



Name: Dr Polur Hanumantha Rao
Designation: Associate Professor
Education:
B.Sc. (University of Madras, 1995)
M.Sc. (Madurai Kamaraj University, 1997)
Ph.D. (University of Madras, 2009)

hanumantharao@mcc.edu.in;
dr.phrao@gmail.com

[https://orcid.org/
0000-0002-8499-3331](https://orcid.org/0000-0002-8499-3331)

Highlights

Featured Publication

<https://www.sciencedirect.com/science/article/abs/pii/S0960148121005115>

Positions

- Associate Dean of Research (Sciences)

BRIEF BIO-DATA

Dr P. Hanumantha Rao completed his Ph.D. in Microalgal Biotechnology from the University of Madras in the year 2009. His doctoral research was focused on implementing phycoremediation technology for treating industrial wastewaters at the pilot/industrial scale. He joined Madras Christian College in 2012 and his current research interests are mass cultivation and biomass production of freshwater and marine microalgae, carbon biosequestration using microalgae, and phycoremediation. During 2010-12, Dr Rao was in-charge of algae biofuels pilot plant of Aban Infrastructure Pvt. Ltd. (Biotechnology Division), Chennai, and worked in association with Murdoch University, University of Adelaide, SQC Pty. Ltd. Australia, and Muradel Pty. Ltd. Australia. He has published many papers in reputed journals in the field of algal biotechnology. He also has high impact articles to his credit, and has filed three patents and one international patent. He is now collaborating with an algal industry for technology transfer to commercialize one of his filed patents. Dr Rao serves in the editorial board of Indian Hydrobiology and serves as a reviewer for many reputed journals published by Nature, Elsevier, Springer Nature, Taylor & Francis, Wiley, CSIR-NISCAIR, and Krishnamurthy Institute of Algology (UGC-CARE). He is a recognized research supervisor in Microbiology of the University of Madras for the Ph.D. programme, and guides students in the area of Algal Biotechnology. He served as a technical expert (microbiology) for TÜV SÜD Management Service GmbH, Munich, Germany, from 2016 to 2022.

DETAILED RESUME

RESEARCH INTERESTS

Broad interest:

Algal Biotechnology, Environmental Microbiology

Specific areas:

Phycoremediation of wastewaters (pilot- and industrial scale) and mass cultivation of microalgae. Recent interests include cost-effective immobilized cultivation of microalgae for ease of harvesting, and CO₂ biocapture using microalgae; and development of economically and environmentally sustainable systems for waste management, biomass production, biofuels, and other products of value addition, using microalgae. Research interests are in line with UN SDGs 6, 7 and 13.

RESEARCH CONTRIBUTIONS

1. Validation of a novel photobioculture device (pilot-scale) for enhanced areal biomass production and super capture of CO₂.

2. Developed an ecofriendly formulation to control algal blooms/nuisance algae in natural water bodies, swimming pools and cooling towers.
3. Developed a filter-based phycoremediation process for industrial phycoremediation / polluted lotic systems / biomass generation.
4. Developed a rapid method for estimation of microalgal biomass.
5. Devised an integrated electroprecipitation and pressure filtration system for large-scale continuous high-efficient harvesting of microalgae biomass.
6. Natural, synthetic and composite substrates for bacterial biofilm formation / microalgal biofilm formation.
7. Enhanced phycoremediation using activated microalgae, and integrated open systems.
8. Proposed a hypothesis for phycovolatilization of heavy metals by microalgae.
9. Conducted feasibility studies for growing microalgae in effluents of various industries.
10. Conducted *in situ* pilot-scale industrial effluent treatment studies using microalgae.

PATENTS FILED

1. A Novel Photobioculture Device. Indian Patent Office (Filed – May 2022; Published – Nov 2023). Indian Patent Application No. 202241026203; **International PCT filing** (May 2023), PCT/IN2023/050436 – Published Nov 2023.
2. Herbal Composition for Prevention and Control of Algal Growth and Process of Preparation thereof. Indian Patent Office (Filed – May 2022; Published – Nov 2023). Indian Patent Application No. 202241028091.
3. A Phycoremediation Reactor and A Process thereof. Filed at Indian Patent Office (Filed – May 2022; Published – Dec 2023). Indian Patent Application No. 202241030328.

INDUSTRY COLLABORATION

NDA signed between MCC and Algae Global Innovation Enterprises during April 2023, for exploring the commercialization prospects and possible technology transfer for one of the patents filed.

