nat. Sci.: Nanosci. Nanotechnol.*, May 15, 2015, **6**, 1-8. **Scopus indexed Journal IF: 1.483.**
31. **M. Anand**, M. Gobalakrishnan, M. Maruthupandy, S. Suresh. Biodiesel Production from Mixed Crude Oil of Non-Edible Marine Fishes, *Energy and Environment Focus*, January, 2015, **4**(1), 47-53.

32. S. Manikandan, S. Ganesapandian, Manoj Singh, M. Anand, A.K. Kumaraguru, Impact of Climate Change Induced Coral Bleaching in the Northern Part of Gulf of Mannar and Palk Bay, Southeast Coast of India, *Journal of Biological Sciences*, 2014, 14 (4): 276-283. **Scopus indexed Journal IF: 3.873.**
33. M. Anand, M. Maruthupandy, A.S. Hameedha Beevi, R. Jeeva Priya, Simplified method for isolation and separation of bacterial nanowires from *Pseudomonas aeruginosa*, *Nanomedicine and Nanobiology*, (October 9, 2014) **1**, 1–6.
34. Hameedha Beevi, M. Maruthupandy, R. Jeeva Priya, M. Anand, Characterization of metabolites of *Bacillus subtilis* isolated from sea surface microlayer and its antibacterial activity, *International Journal of Pharmaceutical Science and Health Care*, April, 2014, **4**, 15-24.
35. Hameedha Beevi, M. Maruthupandy, R. Jeeva Priya, M. Anand, Antibacterial activity of the crude extracts of *B. subtilis* from SML, *International journal of pharmaceutical sciences and Research*, 2014, **5** (9), 3692-3695.
36. M. Anand, M. Maruthupandy, R. Kalaivani, S. Suresh, A. K. Kumaraguru, Larvicidal Activity of Chitosan Nanoparticles Synthesized from Crab and Squilla Species against *Aedes aegypti*, *Journal of Colloid Science and Biotechnology*, 2014, 3, 188-193.
37. M. Anand, R. Kalaivani, M. Maruthupandy, A.K. Kumaraguru, S. Suresh, Extraction and Characterization of Chitosan from Marine Crab and Squilla collected from the Gulf of Mannar Region, South India, *Journal of chitin and chitosan science*, 2014, 2, 280-287.
38. M. Anand, A.S. Hameedha Beevi, M. Maruthupandy, R. Jeeva Priya. A Simple and Modified Membrane method to sample Bacterioneuston., *American Scientific Publishers, Adv. Sci. Focus*, March 14, 2014, **2**, 86-91.
39. L. Palanikumar, A.K. Kumaraguru, C.M. Ramakritinan. M. Anand. Toxicity, biochemical and clastogenic response of chlorpyrifos and carbendazim in milkfish *Chanos chanos*, *International Journal of Environmental Science and Technology*, April 17, 2013, **11**: 765 – 774. **IF: 2.937.**
40. J. Beula, M. Ravikumar, Gnanadesigan, B. Rajkumar, M. Anand. Antiviral, antioxidant and toxicological evaluation of mangrove associate from South East coast of India. *Asian Pacific Journal of Tropical Biomedicine* **2** (3), December 28, 2012, S1775–S1779. **IF: 0.925.**
41. L. Palanikumar, A.K. Kumaraguru, C.M. Ramakritinan, M. Anand, Toxicity, Feeding Rate and Growth Rate Response to Sub-lethal Concentrations of Anthracene and Benzo [a] Pyrene in Milkfish *Chanos chanos* (Forsk.) *Bulletin of Environmental Contamination and Toxicology*, November 30, 2012, **89**(6),187–197. **IF: 1.412.**
42. J. M. Beula, M. Gnanadesigan, P. Rajkumar, S. Ravikumar, M. Anand. Antiviral, antioxidant and toxicological evaluation of mangrove plant from South East coast of India. *Asian Pacific Journal of Tropical Biomedicine*, April 28, 2012, **2**, 143-147. **IF: 0.925.**
43. L. Palanikumar, A.K. Kumaraguru, C.M. Ramakritinan, M. Anand, Genotoxic assessment of anthracene and benzo [a] pyrene to milkfish *Chanos chanos*, *Toxicological & Env. Chem*, February, 2012, **94**(2): 350-363. **IF: 0.795.**
44. L. Palanikumar, A.K. Kumaraguru, C.M. Ramakritinan, M. Anand, Biochemical response of anthracene and benzo[a]pyrene in milkfish *Chanos chanos*. *Ecotoxicology and Environmental Safety*, January, 2012, **75**, 187–197. **IF: 3.743.**
45. M. Gnanadesigan, M. Anand, S. Ravikumar, M. Maruthupandy, M. Syed Ali, V. Vijayakumar, A.K. Kumaraguru. Antibacterial potential of biosynthesised silver nanoparticles using *Avicennia marina* mangrove plant. *Appl Nanosci.*, 2012, DOI 10.1007/s13204-011-0048-6. **IF: 3.325.**

