

PROFESSIONAL INTERESTS

Extraction and characterization of bioactive molecules from aquatic plant resources with special reference to antiarthritic anti-inflammatory antiproliferative compounds, value added products from marine algal resources, algal pigments and dyes & microalgal cultivation; Spirulina cultivation and its value added products

PRESENT POSITION

Chief Scientist, Centre for Algal Biotechnology,
Peace People planet Organization, MACFAST, Tiruvalla
(Regional Centre: T.C.No 15/1014, Cotton Hill Square, Vazhuthacaud
Trivandrum 695014); E mail : maayasu@gmail.com
Mob: 9940526108

Visiting Scientist

Environmental Resources Research Centre,
Peroorkada Thiruvananthapuram 695005

DATE OF BIRTH

11th JUNE 1962

EDUCATIONAL QUALIFICATIONS:

Ph. D., Aquatic Biology (1992) Dept of Aquatic Biology & Fisheries, Kerala University. Dissertation:
Biocoenosis of Intertidal Rock – Pools with Special Reference to Macrophytes

M. Sc., Botany (1984) Kerala University, I Class (66%)

B. Sc., Botany (1982) Kerala University, I Class (83%)

HONORS AND AWARDS

India Woman Scientist (2012 to 2015) Department of Science & Technology, Govt. of India

India Woman Scientist (2007 to 2010) Department of Science & Technology, Govt. of India

Senior Research Associate (2003 to 2006) Council for Scientific & Industrial Research, Govt.
of India

PROFESSIONAL SERVICE

Professional societies: Seaweed Research & Utilization Association (CMFRI, Mandapam), Phycological Society of India (New Delhi), Krishnamurthy Institute of Algology (Chennai), Wetlands International (Malaysia) and Society of Ethnobotanists (NBRI, Lucknow)

Reviewer: Journal of Economic and Taxonomic Botany (ISSN 2050-9768), Phykos (ISSN 0554-1182), International Journal of Agricultural Science and Technology (ISSN: 2161-6256 (A), ISSN: 2161-6264 (B) Indian Hydrobiology (ISSN 0971-6548)

POSITIONS HELD

2020- till date **Chief Scientist, Centre for Algal Biotechnology,**

Peace People planet Organization, Trivandrum Regional Centre & **Visiting Scientist** Environmental Resources Research Centre (ERRC)

2015 – 2020 - **Sr. Principal Scientist & Head Algal laboratory** - AMM-Murugappa Chettiar Research Centre Taramani, Chennai, India

2012- 2014 - **Professor**, Department of Biosciences; Scientist & Head, Centre for Sustainable Aquatic Resources & Algal Biotechnology (C-SARAB), MACFAST (Mar Athanasios College for Advanced Studies Tiruvalla) Kerala, India

2009 to 2012 - **Associate Professor**, Department of Phytomedical Science & Technology; Scientist & Head, Centre for Algal Biotechnology, MACFAST, Kerala, India

2006 to 2009 – **Assistant Professor**, Department of Phytomedical Science & Technology, MACFAST (Mar Athanasios College for Advanced Studies Tiruvalla), Kerala, India

2003 to 2006 – **Pool Officer/Senior Research Associate (CSIR)**, Regional Research Laboratory, Pappanamcode, Trivandrum, Kerala, India

1995 to 2002 – Research Associate, Tropical Botanic Garden & Research Institute, Trivandrum

1992 to 1995 – Senior Executive R&D, Khoday group of Industries, Bangalore

1991 to 1992 – Senior Research fellow, STEC (Govt. of Kerala) project entitled, “The Biochemical Composition & Pharmaceutical Importance of Marine Algae of Kerala coast”

1986 to 1988 – Junior Research Fellow, DOEn (Gov. of India) project entitled, “Algal resources of Kerala coast and their utilization”.