JOURNAL EDITORIAL/REVIEWING

- i) Member of the Editorial Board in Indian Hydrobiology (UGC-CARE List Group I).
- ii) Reviewer for Scientific Reports (Nature), Electronic Journal of Biotechnology (Elsevier), International Journal of Phytoremediation (Taylor and Francis), Indian Hydrobiology (Krishnamurthy Institute of Algology), Indian Journal of Experimental Biology (CSIR-NISCAIR), Environmental Science and Pollution Research (Springer), 3 Biotech (Springer), Clean Technologies and Environmental Policy (Springer), World Journal of Microbiology and Biotechnology (Springer), Discover Applied Sciences (Springer), CLEAN – Soil, Air, Water (Wiley), and for an Edited Book Proposal by Springer Nature.

PUBLICATIONS

Book Chapters

Hanumantha Rao P, Ranjith Kumar R, Mohan N (2019). Phycoremediation: Role of Algae in Waste Management. In Microorganisms for Sustainability, Vol.14: Environmental Contaminants: Ecological Implications and Management [Ed. Ram Naresh Bharagava, Springer Nature, Singapore]. pp. 49-82.

Chinnasamy S, Hanumantha Rao P, Bhaskar S, Rengasamy R, Singh M (2012). Algae – A Novel Biomass Feedstock for Biofuels. In Microbial Biotechnology: Energy and Environment [Ed Rajesh Arora, Commonwealth Agriculture Bureaux International (CABI), UK], pp. 224-239.

Journals

- Prathiksha K, Evangelien Priyadarshini S, Judah Jacob, Allwin Vinoth J, **Hanumantha Rao P** (2023). Microalgal Pigments as Natural Hues in Environmentally-Sustainable and Commercially-Prospective Biopaints. *Journal of Applied Phycology*, <https://doi.org/10.1007/s10811-023-03124-7>.
- Mohan N, Hanumantha Rao P, Baskara Boopathy A, Rengasamy R, Chinnasamy S (2021). A Sustainable Process Train for a Marine Microalga-mediated Biomass Production and CO₂ Capture: A Pilot-scale Cultivation of *Nannochloropsis salina* in Open Raceway Ponds and Harvesting Through Electroprecipitation. *Renewable Energy*, 173, 263-272.
- Zimba S, Sathish Kumar T, Mohan N, Hanumantha Rao P (2021). Evaluation of Various Waste Substrates for Biofilm Formation and Subsequent Use in Aerobic Packed-Bed Reactor for Secondary Treatment of Domestic Wastewater. *World Journal of Microbiology and Biotechnology*, 37(2), 25.
- Nithiya A, Hanumantha Rao P, Sathish Kumar T (2016). Bioremediation of Aquaculture Wastewater Using Nitrifying Bacteria–Microalga Consortium with Special Reference to Ammoniacal Nitrogen. *International Journal of Current Research and Academic Review*, 4(12), 164-177.
- Hanumantha Rao P, Sivasubramanian V (2016). Phycoremediation – Present and the Future. *Journal of Algal Biomass Utilization*, 7(3), 68–69.
- Thomas DG, Minj N, Mohan N, Hanumantha Rao P (2016). Cultivation of Microalgae in Domestic Wastewater for Biofuel Applications – An Upstream Approach. *Journal of Algal Biomass Utilization*, 7(1), 62–70.
- Ratha SK, Hanumantha Rao P (Co-first author), Govindaswamy K, Jaswin RS, Lakshmidevi R, Bhaskar S, Chinnasamy S (2016). A Rapid and Reliable Method for Estimating Microalgal Biomass Using a Moisture Analyser. *Journal of Applied Phycology*, 28(3), 1725-1734.
- Ranjith Kumar R, Hanumantha Rao P, Arumugam M (2015). Lipid Extraction Methods from Microalgae – A Comprehensive Review. *Frontiers in Energy Research*, 2, 1-9.
- Ranjith Kumar R, Hanumantha Rao P, Subramanian VV, Sivasubramanian V (2014). Enzymatic and Non-Enzymatic Antioxidant Potentials of *Chlorella vulgaris* Grown in Effluent of a Confectionery Industry. *Journal of Food Science and Technology*, 51(2), 322-328.
- Hanumantha Rao P, Ranjith Kumar R, Raghavan BG, Subramanian VV, Sivasubramanian V (2011). Is Phycovolatilization of Heavy Metals a Probable (or Possible) Physiological Phenomenon? – An In Situ Pilot-Scale Study at a Leather-Processing Chemical Industry. *Water Environment Research*, 83(4), 291-297.
- Hanumantha Rao P, Ranjith Kumar R, Raghavan BG, Subramanian VV, Sivasubramanian V (2011). Application of Phycoremediation Technology in the Treatment of Wastewater from a Leather-processing Chemical Manufacturing Facility. *Water SA*, 37(1), 7-14.
- Mohan N, Hanumantha Rao P, Ranjith Kumar R, Sivasubramanian V (2010). Mass Cultivation of *Chroococcus turgidus* and *Oscillatoria* sp. and Effective Harvesting of Biomass by Low-cost Methods. *Nature Precedings*, <http://dx.doi.org/10.1038/npre.2010.4331.1>.
- Hanumantha Rao P, Ranjith Kumar R, Subramanian VV, Sivasubramanian V (2010). Environmental Impact Assessment of *Chlorella vulgaris* Employed in Phycoremediation of Effluent from a Leather-processing Chemical Industry. *Journal of Algal Biomass Utilization*, 1(2), 42–50.