46. M. Gnanadesigan, **M. Anand**, S. Ravikumar, M. Maruthupandy, V. Vijayakumar, S. Selvam, M. Dhineshkumar, A.K.K. Kumaraguru. Bio-synthesis of silver nanoparticles by using mangrove plant extract and their potential mosquito larvicidal property. *Asian Pacific Journal of Tropical Medicine*, October 20, 2011, 799-803. **IF: 0.925.**

5.2. Other Refereed Journals

1. A R Lakshmikanth, M Anand and K Rangesh. 2021. Length-weight relationship of *Upeneus vittatus* (Forsskal, 1775) from the Gulf of Mannar coast (Mandapam, Tamil Nadu), India, IJMS, May 2021, 50(5), pp. 423-427. **SCI indexed Journal, IF: 0.553.**
2. N Nagarani, M Anand & AK Kumaraguru. 2020. Environmental monitoring using biomarkers in relevance to heavy metal pollution in coastal areas of the Gulf of Mannar, Indian Journal of Experimental Biology Vol. 58, November 2020, pp. 794-802. **IF: 0.553.**
3. J. Prasanna, Ve.Seshapriya, M. Anand, A.K. Kumaraguru, K. Rangesh. 2017. Biodiversity Assessment of Crabs, Gastropods And Bivalves In Chinnapalam Creek, Of The Southeast Coast Of India, IJMS, September 2017, 46(9), 1751-1757. **SCI indexed Journal, IF: 0.553..**
4. J. Prasanna, **M. Anand**, D. Vijayasekaran, A.K. Kumaraguru, Allometric model for estimating above ground biomass and carbon storage in Karankadu mangrove swamp, Palk bay, Southeast coast of India IJMS, August, 2017, 46 (8), 1682-1692. **SCI indexed Journal,IF: 0.553..**
5. **M. Anand**, P. S. Reddy, Reproductive Biology of the Rabbitfish (*Siganuscanaliculatus*) in the Gulf of Mannar Region, South India, Indian Journal of Geo-Marine Sciences, January 2017, 46 (1), 131-140. **SCI indexed Journal,IF: 0.553..**
6. M. Anand, G. Divya, A. Hameedha Beevi, Lead-trap Net Fishing in the Gulf of Mannar region, Southeast Coast of India, IJMS, 45 (7), July 2016, 863-868 pp. **SCI indexed Journal,IF: 0.553..**
7. N. Nagarani, **M. Anand**, A. K .Kumaraguru, Microanalysis by SEM-EDS on Elemental Composition of HgCl₂ induced marine fish, Indian Journal of Geo-Marine Science, September 2015, 44 (9), 1436-1441. **SCI indexed Journal,IF: 0.553..**
8. **M. Anand**, R. Karthikeyani, J. Prasanna, K. Muthuchelian, B.A. Daniel, Invertebrate diversity and community livelihood activities at Chinnapallam village, Gulf of Mannar – a preliminary survey, ZOO's PRINT, June, 2015.
9. **M. Anand**, P. S. Reddy. Age and growth studies on white-spotted rabbitfish *Siganuscanaliculatus* (Park), from the Gulf of Mannar region South India, Indian Journal of Geo-Marine Sciences (IJMS), March 2014, 43 (3), 427-433. **SCI indexed Journal, IF: 0.553.**
10. **M Anand**, P. S. Reddy, Length-weight relationship of the white-spotted rabbitfish *Siganus canaliculatus* (Park, 1797) from the Gulf of Mannar Region, South India. J. Mar. Biol. Ass. India, April, 2012, 54 (1), 1-8