PEER-REVIEWED

- Balakrishnan Nair N., V. Sobha, R. Chandran, M. Rathi Ammal, **S. Maya** and H. Suryanarayanan. 1986. Algal Resources of Kerala Coast II. An Update List of Indian Marine Algae. *Aquatic Biology* 6: 25-52.
- Balakrishnan Nair N., V. Sobha, R. Chandran, M. Rathi Ammal, **S. Maya** & H. Suryanarayanan, 2000. Algal resources of Kerala coast IV. The Nature of Variation in Hourly Distribution of Plankton during a 24 hour Cycle along the South-west Coast of India. *Hydrobiologia*.
- Balakrishnan Nair N., V. Sobha, R. Chandran, M. Rathi Ammal, **S. Maya** & H. Suryanarayanan, 2000. Algal resources of Kerala Coast VI. Physicochemical factors of the coastal waters of south-west coast of India, *Hydrobiologia*.
- Balakrishnan Nair N., V. Sobha, R. Chandran, M. Rathi Ammal, **S. Maya** & H. Suryanarayanan, 1995. Algal Resources of Kerala Coast VII. Nature of recolonisation of algae on rocky denuded surface. *Seawd. Res. Utlzn.* 18 (1&2).
- Nair, N. B., V. Sobha, R. Chandran, M. R. Ammal, **S. Maya**, & H. Suryanarayanan 1993. Algal resources of Kerala coast. VIII. Occurrences and relative abundance of Rhodophyta. *Seaweed Research and Utilisation* 16: 183--197, 9 figs., 1 table.
- Balakrishnan Nair N., V. Sobha, R. Chandran, M. Rathi Ammal, **S. Maya** & H. Suryanarayanan, 1990. Algal Resources of Kerala Coast IX. Relative abundance of Chlorophyceae along South-west Coast of India. *Seawd. Res. Utlzn.* 12: 125 - 135.
- Balakrishnan Nair N., V. Sobha, R. Chandran, M. Rathi Ammal, **S. Maya** & H. Suryanarayanan 1996. Algal Resources of Kerala coast X. Occurrence and relative abundance of Phaeophyta. *Seaweed Res Utlzn.* 20 (1&2)
- Maya S.** 1995. Evaluating the possibility of utilizing two natural media in mass-culturing *Spirulina platensis* (Nordst.) Geitler. *Seawd. Res. Utlzn.* 19 (1&2) : 109-114
- Maya S.** and N Balakrishnan Nair, 1992. Ecology of Tropical Intertidal Rock Pools II. Incidence and relative abundance of macro-algae of Rock-Pools at Kovalam, South-west Coast of India. *Seawd. Res. Utlzn.* 1 (1&2) : 21-38
- S. Maya**, S. Kumari Prameela and V. Sarojini Menon 2001. A preliminary study on the algal flora of temple tanks of Southern Kerala. *Phykos.* 39 (1&2) : 77-83
- S. Maya** and V Sarojini Menon. Ecology and Occurrence of *Nostochopsis radians* Bharadwaja in a freshwater tank in Kerala (India). *Phykos* 40(1&2): 71-73
- S. Maya** and V. Sarojini Menon, 2002. Plant patterns in River Channels of Kerala (India) - A case Study. . *Eco Env Cons*, 8 (2): 133-139