Mohan N, Hanumantha Rao P, Ranjith Kumar R, Sivasankaran S, Sivasubramanian V (2009). Studies on Mass Cultivation of *Chlorella vulgaris* and Effective Harvesting of Biomass by Low-cost Methods. *Journal of Algal Biomass Utilization*, 1(1), 29–39.

Vignesh M, Shivasankar S, Hanumantha Rao P, Ranjith Kumar R, Sivasubramanian V (2006). Phycoremediation of Effluents from Tannery and Pharmaceutical Industries – A Lab Study. *Indian Hydrobiology*, 9(1), 51–60.

Proceedings

Ranjith Kumar R, Hanumantha Rao P, Raghavan BG, Subramanian VV, Sivasubramanian V (2005). Studies on the Extraction and Purification of Pigments from the Effluent of an Alginate Industry. *Proceedings of National Symposium on ‘Microbial and Plant Biotechnology’* held at Loyola College, Chennai from 17th to 19th February 2005.

Conference Papers

Allwin Vinoth J, Judah Jacob, Suevetha R, Vijay Solomon R, Hanumantha Rao P (2023). Computational CO₂-Substrate Binding Studies for Evaluating Biomass Production and CO₂ Capture Potentials In Immobilized Microalgae Cultivation. Presented in the International Conference on “Algae: Food, Feed, Fuels and Fine Chemicals” organized by the Dept. of Microbiology, School of Life Sciences, Bharathidasan University, Tiruchirappalli, Tamil Nadu and National Repository for Microalgae and Cyanobacteria, Bharathidasan University, during 6th–8th September 2023.

Judah Jacob, Allwin Vinoth J, Varshavardhini M, Samson Lijoseraj C, Jayandan SA, Thangavel M, Hanumantha Rao P (2023). A Novel Integrated Reactor Supporting Suspending and Immobilized Microalgae Cultivation System for Phycoremediation of Sewage and Biomass Production. Presented in the 18th IAAM International Conference on “Converging Microbiological Innovation for application in Animal, Plant, Environment and Healthcare” (ICCMIA-2023) organized by the Dept of Animal Science, Manonmaniam Sundaranar University, Tirunelveli. Tamil Nadu, during 27.1.2023 and 28.1.2023.

Varshavardhini M, Judah Jacob, Allwin Vinoth J, Thangavel M, Hanumantha Rao P (2022). Phycoremediation of Domestic Wastewater and Biomass Generation Using a Novel Immobilized Microalgae Biomat Reactor. Presented in the National Conference on “Conservation of Marine Resources for Sustainable Development” organized under UGC STRIDE by V.O. Chidambaram College, Tuticorin, Tamil Nadu, during 25th and 26th August, 2022.

Neethu Wilson C, Allwin Vinoth J, Judah Jacob, Hanumantha Rao P (2022). Germination and Early-Stage Hydroponic Cultivation of a Few Edible and Flowering Plants Using Spent Medium from a Novel Microalgae Reactor. Presented in the National Conference on “Conservation of Marine Resources for Sustainable Development” organized under UGC STRIDE by V.O. Chidambaram College, Tuticorin, Tamil Nadu, during 25th and 26th August, 2022.