5.3. Papers Published in Conference Proceedings

1. K.B.Sivakami, and **M.Anand**, 2014. Isolation and characterization of microbes involved in spoilage of marine finfinshes. In: Baby Shakila, P (Eds.), Global Opportunities for Recent Developments in Science and Technology- National level Seminar held on 8th Feb 2014 (pp. A 90- A 94) ISBN- 9789382323. Department of Biochemistry Rev. Jacob. Memorial Christian College, Ambilikkai.. 380 pages.
2. K.B. Sivakami and **M. Anand**,(2018). Full paper Proceeding entitled “Isolation and Antibacterial activity of Chitosan. in National Conference on Emerging trends in exploring phyto chemicals and biomolecules for disease cure” organized by Rev. Jacob Memorial Christian College, Ambilikkai,Dindigul (D.t) on 6th Feb 2018.
3. K. Rangesh, **M. Anand** and B. Rajeswari (2018). Full paper Proceeding entitled “Role of Sea grass in Biomedical Applications research against life threatening diseases” in National Conference on Emerging trends in exploring phyto chemicals and biomolecules for disease cure organized by Rev. Jacob Memorial Christian College, Ambilikkai,Dindigul (D.t) on 6th Feb 2018. (Best Paper Award). Subhi Printers, Palani Main Road , Oddanchatram – 624619.
4. B. Rajeswari, **M. Anand** and K. Rangesh, P. Santhanam, K. Arunjunai rajan (2018). Full paper Proceeding entitled “A review on the Biomedical Applications of Marine Seaweeds” in National Conference on Emerging trends in exploring phyto chemicals and biomolecules for disease cure organized by Rev. Jacob Memorial Christian College, Ambilikkai,Dindigul (D.t) on 6th Feb 2018.
5. Muthusamy Anand, P. Karthika, Kannan Rangesh, Balakrishnan Rajeswari Radhakrishnan Jeeva Priya. (2020). Full paper Proceeding entitled “Reduced seawater pH and hypercapnia – A measure of ocean acidification and its impact on *Modiolus philippinarum*” Published on National Conference at Rev. Jacob Memorial Christian College, Ambilikkai,Dindigul (D.t) 7th February 2020.
6. Sivakamy K.B. and Muthusamy Anand (2020).“Fourier Transform Infrared Spectroscopy (FTIR) analysis of chitosan isolated from Shrimp” Published on National Conference at Rev. Jacob Memorial Christian College, Ambilikkai,Dindigul (D.t) 7th February 2020.
7. P. Murugan, Amit Kumar, M. Anand, A.K. Kumaraguru, L. Palanikumar, Influence of pH on Calcification and Biomarker enzymes of soft shell wedge clam *Donax faba* (Gmelin), Proceedings of International Conference on “Impact of Climate Change on Coastal Ecosystem” (ICC-ECO 2011) Sathyabama University, Jeppiaar Nagar, Chennai, India.10th – 11th November 2011.
8. Manoj Singh, R.C. Kalaivani, **M. Anand**, C.M, Ramakritinan and A.K. Kumaraguru. 2011. Rapid biomimetic synthesis of silver nanoparticles from Asiatic mangrove (*Rhizopora mucronata*) and its antimicrobial activity against clinically isolated pathogens. Proceeding of International Conf. on Nanoscience, Engineering and Technology (ICONSET), 2011. Pp: 408-414 Digital Object Identifier: 10.1109/ICONSET.2011.6167990.(Peer reviewed).
9. Anand M and P. S. Reddy. 2004. Structure prediction of hemolytic protein in Ompak pabдах, the Pabдах fish using Toxin- A Precursor of *Carybdea rastonii*, Box jelly fish. Proceedings of MBR 2004 National Seminar on New Frontiers in Marine Bioscience Research, eds. Abidi, S. A. H., Ravindran, M., Venkatesan, R and Vijayakumaran, M. PP 265 – 270.

10. Ramakritinan, C.M., Sugandha Shankar, M. Anand and A.K.Kumaraguru. 2010. Biosynthesis of silver, gold and bimetallic alloy (Ag: Au) Nanoparticles from green alga, *Lyngbya* sp. Proc. 3rd Nat. Conf. on Nano materials and Nanotechnology, Amity University, Lucknow 21st -23rd December 2010, Int. J. Mindshare, 1(1): 174-187.
11. N. Nagarani and M. Anand. Integrated Environmental Risk Assessment Using Biomarkers in Marine Plants of the Gulf of Mannar, India. Proceedings of the 5th International Conference on Environmental Science and Development ICESD 2014, Organised by Asia-Pacific Chemical, Biological & Environmental Engineering Society, Hong Kong held between 19th and 21st February, 2014, at Singapore, APCBEE Procedia, Elsevier, ISSN: 2212-6708.
12. N. Nagarani and M. Anand .2015. Marine Environment Monitoring using Biomarkers in relevance to the development of ecological indices of gulf of mannar region. International conference on Plant, Marine and Environment Sciences (PMES-2015) Jan. 1-2,2015 kuala Lumpur (Malaysia). Dx.doi.org/10.15242/IICBE.CD115019.