- S. Maya**, V. Sarojini Menon and G. Sreekandan Nair, 2002. Economic Importance of River Vegetation of Kerala. - A Case Study. *Journal of Economic and Taxonomy Botany*. 26 (3): 649 – 656
- S. Maya**, 2002. A study on the nutritional composition of selected freshwater plants of Kerala, *J Econ Tax Bot*. 26 (3): 562 – 565
- S. Maya**, 2002. Harvesting Water in Temple Tanks through People's Participation - A Feasibility Study - *Nature, Environment & Pollution Tech*. 1 (4): 375 – 37
- S. Maya**, 2002. Occurrence of *Anabaena beckii* De Toni G. B. in Peninsular India. *J Econ Tax Bot*. 26 (3): 625 - 626
- S. Maya**, 2003. Ethnobotanical notes on the flora of sacred tanks of Kerala. *Ethnobotany*, 15: 55 - 59
- S. Maya**. Temple tanks- the water harvesting systems of Kerala and their multifarious role. - *Indian J. Traditional Systems* 2 (3) : 224 - 29
- S. Maya**. 2003. Pollution assessment of selected temple tanks of Kerala. *Nature, Environment & Pollution Technology*, 2(3): 289 – 94
- Maya S.**, T. Maragatham and C. S. P. Iyer. 2005. Antimicrobial activity of three selected macrophytes of South India. *Indian Hydrobiology*, 8 (2): 101 – 107
- Iyer, C. S. P. and **Maya Subramoni**. Standards and Reference Materials for Marine Algae. Monograph on recent advances on applied aspects of Indian marine algae with reference to global scenario. Central Salt & marine Chemicals Research Institute (CSMCRI), Gujarat.
- S. Maya** Kumari S. Prameela. & V. Sarojini Menon A study on Epipelon of selected freshwater tanks of Kerala. *J. Econ. & Tax. Bot*.
- S. Maya** Kumari S. Prameela . 2007. Nature and Composition of Periphytic Algae of a freshwater tank of Kerala (S. India) *J. Econ. Tax. Bot*. (Accepted)
- Maya S.**, T. Maragatham and C. S. P. Iyer., 2006. Antimicrobial effect of some aquatic macrophytes of Kerala, India. *Indian Hydrobiology* 9(2): 193-198
- Maya S.**, 2007. A study on the algal diversity of Vamanapuram River of South Kerala, in relation to certain water quality parameters. *Indian Hydrobiology* 10 (1): 157 – 163
- Biju Mathew, Mariamma Thomas Varghese and **Maya Subramoni**, 2008. Ethnobotany of marine algae of south-west coast of India. *Seaweed Res. Utln*. 30: 269-271
- Jincy P. Abraham and **Maya Subramoni** 2009. Cultivation of *Kappaphycus alvarezii* Doty (Doty) in India – Prospects and perspectives. *J. Science Tech. Management* 2(1): 7 - 10

Jincy P. Abraham, **Maya Subramoni** and Satheesh Kumar K. 2010. Studies on seasonal variation in biochemical and elemental composition of *Kappaphycus alvarezii* Doty (Doty) cultivated in Kerala coast. *Proceedings of the International Conference on Algal biomass, resources and Utilization*, pp. 55-59

Maya Subramoni, K. Satheesh Kumar, T. Dilip Joy and Jincy P. Abraham. 2010. A study on the inhibitory effect of some marine algal extracts on matrix metalloproteinase activity. *Proceedings of the International Conference on Algal biomass, resources and Utilization*, pp153-156

Anandan K, **Maya S**, Vadivu R and Radha R, 2018. A Review on Utilization of Diatom biosilica as Drug delivery vehicles, *International journal of pharmacy and Integrated Life sciences* 6(2): 20-31)

Maya Subramoni, Minu Vijayan and Jithin Saji, 2019. Evaluation of Bioactive Compounds from the fresh water Aquatic Weed *Cabomba caroliniana* A. Gray . *Journal of Chemical and Pharmaceutical Research*, 11 (8): 41 - 54

Mona S, Yazhini M, Fakhruddin Shaukat P, Chandra Sekarenthiran S and **Maya S**, 2019
Extraction of algal pigments and analysing their dyeing and antimicrobial properties
Journal of Algal Biomass & Utilization, 10(2): 1-18

ARTICLES IN REVIEW/PREPARATION

Maya S, Srivinaya S and Saraswathi M., 2019. A simple method for production axenic cultures of the diatom *Synedra ulna*, *International journal of Scientific research and Reviews*.

Maya S, Mona s and Saraswathi M, 2019. Optimization studies on simple and effective methods extraction of C-Phycocyanin from *Spirulina platensis* L. *Asian journal of Biological sciences*

Kanaka Sunil Joshi, Chitalee Praveen Abhonkar , K. Satheesh Kumar and **Maya Subramoni** 2019. Nutritional evaluation and utilization of *Ulva fasciata* Delile for preparation of mineral rich candies. *Seaweed Res. Utlzn*.

