



Dr. HEMAMBIKA BALAKRISHNAN, M.Sc., Ph.D.,

Programme Officer
Environmental Information System (ENVIS) Centre
Sálim Ali Centre for Ornithology and Natural History (SACON),
Anaikatty, Coimbatore – 641108, INDIA
Email: hemajan11@gmail.com
Phone: 0422–2230129

Brief Curriculum Vitae

I obtained my bachelor's degree (Plant Biology and Plant Biotechnology) in the year 2005 and master's degree (Environmental Sciences) in the year 2007 from Bharathiar University, Coimbatore. I cleared National Eligibility Test for Lectureship in the subject “Environmental Sciences” thrice in June 2007; December 2007 and December 2008 conducted by University Grants Commission, National Educational Testing Bureau, New Delhi. I hold my PhD (Microbiology (Area: Environmental Microbiology)) from Bharathidasan University, Tiruchirappalli in the year 2013. I have been working in SACON ENVIS Centre as Programme Officer since September 2013.

Fields of Scientific Research Interest

- Bioremediation/Phytoremediation
- Waste Management
- Wastewater Treatment
- Environmental Impact Assessment

Ph.D., Thesis Title

Exploitation of Cr⁶⁺ Resistant Plant Growth Promoting Bacteria for the Innovation of Phytoremediation through *Crotalaria juncea* L.

M.Sc., Dissertation Title

Comparative study of Electro Coagulation and Chemical Coagulation in the Treatment of Effluents from Textile Industry

Awards and Achievements

1. “International Student Recognition Award” (March 14–17, 2011) for paper presentation in 21st Annual International Conference on “Soil, Water and Air” organized by The Association for Environmental Health and Sciences (AEHS) Foundation, San Diego, California, USA.
2. Received “International Travel Grant” (INR 1,07,680.22 /-) from Department of Science and Technology, Government of India to attend 21st Annual International Conference on “Soil, Water and Air” organized by The Association for Environmental Health and Sciences (AEHS) Foundation, San Diego, California, USA.

Publications in Peer-Reviewed Journals (Listed in JCR) with an Impact Factor

Average Impact Factor: **1.458**; Total Impact Factor: **4.374**; Total Citations: **53**; H-index: **3**

1. **Hemambika B.**, Balasubramanian V., Rajesh Kannan V. and Arthur James R. (2013) Screening of Chromium Resistant-Bacteria for Plant Growth Promoting Activities. *Soil and Sediment Contamination: An International Journal*. 22(7): 717–736 (**IF: 1.189**)
2. **Hemambika B.** and Rajesh Kannan V. (2012) Intrinsic Characteristics of Cr⁶⁺-Resistant Bacteria Isolated from an Electroplating Industry Polluted Soils for Plant Growth-Promoting Activities. *Applied Biochemistry and Biotechnology*. 167: 1653–1667 (**IF: 1.606**)
3. Balasubramanian V., Natarajan K., **Hemambika B.**, Ramesh N., Sumathi C.S., Kottaimuthu R. and Rajesh Kannan V. (2010) High-density polyethylene (HDPE)-degrading potential bacteria from marine ecosystem of Gulf of Mannar, India. *Letters in Applied Microbiology*. 51: 205–211 (**IF: 1.579**)

Other Scientific Publications

Total Citations: **87**; H-index: **2**

1. **Hemambika B.**, Johncy Rani M. and Rajesh Kannan V. (2011) Biosorption of heavy metals by immobilized and dead fungal cells: A comparative assessment. *Journal of Ecology and the Natural Environment*. 3(5): 168–175 (Cited by 39)
2. Rani M.J., **Hemambika B.**, Hemapriya J. and Rajesh Kannan V. (2010) Comparative assessment of heavy metal removal by immobilized and dead bacterial cells: A biosorption approach. *African Journal of Environmental Science and Technology*. 4(2): 77–83 (Cited by 48)
3. **Hemambika B.** (2014) Microbial remediation of contaminated wetlands – A Review. *ENVIS Newsletter on wetland ecosystems and inland wetlands, Sarovar Saurabh*, Sálim Ali Centre for Ornithology and Natural History (SACON), Coimbatore, INDIA. 10(2): 1–5
4. **Hemambika B.**, Julffia Begam A., Kirubhanandhini V., Babu S., Mahendiran M. and Goldin Quadros (2014) Diversity of birds from the urban wetlands of Coimbatore, Tamil Nadu, India. Proceedings of the National Conference on Modern Trends in Zoological Research. Department of Zoology, St. Aloysius College, Elthuruth, Thrissur, Kerala, India. ISBN No. 978-81-909551-8-8, pp. 186–189

Book Chapters

Total Citations: **1**; H-index: **1**

1. **Hemambika B.** and Rajesh Kannan V. (2015) Eco-friendly Technologies for Heavy Metal Remediation: A Pragmatic Approaches. In *Environmental Sustainability - Role of Green Technologies*. Edited by: P. Thangavel and Sridevi. Springer India 205–215 (Cited by 1)