5.4. Papers Presented in Conferences / Seminars

5.4.1. International

1. **The National University of Singapore (NUSS):** 14 and 15 November 2019, 4 th ICSTR Singapore – International Conference on Science & Technology Research, The Kent Ridge Guild house, organized by Scientific & Technical Research Association (STRA)- National University of Singapore Society.

5.4.2. International held within India

1. K. Rangesh, **M. Anand** and B. Rajeswari,(2019). Presented a paper entitled on “Immunological and Biomarker tools for assessing the impact of ocean acidification on sea urchin *salmacis virgulata*” on the event International Conference on Current Immunological Tools for Biodiversity and status of environment health sponsored by Indian Council of Social Science Research (ICSSR) and Department of Biotechnology (DBT), Government of India, New Delhi organized by CAS Marine Biology, Annamalai University, Parangipettai (21-23, August 2019).
2. Rangesh Kannan, **Anand Muthusamy** and Rajeswari Balakrishnan. Presented a paper entitled “Effect of Hypercapnia Induced Biomarker Response in Sea Star *Goniodiscaster scaber* (Moebius, 1859) – A Microcosm Approach for Climate Change Induced Ocean Acidification” organized by Department of molecular cardiology and Endling conferences in Madurai Kamaraj University, Madurai, India. (Oral Presentation)
3. Lakshmikanth A. R*, **Anand M** and Rangesh Kannan., “Food and Feeding habits of *Upeneus vittatus* (Forsskal, 1775) from Gulf of Mannar Coast (Mandapam, Tamil Nadu) of India” in the BRAQCON 2019, world Brackishwater Aquaculture Conference 2019, Organized by Society of Coastal Aquaculture and Fisheries (SCAFi) and ICAR – CIBA) at Chennai during 22 - 25 January 2019.
4. Aravindraj M., Anand M*., Rangesh Kannan., Rajeswari Balakrishnan and Visun raj K, “Aragonite saturation state – A measure of climate change associated threat to shrimp farming in aquaculture pond systems” in the BRAQCON 2019, world Brackishwater Aquaculture Conference 2019, Organized by Society of Coastal Aquaculture and Fisheries (SCAFi) and ICAR – CIBA) at Chennai during 22 - 25 January 2019.

5. K. Rangesh, M. Anand and B. Rajeswari,(2018). Ocean Acidification- A major threats to marine calcifiers, International seminar on coastal and marine biodiversity and conservation(ISCMB-2018) Conducted by Centre of Advanced study in Marine Biology, Annamalai University, Parangipettai, 15 and 16 March- 2018.
6. B. Rajeswari, M. Anand and K. Rangesh, P. Santhanam (2017). Presented a research paper entitled “Carbon dioxide (CO₂) Induced Ocean Acidification Perturbation Experiment on Marine Plankton *Amphora Subtropica*” in International Conference on Climate Change and sustainable development with a special reference to Indian Context (ICCCSD-2017) organized by Annai Fathima College of Arts & Science, Madurai, Tamil Nadu between 14 & 15 December 2017. (Best Paper Award).
7. K. Rangesh, M. Anand and B. Rajeswari (2017). Presented a research paper entitled “Echinoderm Response to CO₂ induced Ocean Acidification” in International Conference on Climate Change and sustainable development with a special reference to Indian Context (ICCCSD-2017) organized by Annai Fathima College of Arts & Science, Madurai, Tamil Nadu between 14 & 15 December 2017. (Best Paper Award).
8. M. Anand, P. Karthika, R. Jeeva Priya, G. Jayanthi, M. Santhanakrishnan, A. Hameedha Beevi, M. Maruthupandy. Effects of Ocean Acidification on Environmental Stress Biomarkers and Calcification Rate of *Modiolus philippinarum* from the Gulf of Mannar, Tamlnadu, India. International Workshop on Ocean Acidification IWOA'13 held between 20th and 21st September 2013, organized by Laboratory of Integrative Taxonomy and Microbial Ecology, Department of Biological Sciences, IISER-Kolkata.
9. M. Maruthupandy, Hameedha Akbar, R.Jeeva Priya., R. Kalaivani **M. Anand**., 2012. Production of Electricity from Microbial Fuel Cells (MFC's) using Metal Reducing Bacteria (MRB). International workshop and conference on Renewable energy and Climate change –Exploring opportunities for sustainable development, organized by School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai between 5th and 7th April, 2012. (Abstract).
10. **Muthusamy Anand**, B. Manikandan, Hameedha Akbar, R. Kalaivani and A. K. Kumaraguru. 2012. RAPD as a Tool to study the Genotoxicity stress in marine bacteria. International Conference on Environmental Security for Food and Health held between 16 -18 February 2012 at Vivekananda Kendra, Cape Comorin. Jointly Organized by EPS Global Medical Inc., Canada, The M. D. T Hindu College, Tirunelveli and K. K Trust, Chidambaram.
11. Anand, M., P. Murugan, Amit Kumar, A.K. Kumaraguru, And L. Palanikumar. Effect of Lowered pH on Calcification And Growth Rate In Intertidal Crab *Leucosia* Spp. An Understanding Towards Ocean Acidification And Global Climate Change. Tiecon2011 International Conference On Tropical Island Ecosystems Held In CARI, PORT BLAIR, Andaman & Nicobar Islands, INDIA During 23-26 March, 2011 (Abstract).

