



Name : **Dr. G. Mahendra Perumal, M.Sc., B.Ed., Ph.D.,**

Department : Department of Environmental Sciences

Designation : Assistant Professor

Address : 6/538/2, Pethaatchi Nagar Main Road,
Madurai Road,
Virudhunagar- 626001.

Phone : 04562-280154

Email : evs@vhnsnc.edu.in

Mobile : 7200752013

Experience in Teaching : 2 years

Experience in Research : 8 years

Education Qualification :

| S. No. | Degree | Institution | Year | Percentage |
|--------|--|--|-----------------------------------|------------------------------------|
| 1 | Ph.D. Botany (Specialization: Phycology) | Centre for Advanced Studies in Botany, University of Madras, Chennai. India. | Submitted -2007 Awarded - 2008 | Highly commended |
| 2 | B.Ed. | Sri Ramakrishna Mission Vidyalaya College of Education, Periyanaickapalayam (Bharathiyar University) Tamil Nadu, India | 1999 - 2000 | 71.2 |
| 3 | M.Sc. Botany | Ayya Nadar Janaki Ammal College, Sivakasi (Madurai Kamaraj University) Tamil Nadu, India. | 1997 -1999 | 73.9 (Gold Medalist) |
| 4 | B.Sc. Botany | Vivekananda College; Thiruvadakam (Madurai Kamaraj University), Tamil Nadu, India. | 1994 -1997 | 71.0 |

Titles of Dissertation

M.Phil. : -

Ph.D. : **Biodiversity of fresh water algae of Tamil Nadu and Molecular taxonomy of two genera of Cyanobacteria (Blue Green Algae)****Areas of Specialization:**

Algal Biodiversity, Bioremediation and Biofuel Production

Research Projects:

| Sr. No. | Title | Cost (Rs) | Duration | Agency | Category |
|----------------|--|------------------|-----------------|---|-----------------|
| 1 | Screening and improving biomass production and lipid accumulation of microalgae from estuary region (Khambhat, Gujarat) by conventional approach. (PI) | 44,22,440 | 2011-2013 | DST | Major |
| 2 | Biochemical engineering of microalgae for enhanced lipid accumulation. (PI) | 2,12,000 | 2012-2014 | ICAR | Minor |
| 3 | Biomass and lipid accumulation of microalgae grown on distillery/dairy wastewater as a possible feedstock for biodiesel.(PI) | 5, 82,400 | 2012-2014 | ICAR | Minor |
| 4 | Use of mutagenesis to improve the economics of cellulases production by an in-house isolate. (PI) | 3,30,000 | 2012-2014 | ICAR | Minor |
| 5. | Development of an economically viable process technology for detoxification of Jatropha de-oiled cake and simultaneous fuel gas production.(Co-PI) | 47,62,000 | 2011-2014 | DST | Major |
| 6. | Bioremediation of dairy wastewater by microalgae | 6,00,000 | 2014-2016 | Gujarat Council of Science and Technology (GUJCOST) | Minor |

Seminars Organized as convenor / co-ordinator : 1

- **Mahendra Perumal, G.** February 7-8th, 2008. National Conference on Current Trends in Algal Biodiversity and Biotechnology held at Centre for Advanced Studies in Botany, University of Madras, Chennai.

Workshop Organized as convenor / co-ordinator : 1

- **Mahendra Perumal, G.** February 22-28th 2007. National “Workshop on Taxonomy of Algae” held at Centre for Advanced Studies in Botany, University of Madras, Chennai.