SEMINARS/PROCEEDINGS

- Nair, N. B., Sobha, V., Chandran, R., Rathi Ammal, M., **S. Maya** & H. Suryanarayanan. Algal Resources of Kerala V. Protein and Lipid Contents of some Algae along the South-west coast of India. Proc. 3rd Kerala Science Congress, Calicut, pp. 103 – 105
- Nair, N. B., Sobha, V., Chandran, R., Rathi Ammal, M., **S. Maya** & H. Suryanarayanan, 1987. Vertical Distribution of Certain Algae and other Organisms in a Brackish Water Lagoon in Kerala. Proc. Natn. Sem. Estuarine Management Trivandrum. pp. 295-306
- S. Maya** & N. Balakrishnan Nair 1996. Ecology of Tropical Intertidal Rock Pools I. Hydrographical features of three Rock-pools at Kovalam, South-west Coast of India. Paper presented at the ‘Asia-Pacific Conference on Science and Management of Coastal Environment’. The University of Hongkong, Hongkong. Abstract No. S 12. 7
- Maya S.**, 1994. Effect of marine algal extracts on *Spirulina platensis* (Nordst.) Geitler. Paper presented at the “II Asia-pacific Conference on Algal Biotechnology-Trends and Opportunities”, Singapore University, Singapore. Abstract No. L. 36
- Anil Kumar, B., **S. Maya**, S. Prameela and V. Sarojini Menon, 1998. Biodiversity of a few Temple Tanks of Kerala and its Significance. Paper presented at the International Conference on Tropical Species, Communities and Ecosystems, Thiruvananthapuram, Abstract No. 4. 6
- V. Sarojini Menon, **S. Maya** and S. Kumari Prameela, 1999. Relevance of Religious Rituals and Ethnic Food to Local Health Tradition of Kerala. Paper presented at the V International Congress on Ethnopharmacology, National Botanical Research Institute, Lucknow, Abstract No. PD. 3.
- S. Kumari Prameela, **S. Maya** and V. Sarojini Menon 1999. Preservation and Multiplication of Medicinal Plants in and around Sacred Tanks of Kerala. Paper presented at the V International Congress on Ethnopharmacology, National Botanical Research Institute, Lucknow, Abstract no. P. 1. 19.
- S. Maya**, S. Kumari Prameela and V. Sarojini Menon. 2000 Biodiversity Conservation and certain Eco-sociological Aspects of Selected Temple Tanks of Southern Kerala. Proceedings of 12th Kerala Science Congress, Peerimedu, Kerala.
- S. Maya**, V. Sarojini Menon and A. G. Pandurangan. 2000. Floral Biodiversity of Chittar River, Palode, Thiruvananthapuram district, Kerala (India). Proceedings of the Workshop on Watershed Management, CWRDM, Calicut, pp 115-125

S. Maya, S. Kumari Prameela & V. Sarojini Menon, 2001. Quality Profile of Selected Temple Tanks of Southern Kerala. A Case Study. Proceedings of 13th Kerala Science Congress, Thrissur, pp 511-517.

S. Maya, S. Kumari Prameela & V. Sarojini Menon, Studies on extraction, isolation and characterization of bioactive compounds from the aquatic weed *Cabomba caroliniana* A. Gray. Presented for the International Conference on Ecosystem Conservation, Climate change and Sustainable Development, 3-5 Oct 2013, Thiruvananthapuram, Kerala, India.

Participated in the continuing Education Program on **“Product Design & Business Model”** organized by the Centre for Social Innovation and Entrepreneurship from 27th June to 29th July 2017

Participated in the **National Seminar On Seaweed Cultivation, Processing & Utilization**, 16th September 2017, NIOT, Chennai

Participated in the **India International Science Festival 2017**. 13 – 16 October 2017, Chennai

Participated in the **“Dialogues at the Science-Society Interface: Some Contemporary issues and themes – A Conference in memory of Prof. C.V. Seshadri**, 8-10 Feb. 2018, IIT Madras Research park, Taramani, Chennai.