Prathiksha K, Evangelien Priyadharshini S, Judah Jacob, Hanumantha Rao P (2022). Use of Microalgal Pigments as Natural Hues in the Formulation of Commercially-Prospective Bio-paints. Presented in the National Conference on "Natural Resource Management for Sustainable Future" held at Ethiraj College for Women, Chennai during 26th and 27th April, 2022.

Geethanjali U, Hanumantha Rao P (2020). Enhanced Phycoremediation Of Domestic Wastewater Using Activated Algae Systems in High-Rate Algal Ponds. Poster presented in the Prof. T.V. Desikachary Birth Centenary International Symposium on “Biodiversity, Biology and Biotechnology of Algae” held at CAS in Botany, University of Madras, Chennai during 8th–10th January 2020.

Divya K, Judah Jacob, Samson Lijoseraj C, Jayandan SA, Ranjith Kumar R, Hanumantha Rao P (2020). Use of Liquid Seaweed Fertilizer as Microalgae Growth Enhancer Under Outdoor Cultivation Conditions. Poster presented in the Prof. T.V. Desikachary Birth Centenary International Symposium on “Biodiversity, Biology and Biotechnology of Algae” held at CAS in Botany, University of Madras, Chennai during 8th–10th January 2020.

Rebecca AO, Govindaswamy K, Hanumantha Rao P, Ratha SK, Chinnasamy S (2015). Impact of Salinity on the Physiological and Biochemical Traits of *Spirulina platensis*. Presented in the National Conference on ‘Biomass, Bioenergy and Bioremediation’ held at Madras Christian College, Chennai during 23rd and 24th February 2015.

Kansraj C, Minj N, Hanumantha Rao P (2013). Antioxidant, Antibacterial and Anticancer Activities of *Chlorella* sp. and *Selenastrum* sp. Isolated from Sewage. Poster presented in the National Conference on ‘Frontiers in Algology and Algal Biotechnology’ held at Visva-Bharati (A Central University), Santiniketan, West Bengal from 15th to 17th November, 2013.

Chinnasamy S, Bhaskar S, Hanumantha Rao P (2012). Biofuels from Algae: Technology Development Initiatives of an Industry in India. Poster presented in ‘Algae Biomass Summit’ held at Sheraton Denver Downtown Hotel, Denver, CO, USA from 23th to 27th September, 2012.

Hanumantha Rao P, Chinnasamy S, Bhaskar S, Rengasamy R (2012). Algae Biofuels in India – An Industry Perspective. Presented in the International Algal Summit on “Algae for Sustainable Development” held at TERI University, New Delhi during 21st and 22nd February 2012.

Chinnasamy S, Hanumantha Rao P, Bhaskar S, Walters R (2011). A Rapid and Reliable Method for Estimating Microalgal Biomass Using a Moisture Analyser. Poster presented in ‘Algae Biomass Summit’ held at Hyatt Regency, Minneapolis, MN, USA from 24th to 27th October, 2011.

Hanumantha Rao P, Ranjith Kumar R, Raghavan BG, Subramanian VV, Sivasubramanian V (2009). Phycoremediation of Effluent from a Leather-Processing Chemical Industry. Poster presented in the International Conference on ‘Algal Biomass – Resources and Utilization’ held at Stella Maris College, Chennai from 27th to 30th July 2009.

Mohan, N, Sivasankaran S, Hanumantha Rao P, Ranjith Kumar R, Sivasubramanian V (2009). Studies on Mass Cultivation of Microalgae and Effective Harvesting of Biomass by Low-cost Methods. Presented in the International Conference on ‘Algal Biomass – Resources and Utilization’ held at Stella Maris College, Chennai from 27th to 30th July 2009.

Muthukumaran M, Hanumantha Rao P, Ranjith Kumar R, Raghavan BG, Sivasubramanian V (2008). Occurrence of Microalgae in Wastewaters and Industrial Effluents. Presented in the National Conference on ‘Current Trends in Algal Biodiversity and Biotechnology’ held at CAS in Botany, University of Madras, Chennai during 7th and 8th February 2008.

Hanumantha Rao P, Raghavan B G, Subramanian VV, Sivasubramanian V (2006). SKY GEL – Application in Microalgal Cultivation and Phycoremediation. Presented in the National Symposium on ‘Algal Biodiversity and its Role in Bioremediation’ held at RKM Vivekananda College, Chennai from 23rd to 25th September 2006.