5.4.3. National

1. Chinna Dura, S., Lita Sunder., M. Anand, R. Moses Inbaraj, N. Thirunavukkarasu and V. Deepak Samuel. 2010. A Study on Biochemical Constituents of *Gracilaria edulis* and *Ulva lactuca* from Pulicat region. Abstracts: National Seminar on Advances in Biological Sciences (ABS-2010) held on 22-23 Jan., 2010, Dept of Zoology, Annamalai University.

2. **Muthusamy Anand**, R.S. Pandiya Rajan, R.Jeeva Priya, R. Kalaivani and A.K. Kumaraguru. 2011. RAPD as a Technique to Assess the Genotoxicity of Zinc on the *Vibrio* sp. Isolated from the Gulf of Mannar Region. National Conference on Aquatic Biotoxins-2011. CAS in Marine Biology, Faculty of Marine Sciences, Annamalai University. September 14th -16th 2011, In: Bragadeeswaran Subramanian & Raffi S. M. (Eds.), Advances in Aquatic Biotoxins: Venom and Poison (pp. 19 -32) ISBN-10: 3848415747 | ISBN-13: 978-3848415748, LAP LAMBERT Academic Publishing, 176 pages. (Best Paper Award)
3. Akbar Sait Hameedha Beevi, Muthusamy Maruthupandy, Radhakrishnan Jeeva Priya and **Muthusamy Anand**. 2014. Microbiology of sea surface microlayer from Palk Bay, Mandapam. National Conference On Innovations, implementations and Controversies of Animal Biotechnology organized by Bharathidasan University, Tiruchirapalli on March 20 and 21, 2014.
4. Akbar Sait Hameedha Beevi, Muthusamy Maruthupandy, Jeeva Priya Radhakrishnan and **Muthusamy Anand**. 2014. Secondary metabolites from bacterioneuston. Seminar on Advanced Technologies and Innovations in Energy and Environment organized by Madurai Kamaraj University on March 28, 2014.
5. K. Rangesh, M. Anand and B. Rajeswari (2017). Presented a research paper entitled “Impact of Increasing Acidity on Echinoderms” in Energy Fest’17 Seminar on Advanced Technologies and Innovations in Energy and Environment, 2017 conducted by School of Energy Sciences, Madurai Kamaraj University, Madurai, Tamil Nadu on 28th March 2017
6. B. Rajeswari, M. Anand and K. Rangesh (2017). Presented a research paper entitled “The Impact of Ocean Acidification on Marine Plankton” in Energy Fest’17 Seminar on Advanced Technologies and Innovations in Energy and Environment, 2017 conducted by School of Energy Sciences, Madurai Kamaraj University, Madurai, Tamil Nadu on 28th March 2017
7. K. Rangesh, M. Anand and B. Rajeswari, (2018). Presented a research paper entitled “Impact of Anthropogenic CO₂ emission on Ocean Carbonate System – a major threat for ocean dependent human livelihood” American College, Madurai. Feb-2 and 3, 2018
8. K.B. Sivakami and M. Anand, (2018). Presented a research paper entitled “Isolation and Antibacterial activity of Chitosan. in National Conference on Emerging trends in exploring phyto chemicals and biomolecules for disease cure” organized by Rev. Jacob Memorial Christian College, Ambilikkai, Dindigul (D.t) on 6th Feb 2018.
9. K. Rangesh, **M. Anand** and B. Rajeswari (2018). Presented a research paper entitled “Role of Sea grass in Biomedical Applications research against life threatening diseases” in National Conference on Emerging trends in exploring phyto chemicals and biomolecules for disease cure organized by Rev. Jacob Memorial Christian College, Ambilikkai, Dindigul (D.t) on 6th Feb 2018. (Best Paper Award). Subhi Printers, Palani Main Road , Oddanchatram – 624619.
10. B. Rajeswari, **M. Anand** and K. Rangesh, P. Santhanam, K. Arunjunai rajan (2018). Presented a research paper entitled “A review on the Biomedical Applications of Marine Seaweeds” in National Conference on Emerging trends in exploring phyto chemicals and biomolecules for disease cure organized by Rev. Jacob Memorial Christian College, Ambilikkai, Dindigul (D.t) on 6th Feb 2018.
11. K. Rangesh, M. Anand and B. Rajeswari (2018). Presented a research paper entitled “Impact of CO₂ Induced Ocean acidification on Sea Urchin shells ” in the 49th Aqua-Terr Annul Conference on Biological Sciences, School of Biological Sciences, Madurai Kamaraj University, Madurai. Feb 27,28- 2018.