Participated in the **International Conference on Sustainable Biofuels 2018**, 26 – 29 Feb. 2018, New Delhi

Participated in the **International Conference on Sustainable Biofuels 2018**, 26 – 29 Feb. 2018, New Delhi

Participated in the **Conference on Technologies for Energy and water**, 7-9 March 2019, NIOT, Chennai

Participated in the **2nd international Seaweed Expo & Summit**, 22-24 January, Mumbai

Participated in the **3rd International Seaweed Expo & Summit**, NIOT, Chennai. 30-31 Jan 2020

Participated in **International Symposium on Biodiversity, Biology and Biotechnology on Algae**, 8-10 January, CAS in Botany Chennai

Delivered a **Key note talk** for National Seminar on “**Recent Advancements in the field of Bioenergy and Bioproducts** (RABB – 17), 26th 27th September 2017, Department of Biotechnology, Bannari Amman Institute of Technology, Sathyamangalam, Erode.

Delivered a special lecture entitled “**Plant Power – Bioenergy to Fuel the Future**”, for final year Engineering students. St. Joseph’s College, Chennai, 29th June 2018.

Delivered a special lecture in International webinar on “**Recent Trends in Algal Biotechnology**”, 10.03.2021, Department of Plant Sciences, Nirmala College for Women, Coimbatore

REPORTS

Nair, N. B., V. Sobha, R. Chandran, M. Rathi Ammal, **S. Maya** and H. Suryanarayanan. 1988. Algal Resources of Kerala coast and their economic utilization. Tech. Report submitted to the Department of Environment, Govt. of India. pp. 62 .

S. Maya., V. Sarojini Menon & A. G. Pandurangan. 1998. A preliminary approach to the analysis of Chittar, a perennial stream in Nedumangad taluk, Thiruvananthapuram, Kerala dt. Status report submitted to Tropical Botanic Garden & Research Institute, Palode, Thiruvananthapuram, pp. 25.

V. Sarojini Menon, **S. Maya** & S. Prameela. 2001. ‘Biocoenosis of temple tanks of southern Kerala – A case study.’ Technical report submitted to the State Committee on Science, Technology & Environment, and Govt. of Kerala. pp. 63

Maya Subramoni. 2006. On the Biodiversity of Vamanapuram River and Kadinamkulam Lake of Kerala – A Case Study. Report submitted to Human Resources Division, CSIR, New Delhi, pp 40

Iyer, C. S. P., **Maya Subramoni**, Vijayalekshmi Amma B et al., 2004. Manual for Training Programme on Biological Oceanography Onboard CRV Sagar Purvi, RRL, Thiruvananthapuram, pp 53

Iyer, C. S. P., Vijayalekshmi Amma, B., **Maya Subramoni** et al., 2005. Ecological impact of Tsunami on the near shore western coasts of Kerala and Tamil Nadu, Report submitted to DOD, Govt. of India. RRL, Thiruvananthapuram, Kerala, pp. 22

Iyer, C. S. P., Vijayalekshmi Amma, B., **Maya Subramoni** et al., 2005. Studies on algal bloom along the southwest coast of India, Report submitted to DOD, Govt. of India. RRL, Thiruvananthapuram, Kerala

Maya Subramoni, 2010. Algal resources of South-west coast of India – Systematic study and evaluation as food and food supplements. Report submitted to Department of Science and Technology, Gov. of India, pp32

Maya Subramoni, 2015. Studies on Antiarthritic, Antioxidant and Antiinflammatory Properties of Marine Algae of Southern India. Report submitted to Department of Science and Technology, Gov. of India, pp41

TEACHING EXPERIENCE:

Having over 12 years of teaching experience in Biotechnology and Botany, as given below:

- 9 years as faculty - teaching Plant Systematics, Plant Physiology, Plant Anatomy, Algal Biotechnology and Cell Biology for PG students in Mar Athanasios College for Advanced Studies, Tiruvalla (April 2006 - till date).
- 6 years as faculty – Tropical Green School Programme, International Institute of Scientific and Academic Collaboration, Newark, NJ (April 2008-till date).
- 3 years as Pool Scientist – guiding projects in Plant Biotechnology leading to M. Sc degree, classes and talks/presentations to summer trainees and other research students, in the Regional Research Laboratory, Trivandrum (April 2003 – March 2006).
- 2 years as Research Associate – Conducting, classes on Ecological Education, exhibitons and talks on medicinal plants, for high school, graduate and PG students, in the Tropical Botanic Garden and Research Institute, Palode, Trivandrum (1998 - 2000).