Raghavan B G, Ranjith Kumar R, Hanumantha Rao P, Muthukumaran, M, Subramanian VV, Sivasubramanian V (2006). Phycoremediation of Effluent from a Chemical Industry. Presented in the National

Symposium on 'Algae, Man and Biosphere' held at AVVM Sri Pushpam College, Poondi, Tamil Nadu during 24th and 25th February 2006.

Vignesh M, Shivasankar S, Hanumantha Rao P, Ranjith Kumar R, Sivasubramanian V (2006). Phycoremediation of Effluents from Tannery and Pharmaceutical Industries – A Lab Study. Presented in the National Symposium on 'Algae and Environment' held at RKM Vivekananda College, Chennai during 24th and 25th September 2005.

Ranjith Kumar R, Hanumantha Rao P, Raghavan BG, Subramanian VV, Sivasubramanian V (2005). Studies on the Extraction and Purification of Pigments from the Effluent of an Alginate Industry. Presented in the National Symposium on 'Microbial and Plant Biotechnology' held at Loyola College, Chennai from Feb 17th to 19th 2005.

Raghavan BG, Subramanian VV, Ranjith Kumar R, Hanumantha Rao P, Sivasubramanian V (2004). Phycoremediation of Industrial Effluent. Presented in the National Symposium on 'Algal Biology and Industrial Applications' held at RKM Vivekananda College, Chennai during 25th and 26th September 2004.

RESPONSIBILITIES HELD

In College

- Was a part of the team, which prepared the project proposal to USAID-ASHA for installation of 500 kva solar power plant in the campus; the project was sanctioned with a grant of Rs. 3.6 crore from USAID-ASHA during 2016.
- Entrepreneurship Development Cell Coordinator from Sept 2020 to May 2023.
- Member of the MCC farm committee since July 2020.
- Resource Person for MCC Research Colloquium team since 2020.
- Associate Dean of Research (Sciences) since July 2021.
- IQAC Criterion 3 member from August 2020 to May 2023.
- MCC-IIC Department faculty representative since 2021.
- Member of the School of Continuing Education Committee July 2021 – May 2023.
- Member of the MCC-MRF Task Force Committee.
- Member of the College IPR Cell (Constituted for Kapila Scheme).
- Enrolment Officer during 2017-2019.

In Department

- Instrumental in the formation of the Department Post Graduate Journal Club in 2016. • Served as the PG Journal Club Convener during 2016-2017.
- Initiated Environment, Health and Sanitation Club (EHS Club) in 2016, which conducts community-oriented and socially-driven activities.
- Served as the EHS Club Coordinator from 2016 to 2019.
- MagMeet Coordinator during 2019-20.
- IQAC Nodal Officer during 2020-21.
- IIC department faculty member from 2021.
- In-charge of Department newsletter "Micromerge" during 2016-17 and 2021-22.

RESOURCE PERSON/INVITED TALK

- Served as a Technical Expert (Microbiology) for TÜV SÜD Management Service GmbH, Munich, Germany, from 2016 to 2022.
- Served as a resource person in the National Seminar on "Navigating Consultancy, Filing Patent and Designing Research Article: Insights and Strategies" organized by Marian Research Forum and Internal Quality Assurance Cell, St. Mary's College, Thoothukudi on 20th January, 2024.
- Served as a resource person in the five-day training programme on "Research Integrity & Journal

Publications' organized by Internal Quality Assurance Cell and Research Cell, SDNB Vaishnav College for Women, Chromepet, Chennai, from 8th to 12th January, 2024.