12. B.Rajeswari , M. Anand, P. Santhanam and K. Rangesh, (2018). Presented a research paper entitled “Effects of elevated CO₂ and temperature on the growth, Pigmentation and Nutrition composition of the Marine diatom – *Amphora subtropica*” in the 49th Aqua- Terr Annual Conference on Biological Sciences, School of Biological Sciences, Madurai Kamaraj University, Madurai. Feb 27,28- 2018.
13. **Anand Muthusamy**, Rangesh Kannan, Rajeswari Balakrishnan, Maruthupandy Muthusamy, Jayakumar.K, Ravikumar. S. A Comprehensive Assessment of Marine Debris In The Seeniappa Dargha Beach, Gulf Of Mannar, Ramanathapuram District, National Conference On Marine Debris Comad 2018, Conducted by Central Marine Fisheries Research Institute, Kochi. 11th and 12th April, 2018.
14. **Anand Muthusamy** “Sustainable Aquaculture Practises” National Seminar on Marine Fisheries and Aquaculture, Conducted by Department of Zoology, Syed Ammal Arts and Science College, Ramanathapuram, 20th September 2018.
15. Lakshmikanth A. R, **Anand M**, Rangesh. K, “The status of goatfish catch at mandapam and pamban landing centers with special reference to *Upeneus vittatus* (forsskal)”. National Seminar on Marine Fisheries and Aquaculture, Conducted by Department of Zoology, Syed Ammal Arts and Science College, Ramanathapuram, 20th September 2018.
16. K. Ramya Devi., **Anand M** *, Rajeswari Balakrishnan and Rangesh Kannan, Presented a paper entitled on “Preparation of Nutritive snack using most common ingredients obtained from marine and coastal resources” in the National Conference on Eco – Waste Management (NCEM – 2019) Organized by PG Department of Zoology, Government Arts College, Melur, on 25th January 2019. (Best Presentation Awarded).
17. **Muthusamy Anand**, P. Karthika, Kannan Rangesh, Balakrishnan Rajeswari Radhakrishnan Jeeva Priya. (2020). “Reduced seawater pH and hypercapnia – A measure of ocean acidification and its impact on *Modiolus philippinarum*” Published on National Conference at Rev. Jacob Memorial Christian College, Ambilikkai, Dindigul (D.t) 7th February 2020.
18. Sivakamy K.B. and Muthusamy Anand (2020). “Fourier Transform Infrared Spectroscopy (FTIR) analysis of chitosan isolated from Shrimp” Published on National Conference at Rev. Jacob Memorial Christian College, Ambilikkai, Dindigul (D.t) 7th February 2020.
19. Rangesh Kannan, **Anand Muthusamy** and Rajeswari Balakrishnan (2020). “MARINE BIOLOGY - A CHALLENGING CAREER” on National Youth Science Conference For Sustainable Development (NYSCSD 2020) conducted by TamilNadu Scientific Research Organisation, Pudukkottai-622003, Tamil Nadu on 28.02.2020.

5.4.4. State

1. Akbar Sait Hameedha Beevi, Muthusamy Maruthupandy, Radhakrishnan Jeeva Priya and **Muthusamy Anand**. 2014. A study on diversity of bacterioneuston from Palk Bay, Mandapam. Students’ state level seminar on Biodiversity organized by Ayya Nadar Janaki Ammal College, Sivakasi on Feb 21, 2014. Awarded as the best presentation of the fourth technical session.