RESEARCH EXPERIENCE

- 33 years of research experience in the field of taxonomy, ecology biochemistry/technology of marine, estuarine and freshwater algae. The 4-year PhD programme was centred on the biodiversity & ecology of flora and fauna of coastal belt of Kerala.
- 7 years working experience in microbial analyses of water, current areas of interests are, antimicrobial assays to determine activities of various plant extracts, especially algae, against bacteria and certain phyto-pathogenic fungi; anti-arthritic compounds from marine algae; separation and identification of bioactive compounds using various methods.

INDUSTRIAL EXPERIENCE

- While working for Khoday group of Industries, Bangalore, extensive work was carried out on algal biotechnology – mass cultivation of 3 species of *Spirulina* were carried out using a number of synthetic as well as natural media like brewery effluent and press-mud extract with optimization of growth conditions. Extensive survey and research were carried out to analyze the possibilities of making value-added products from *Spirulina*.
- At MCRC, currently involved in the initiative to combat air and water pollution from sugar industries, by developing a small scale algae based sugar effluent treatment and CO₂ sequestration facility in the E.I.D. parry premises at Nellikuppam, Cudalore dt. This facility is running successfully for the past 6 years recording significant reduction in physico-chemical parameters such as COD & sugar (80-85%) as well as reduction in TDS, EC & salinity (50-60%). On an average 0.3 to 0.5 kg of algal biomass is being generated per m³ of effluent every day
- At MCRC also involved in the work on use of dry algal biomass generated at pilot-scale waste water treatment system at EID parry (I) Ltd, Nellikuppam, Cuddalore dt., as potential feedstock for biogas production (ABM) during co-digestion with press mud or bagasse through addition of different methanogenic consortia to accelerate the anaerobic process. The present work provides the basic scientific data for further development of pilot-scale biogas production systems using algal biomass and other agri wastes

EXPERIENCE ON SOCIETAL WORK

Involved in MCRC's various community development programmes to deliver sustainable solutions to rural communities located in Tamil Nadu

- . As Investigator of a DBT project on “Revival of backyard cultivation of *Spirulina*”, was involved with construction of 27 nos. of *spirulina* tanks (Size: 20 ft x 10 ft x 1.5ft) in the premises of selected beneficiaries & NGOs covering 16 different districts of Tamil Nadu. A hands-on training programme on *Spirulina* cultivation and harvesting was given and so far 25 beneficiaries have been trained and are able to continuously cultivate and harvest *spirulina* in their own backyards, for income generation and as health supplement.

- The non-availability of good quality fodder in villages is a serious issue for local cattle owners. In order to address this, training on Azolla production was imparted to 100 farmers of Cuddalore dt., who depend upon the income from milk for their subsistence by MCRC. Azolla cultivation tanks were established in the backyards of houses of 33 families and they were educated on the maintenance of the tanks. These farmers now produce Azolla and administer to their cattle as feed. These communities thus have a higher profit obtained through sale of increased good quality milk from Azolla fed cows.

PROJECTS UNDERTAKEN

- *Biocoenosis of Temple Tanks of Southern Kerala: A case Study*: Sanctioned by Kerala State Council for Science, Technology & Environment, Kerala, India (1998 – 2001)
- *On the Biodiversity conservation of Vamanapuram River & Kadinamkulam Lake of Kerala – A Case Study*: Sanctioned under the pool Scientists scheme of CSIR, Govt. of India. (2003 – 2006)
- *Algal resources of south-west coast of India – Systematic study and evaluation as food and nutritional supplements*: Sanctioned by DST, Government of India (2007-2010)
- *Studies on Antiarthritic, Antioxidant and Antiinflammatory properties of marine algae of Southern India*: Sanctioned by DST, Government of India (2013-2015)
- Training on Small Scale backyard Cultivation of Spirulina for selected NGOs from various districts of Tamil Nadu – as an income generating activity and for consumption as a Health Supplement - Department of Biotechnology, Government of India, new Delhi, India (2014-17) at MCRC, Chennai
- Large scale cultivation of microalgae for biofuel. Department of Biotechnology, Government of India, new Delhi, India (2018-2020), at MCRC, Chennai
- Bioactive compounds from medicinal mushroom *Ganoderma lucidum*. Government of India, New Delhi, India at MCRC, Chennai