- Served as a resource person for the School Project Day – Prayog Vividh at Shree Niketan Patasala, Agaram Then, Chennai, on 17th December 2023.
- Served as a resource person in the Faculty Development Programme on “Patents and Consultancy” organized by Internal Quality Assurance Cell and Joseph Start-up Centre, St. Joseph’s College, Tiruchirappalli, on 20th November 2023.
- Served as a resource person in the Online Workshop on “Introduction to Scientific Writing & Publishing” organized by Indian Maritime University on 6th and 7th November 2023 for faculty members.
- Served as a resource person in the “Research & Publication Ethics Course” organized by the Deanery Research & Development, Madras Christian College from 20th July to 03rd August, 2023.
- Served as a resource person in the Webinar on “Resources for Sustainability and Bioenergy” organized by the Department of Life Sciences, St. Peter’s Institute of Higher Education and Research, Chennai, on the 9th of June, 2023.
- Served as a resource person in the Webinar on “Research Methodology in Microbiology for Quality Publications” organized by the Department of Microbiology, Madras Christian College from 13th to 17th March 2023.
- Served as a resource person in the Conference on “Research in Novel Findings in Algal Biotechnology and Tuberculosis” organized by Adhiparasakthi College of Arts and Science, Kalavai, Vellore District, on the 20th of March 2023.
- Delivered a guest lecture on “Algal Biotechnology – Trends and Prospects” organized by the Department of Botany, JBAS College for Women, Chennai, on the 22nd of November, 2022.
- Served as a resource person in the online “Research and Scientific Writing” workshop organized by the Department of Microbiology, St. Joseph’s University, Bengaluru from 2nd to 5th November, 2022.
- Served as a resource person in the 5-day online workshop on “Manuscript Writing and Publishing” for the research scholars and faculty organized by the Deanery R&D, MCC, and MCC Research Colloquium from 12th to 16th of September, 2022.
- Delivered a guest lecture on “Algal Biotechnology – Challenges and Opportunities” organized by the Department of Microbiology, Hindusthan College of Arts and Science (City Campus), Coimbatore, on the 13th of September, 2022.
- Served as a resource person in the online Faculty Development Program on “The Nuances of Scientific Writing and Publishing” organized by All India Association for Christian Higher Education and Madras Christian College from 11th to 18th of July, 2022.
- Served as a resource person in the Workshop on “Nuances of Research Methodology” organized by the MCC Research Colloquium on 30th and 31st May, 2022.
- Served as an Examiner (Question paper setting) for Food Safety Officers Examination in Tamil Nadu Food Safety Subordinate Service (Medical Services Recruitment Board, Govt. of Tamil Nadu) during April, 2022.
- Served as a resource person in the Faculty Development Programme on “Publish and Flourish” jointly organized by Internal Quality Assurance Cell and MCC Research Colloquium, Madras Christian College, on 19th and 20th November, 2021.
- Served as a resource person in the Online Workshop on “Pitfalls and Pathways in Research: A Guided Workshop” organized by MCC Research Colloquium, Deanery (R&D) and Centre for Teaching & Learning of Madras Christian College held through 21-25 June, 2021.
- Served as a resource person in a Webinar on “Algal Biotechnology: Opportunities, Challenges and Sustainability” conducted by Nehru Arts & Science College, Coimbatore, on 17th of October 2020.
- Served as a resource person in the seven-day Virtual Workshop on “First Principles of Scholarly Writing in Drafting Manuscripts” held through 10th-17th of August, 2020, organized for college faculty by St. Christopher’s College of Education, Chennai, under UGC-PARAMARSH scheme.

- Served as a presenter for the sessions “Highlights of a Research Study – The Key to Determine Article Metrics” during July 2020, and “Indexing Databases and Research Metrics” during December 2022, and as a co-presenter for the sessions “Innovation and Entrepreneurship Ecosystem in MCC” during July 2021 and “Community Learning through Online Workshop” during August 2021, conducted by MCC Research Colloquium.
- Served as a resource person in the TNSCST-funded Workshop on “Dynamic Programme on Extraction of Natural Colourant as Value-added Products from *Spirulina* Biomass for Socio- and Economic Empowerment of Final Year Graduate Students” conducted by the Department of Botany, Madras Christian College, Chennai during February 2019.
- Co-chaired a session in the National Conference on “Vistas in Biodiversity, Biology, Biotechnology and Nanotechnology of Algae” conducted by the Department of Botany, Madras Christian College, Chennai/Seaweed Research and Utilization Association/Krishnamurthy Institute of Algology during September 2018.
- Delivered a talk on the topic “Significance of Biological Sciences in Industry/Research” in Adhiparasakthi College of Arts and Science, Kalavai, Vellore District, during August 2016.
- Inaugurated Science Club in DAV Boys Senior Secondary School, Gopalapuram, Chennai, during June 2015 and delivered a talk on “Avenues for Research in Biology”.
- Served as a chief guest for Microbiology Association and delivered an invited talk on the topic “Role of Microbiology/Life Science graduates in Industry/Research” in SRM Arts and Science College, Chennai, during March 2015.
- Chaired a session in the National Conference on “Biomass, Bioenergy and Bioremediation” conducted by the Department of Microbiology, Madras Christian College, Chennai during February 2015.