5.5. Any Other Publications Not Mentioned Above

6. Conferences / Seminars / Workshops / Webinars Attended

- 2021 Participated in the UGC –Sponsored Online Short Term Course on Massive Open Online Course (MOOCS), conducted by the UGC Human Resource Development Centre, Madurai Kamaraj University from 07.03.2022 to 13.03.2022.
- 2020 Participated ICAR-APAARI “Regional Capacity Building Program on Biotechnological Tools in Aquatic Genetic Resource Management and Ex-Situ Conservation” during December 07-18, 2020 (**Virtual Mode**) conducted by ICAR-National Bureau of Fish Genetic Resources, Lucknow, India.
- 2019 Refresher Course in Teacher Education (Theme: Professional Learning and Development) organized by the UGC Human Resource Development Centre, Madurai Kamaraj University between 06.12.2019 and 19.12.2019.
- 2018 ICAR Short course on “Application of Advanced Molecular Methods in Marine Fishery Resource Management, Conservation and Sustainable Mariculture” from 24.10.2018 to 02.11.2018, Central Marine Fisheries Research Institute (CMFRI) Kochi, Kerala (ICAR Sponsored)
- 2018 Regional Training programme for Nominees of CPCSEA in Madras Veterinary College, Chennai on 19.07.2018 and 20.07.2018 (MoEF Sponsored)
- 2017 Training Programme on Yoga for Holistic Life Course in centre for Educational Research, Madurai kamaraj University, Madurai and the world community service centre temple of consciousness, Aliyur from 18.04.2017 to 23.04.2017.
- 2016 Refresher Course in Ecology and Environmental studies (Multi - Disciplinary) between 02.11.2016 and 22.11.2016 in the UGC- HRDC, Academic Staff College, Madurai Kamaraj University.
- 2015 Ministry of Environment Forest and Climate Change, sponsored Training Programme for CPCSEA (Committee for the Purpose of Control and Supervision of Experiments on Animals) Nominee held between 07th and 11th September 2015 at National Institute of Animal Welfare, Ballabgarh, Faridabad, Haryana.
- 2014 Ministry of Human Resource Development sponsored Training Programme on Biodiversity of Marine Flora held between 19th and 20th March 2014 at Centre of Advanced study in Marine Biology, Annamalai University, Parangipettai.
- 2013 Refresher Course in Life Sciences between 07.11.2013 and 27.11.2013 in the UGC – Academic Staff College, Madurai Kamaraj University.
- 2012 National Fisheries Development Board (NFDB) Sponsored Training Programme On “Seed Production And Larval Rearing Of Asian Seabass (*Lates calcarifer*)” held at Central Institute of Brackishwater Aquaculture (CIBA), Chennai between 15th Oct 2012 and 19th Oct 2012 (5 days).

- DST-NRDMS Sponsored Summer Training Programme on Geospatial Technologies and Applications between 08th May and 28th May 2012 in the Department of Future Studies, School of Energy Environment and Natural Resources, Madurai Kamaraj University, Madurai.
- 2011 Refresher Course Interdisciplinary Nanosciences (III batch) between 08.11.2011 and 28.11.2011 in the UGC – Academic Staff College, University of Madras.
- 2011 Orientation Course 61st batch between 12.05.11 and 08.06.11 in the UGC – Academic Staff College, Madurai Kamaraj University
- 2011 Ground-Water Management Training. Government of India, Ministry of Water Resources South Eastern Coastal Region Central Ground Water Board. date: 6th & 7th January 2011.
- 2010 Marine Ornamental Fish Culture. National Fisheries Development Board Govt. of India, Hyderabad and Regional centre of CMFRI, Mandapam. Date 6th – 15th Dec., 2010
- 2009 Remote Sensing and GIS for Environmental Monitoring - “Photogrammetry Applications. NNRMS- ISRO IRS – Anna University, Chennai. Dated 18th May to 26th June 2009.
- 2008 Marine Ecotoxicology. Ministry of Earth Sciences, ICMAM, National Institute of Ocean Technology. 14th to 21st May 2008.
- International workshop – Taxonomy & Ecology of Harmful algae & biotoxins. UNESCO KVAFSU, College of Fisheries, Mangalore. 21-25, January, 2008
- 2007 28 days Orientation Course – Batch – 79, 2007, UGC – Academic Staff College, University of Madras.
- 2007 Image Analyst, GeoMedia Professional. Rolta India Limited, Mumbai.
- Bay of Bengal Biogeographic Information System (BoBIS). Centre of Advanced study in Marine Biology, Annamalai University.
- International Workshop on Capacity Building in Integrated Coastal Management. Institute of Ocean Management, Anna University, Chennai
- 2003 Aquatic Animal Toxins and Pharmacological Bioresources. Central Institute of Fishery Education, Mumbai.
- 2001 Geographical Information System. Technical Teachers Training Institute, Taramani, Chennai.
- 2000 Seaweed Culture and Utilisation. Regional centre of CMFRI, Mandapam.
- Identification of Flora and Fauna in Mangrove Ecosystem. Centre of Advanced study in Marine Biology, Annamalai University, Parangipettai,