DETAILS OF PROJECT STUDENTS/INTERNS SUPERVISED

Name of student(s)	Degree*	Area of research	Duration	year
Tara George Mar Ivanios College Trivandrum	MSc	Antimicrobials from marine algae	7 months	2003
Srikala KG MACFAST, Tiruvalla, kerala	MSc	Plant extracts with pesticidal properties	6 months plus	2011
Rosmy Antony MACFAST, Tiruvalla, kerala	M.Sc.	Utilization of marine alga <i>Ulva fasciata</i> as nutritional supplement	6 months	2014
L. Archana Jeppiar Engineering College, chennai	B.Tech.	Organic cultivation of Spirulina	3 months plus	2019
Sri vinaya S CAS in Botany, Chennai	MSc	Axenic culture preparation of diatoms	6 months	2017
Pushpak Waskle IITM, Chennai	B.Tech	Value added products from Scoby layer	3 months	2018
Monesh M IITM, Chennai	B. tech	Simple water filters using diatomaceous earth	4 months	2018
Fakhruddin Shaukat P Hindustan Institute of Technology & science	MSc	Algal pigments for textile dyeing	8 months	2018
Anandan K Univ. of Madras	MSc	Biosilica for drug delivery	8 months	2018

Anitha S	MSc	Biosilica as mordants in textile dyeing	6 months	2018
Hariharan S D.G.vaishnav college, Chennai	MSc	Standardization of Phycocyanin extraction from Spirulina	8 months	2019
Maha Lekshmi Meenakshi College, Chennai	B.Sc	Synthesis of Ag nano particles from Spirulina	3 months plus	2019
Hentry B & Rajyalakshmi	MSc	Phycoremediation of textile effluent with algae	6 months plus	2018
J.P. Prithika & Jeppiar Engineering College, Chennai	B.Tech	Formulation of Biofertilizer using Vegetable Wastes	3 months plus	2019
Nithya Rani D.G.vaishnav College, Chennai	MSc	Production of Prodigiosin Pigment from Serratia sp.	6 months plus	2019

MPhil Project

- Minu Vijayan, 2013. Studies on extraction, Isolation and Characterization of bioactive compounds from the aquatic weed *Cabomba caroliniana* A. Gray, MACFAST, Tiruvalla

PhD Project

Organic cultivation of ganoderma lucidum and its anticancerous properties – ongoing (University of Madras)

ACADEMIC VISITS TO FOREIGN COUNTRIES

- 1994 – Visited University of Singapore, Singapore to participate and present a paper for the “Asia-pacific Conference on Algal Biotechnology – trends and opportunities”
- 1996 – visited University of Hongkong to participate and present a paper for the “Asia – pacific Conference on Coastal Management”
- August 1998 – Visiting scientist to Rutgers’s university, New Jersey, United States, to study alternative technologies in algal mass cultivation using photobioreactors
- September 2015 – Visiting scientist to the School of Botany, Melbourne University, Melbourne, Australia

DUTIES/ AREAS OF RESEARCH INTERESTS (2015 TO 2020)

- Team member MCRC – Rural Development (MRDP) Programme
- Investigator for two DST sponsored projects on algae and mushroom
- Mentoring postgraduate/ Ph.D students of Biotechnology/ Biosciences, guide project students/interns
- Aquatic ecosystems of Tamil Nadu with special reference to their biodiversity and algal pigments
- Extraction and identification of bio-active compounds from marine and freshwater algae

OTHERS

- Recognized as a Ph.D. guide by University of Madras
- Member of editorial team –Annual Report AMM MCRC, Chennai 2017-18
- Member-Advisory committee of International Conference on Technological Advancements in Materials, Design, Manufacturing and Energy Sectors (ICTAMDMES 2020), Chennai
- Co-ordinator, Inhouse Seminar at MCRC 2016 to 2018
- Supporting staff, DST core support programme, MCRC