Seminars, Workshops and Conferences Attended:

- **Mahendraperumal Guruvaiah**, Deval Shah, Puneet Kavadia Presented a paper on “Biomass and lipid accumulation of microalgae grown on dairy wastewater as a possible feedstock for biodiesel” National seminar on Algae for sustainable agricultural production on September 29-30, 2014, at Department of agricultural Microbiology, Tamil Nadu Agricultural University, Madurai. (PP-77)
- **Mahendraperumal Guruvaiah**, Garima Dixit, Deval Shah and Murari Shyam, “Optimize *in-vitro* conditions for the growth of estuary microalgae and their screening for oil/fat content” presented a research paper in the 48th Annual Convention of Indian Society of Agricultural Engineers (ISAE) and Symposium on Engineering Interventions in Conservation Agriculture, on February 21-23, 2014 at College of Technology and Engineering, Maharana Pratap University of Agriculture and Technology, Udaipur.
- **Mahendraperumal, G.** attended the workshop on “Biofuels and RNAi” organized by International Centre for Genetic Engineering and Biotechnology (**ICGEB**), New Delhi during 25th February 2013.
- **Mahendra Perumal, G.** Florenal Joseph, Dr. Tanner Schaub Sophia Registe and Dr. Juergen Polle, July 17-20th, 2011. Presented a poster on Isolation, screening and Characterization of Novel strains of microalgae for Biofuels production” held at St. Louis, USA.
- **Mahendra Perumal, G.** September 27-30th, 2010. Attended the “Algae Biomass Submmit” held at Phoenix Arizona, USA.
- **Mahendra Perumal, G.** February 7-8th, 2008. Presented a paper on “Desmids (Zygnematales, Chlorophyceae) of Tamil Nadu State, India” In: National

Conference on Current Trends in Algal Biodiversity and Biotechnology held at Centre for Advanced Studies in Botany, University of Madras, Chennai.

- **Mahendra Perumal, G.** February 7-8th, 2008. Presented a poster on “Molecular Taxonomy of Algae” In: National Conference on Current Trends in Algal Biodiversity and Biotechnology held at Centre for Advanced Studies in Botany, University of Madras, Chennai.
- **Mahendra Perumal, G.** February 22-28th 2007. Attended the National “Workshop on Taxonomy of Algae” held at Centre for Advanced Studies in Botany, University of Madras, Chennai.
- **Mahendra Perumal, G.,** Ganesan, V. and N. Anand. February 14-15, 2006. Presented a poster on “Biodiversity of fresh water Algae in some districts of Tamil Nadu” International Conference on Applied Phycology Algae in Biotechnology and Environment New Delhi.
- **Mahendra Perumal, G** and N. Anand, 3-7, January 2005. Presented a poster on “Biodiversity of fresh water Algae in Tamil Nadu” in the 92nd Indian Science congress held at Nirma University, Ahmedabad.
- **Mahendra Perumal, G** and N. Anand, September 8-9, 2004. Presented a poster on “Biodiversity of fresh water Algae in Tamil Nadu II” In: National symposium on Biology and Biodiversity of freshwater algae held at Centre for Advanced Studies in Botany, University of Madras, Chennai.
- **Mahendra Perumal, G,** Ezhilarasi, A. Ganesan, V. and N. Anand, March 11-13, 2004. Biodiversity of freshwater algae in Tamil Nadu. In: National symposium on Microalgal Biotechnology held at Bharathidasan University Trichirappalli, Tamil Nadu.
- **Mahendra Perumal, G** Attended the National Symposium February 25-27, 2003. on "Cyanobacteria and plants under environmental stress: Responses, defense strategies and biotechnological prospects at Banaras Hindu University, Banaras, India

Books Published:

- **G. Mahendraperumal** and N. Anand, 2008. **Manual of Freshwater Algae of Tamil Nadu.** Bishen Singh Mahendra Pal Singh, Dehra Dun, India pp, 1-134 (ISBN 81-211-0694-8)

Research Publications:

- **G. Mahendraperumal** and N. Anand 2008. Diversity of Desmids (Zygnematales, Chlorophyceae) from Tiruchirappalli district of Tamil Nadu, *Indian Hydrobiology*, Vol, 11(2), pp.261-270.
- Nagaraj, S., Sundarapandian, SM., **Mahendraperumal, G.**, Anand, N and Rengasamy, R. 2008. Pharmacognostical studies on *Pedaliium murex* Linn. (Anauerunji). *Indian Journal of Botanical Research*, 4: 223-232. (ISSN- 0973-2233)
- **G. Mahendraperumal**, V. Ganesan and N. Anand 2009. Identification and phylogenetic analysis of filamentous Cyanobacteria using random amplified polymorphic DNA (RAPD) fingerprinting, Vol. 8 (6), pp. 974-978, *African Journal of Biotechnology* (ISSN: 1684-5315 impact factors 0.565).
- **G. Mahendraperumal** and N. Anand, 2010. Phylogenetic Evaluation of the Genera of *Oscillatoria* and *Lyngbya* spp using Amplified Ribosomal DNA Restriction Analysis (ARDRA) and Enterobacterial Repetitive Intergenic Consensus (ERIC) *Journal of Pure and Applied Microbiology*, Vol.4(1), pp. 161-167. (ISSN: 09737510-(Impact factor 0.073)
- Kandiah Anandarajah, **G. Mahendraperumal**, Milton Sommerfeld, and Qiang Hu, 2011. Induced freezing and desiccation tolerance in the microalgae wild type *Nannochloropsis* sp. and *Scenedesmus dimorphus*. *Australian Journal of Basic and Applied Sciences* 5(5): pp 678-686. (ISSN: 19918178).
- Kandiah Anandarajah, **G. Mahendraperumal**, Milton Sommerfeld, and Qiang Hu, 2012 Characterization of Microalga *Nannochloropsis* sp. mutants for improved production of biofuel. *Applied Energy*. 96: 371–377 (Impact factor 5.2).
- **Mahendraperumal Guruvaiah**, Keesoo Lee. 2014. Utilization of flue gas from coal burning Power Plant for Microalgae Cultivation for Biofuel Production. *International Journal of Innovative Technology and Exploring Engineering* Vol-3 (8) 7-10. (ISSN: 2278 – 3075-Impact factor 1.0)
- **Mahendraperumal Guruvaiah**, Keesoo Lee. 2014. Effect of flue gas on microalgae population and study the heavy metals accumulation in biomass from power plant system. *International Journal of Applied Science and Biotechnology*, Vol 2(2) 114-120. (ISSN: 2091 – 2609-Impact factor 3.41)
- **Mahendraperumal Guruvaiah**, Deval Shah, Ekta Shah 2014. Biomass and lipid accumulation of microalgae grown on dairy wastewater as a possible feedstock for biodiesel production. *International Journal of Science and Research* (Vol.2 (12) 909- 913. (ISSN- 2319-7064- Impact factor : 4.4)

- **Mahendraperumal Guruvaiah**, Madhuri Narra, Garima Dixit, Punit Karawadia and Deval Shah, 2015. Isolation, screening and optimization of estuary region (Khambhat, Gujarat) Microalgae for Lipid/oil production. *International Journal of Applied Science and Biotechnology*, Vol 3(2) 197-201. (ISSN: 2091 – 2609-Impact factor 3.41)
- **Mahendraperumal Guruvaiah**, Madhuri Narra, Ekta Shah, Jisha James and Anil Kurchania 2015. Utilization of dairy wastewater for pollutants removal and high lipid biomass production by a newly isolated microalgal strains *Chloromonas playfairii* and *Desmodesmus opoliensis*. *International Journal of Applied Science and Biotechnology*, Vol 3(4): 699-707 (ISSN: 2091 – 2609-Impact factor 3.41)

Co-Ordinator : B.Voc. Programme (UGC supported)

Honours Achieved: Post Graduation secured First class with Gold medalist.

Extension Activities:

- National Cadet Corps (NCC) Cadet during 1994-1996 with a 'B' Certificate. Attended Annual Training Camp held at REC, Trichirapalli.
- Computer knowledge – Windows OS, MS- Office, Adobe Photoshop. Diploma in Computer Applications (DCA) Certificate.
- Certificates of Journalism, Scout Master, Gandhian Thought, Social Service League, Cultural Studies and Literacy activity.
- Certificates of Cross-country race and other athletic activities.