Breeding and Culture of Ornamental Fishes. Central Institute of Freshwater Aquaculture, sponsored by Indian Council of Agricultural Research (ICAR), New Delhi.

Meetings and Conferences :

- Expert –Resource person for the Consultative Meeting conducted by the Gulf of Mannar Biosphere Reserve Trust (GOMBRT) to discuss “Future Management of GOMBRT and Financial help to SHG’S” with district collectors of Ramanathapuram and Thoothukudi districts on 18.09.2012 at Collectorate, Ramanathapuram.
- Chairperson - Global Opportunities for Recent Developments in Science and Technology- CSIR sponsored National level Seminar held on 8th Feb 2014 Department of Biochemistry Rev. Jacob. Memorial Christian College, Ambilikkai.

7. Details of Deposits in CCDC, PDB, etc.

No	Name of Deposit	Reference No.	Date of Deposition
1	GenBank	FJ939392	16.04.2009
2	GenBank	FJ939393	16.04. 2009
3	GenBank	GU477488	19.01.2010
4	GenBank	HM235927	19.01.2010
5	GenBank	GU936825	24.04.2010
6	GenBank	GU936826	24.04.2010
7	GenBank	HM235926	14.05.2010
8	GenBank	HM235927	14.05.2010
9	GenBank	KC688286.1	26.02. 2013
10	GenBank	KC688287.1	26.02.2013
11	GenBank	KC688293.1	26.02.2013
12	GenBank	KC688289.1	26.02.2013
13	GenBank	KC688290.1	26.02.2013
14	GenBank	KC688291.1	26.02.2013
15	GenBank	KC688292.1	26.02.2013
16	GenBank	KC688293.1	26.02.2013
17	GenBank	KC688294.1	26.02.2013
18	GenBank	KJ495982.1	27.02.2014
19	GenBank	KJ495981.1	27.02.2014
20	GenBank	KJ495980.1	27.02.2014
21	GenBank	KX512794.1	07.07.2016
22	GenBank	KX512795.1	07.07.2016
23	GenBank	KX512796.1	07.07.2016
24	GenBank	KX512797.1	07.07.2016
25	GenBank	KX512798.1	07.07.2016

26	GenBank	KX512799.1	07.07.2016
27	GenBank	KX512800.1	07.07.2016
28	GenBank	KX512801.1	07.07.2016
29	GenBank	KX512802.1	07.07.2016
30	GenBank	KX618188.1	28.07.2016
31	GenBank	KX618189	28.07.2016
32	GenBank	AOK85292.1	28.07.2016
33	GenBank	AOK85293.1	28.07.2016
34	GenBank	AOK85293.1	19.09.2016
35	GenBank	KY012762.1	19.09.2016
36	GenBank	KY012763.1	19.09.2016
37	GenBank	KY012764.1	19.09.2016
38	GenBank	KY012765.1	19.09.2016
39	GenBank	KY012766.1	19.09.2016
40	GenBank	KY012767.1	19.09.2016
41	GenBank	KY012768,	19.09.2016
42	GenBank	KY012769.1	19.09.2016
43	GenBank	KY012770.1	19.09.2016
44	GenBank	KU510285.1	29.12.2015
45	GenBank	KU510286.1	29.12.2015
46	GenBank	KU510287.1	29.12.2015
47	GenBank	KJ556518.1	05.05.2014
48	GenBank	KJ556519.1	-
49	GenBank	KJ556520.1	-
50	GenBank	KJ556521.1	-
51	GenBank	KJ556522	-
52	GenBank	KJ556523	-
53	GenBank	KJ556524	-
54	GenBank	KJ556525	-
55	GenBank	MN319645.1	15.08.2019
56	GenBank	MN319646.1	16.08.2019
57	GenBank	MN319647.1	16.08.2019
58	GenBank	MN319648.1	16.08.2019
59	GenBank	MN319649.1	16.08.2019
60	GenBank	MN319650.1	16.08.2019