Books Published

1. Goldin Quadros, **Hemambika B.**, Julffia Begam A., Mohamed Ibrahim, N. and Sankar, K. (2017) A Bibliography of Tamil Nadu Wetlands. ENVIS Publication, Sálím Ali Centre for Ornithology and Natural History. pp. 505
2. Goldin Quadros, **Hemambika B.**, Julffia Begam A., Srinivasan A. and Azeez P.A. (2015) Glimpses to the Biodiversity of Ramsar Sites in India, ENVIS Publication, Sálím Ali Centre for Ornithology and Natural History. pp. 90 E-ISBN: 978-93-5254-303-8; PB ISBN: 978-93-5254-302-1
3. Goldin Quadros, **Hemambika B.**, Julffia Begam A. and Azeez P.A. (2014) Lakes of Coimbatore City, ENVIS Publication, Sálím Ali Centre for Ornithology and Natural History. pp. 43 ISBN: 978-93-5174-749-9

NCBI Submission

S. No.	GeneBank Accession Number	Name of the gene	Title	Source
1	JQ838220	16S rRNA	<i>Pseudomonas</i> sp. H1VRK3 650 bp 16S ribosomal RNA gene, partial sequence	Chromium-contaminated soil
2	JQ838221	16S rRNA	<i>Bacillus</i> sp. I6VRK2 580 bp 16S ribosomal RNA gene, partial sequence	Chromium-contaminated soil
3	JX914488	16S rRNA	<i>Pseudomonas</i> sp. VRK1A1 1317 bp 16S ribosomal RNA gene, partial sequence	Chromium-contaminated soil

Abstract Publications in Conferences / Symposium / Workshops

1. **Hemambika B.**, Julffia Begam A., Kirubhanandhini V., Babu S., Mahendiran M. and Goldin Quadros V. (March 25–26, 2014) Diversity of birds from the urban wetlands of Coimbatore, Tamil Nadu, India. *National Conference on “Recent Trends in Zoological Research”* organized by the P.G. Department of Zoology, St. Aloysius College, Elthuruth, Thrissur, Kerala, India.
2. **Hemambika B.** and Rajesh Kannan V. (February 27–28, 2012) Phytoremediation: uses of plant growth promoting bacteria to clean up metal-contaminated soils – A review. *National Conference on “Microbiological Research in 21st Century”* organized by the School of Environmental Sciences, Department of Microbiology, Bharathidasan University, Tiruchirappalli, India.
3. **Hemambika B.** and Rajesh Kannan V. (November 21–24, 2011) Intrinsic Characteristics of Cr⁶⁺-Resistant Bacteria Isolated from an Electroplating Industry Polluted Soils for Plant Growth-Promoting Activities. *International Conference on “New Horizons in Biotechnology”* organized by The Biotech Research Society, India (BRSI) and National Institute for Interdisciplinary Science and Technology, CSIR, Trivandrum, India.

4. **Hemambika B.** and Rajesh Kannan V. (October 17–19, 2011) Laudable lineaments of Cr⁶⁺ resistant bacteria isolated from an electroplating industry polluted soil for plant growth promoting activities. *International Symposium on “Environmental Risk Assessment”* organized by Unit of Toxicology, Department of Zoology, Bharathiar University, Coimbatore, India.
5. **Hemambika B.**, Balasubramanian V., Rajesh Kannan V. and Arthur James R. (March 14–17, 2011) Screening of Chromium Resistant-Bacteria for Plant Growth Promoting Activities. *21st Annual International Conference on “Soil, Water and Air”* organized by The Association for Environmental Health and Sciences (AEHS) Foundation, San Diego, California, USA.
6. **Hemambika B.** and Rajesh Kannan V. (December 22–24, 2010) Potential of Chromium Resistant Plant Growth-Promoting Bacteria Isolated from An Electroplating Industry Polluted Soils for the Production of Indole Acetic Acid in the Presence of Tryptophan. *International Symposium on “LAKE 2010: Wetlands, Biodiversity and Climate Change”* organized by Center for Ecological Sciences, Indian Institute of Science, Bangalore, India.
7. **Hemambika B.** and Rajesh Kannan V. (November 29, 30 and December 1, 2010) Critical Appraisal of Chromium Resistant Plant Growth Promoting Bacteria Isolated from an Electroplating Waste Exposed Soils on Solubilisation of Insoluble Phosphates. *Indo-Italian Workshop on “Bacteria & Fungi for Environmental Sustainability”* organized by Amity Institute of Microbial Technology, Amity University together with Embassy of Italy, New Delhi, India.
8. **Hemambika B.** and Rajesh Kannan V. (July 29–31, 2010) Isolation of chromium resistant plant growth-promoting bacteria from an electroplating industry polluted soils and their potential abilities on solubilising insoluble phosphates. *International conference on “Environmental Pollution, Water Conservation and Health”* organized by Department of Zoology, Bangalore University, Bangalore, India.
9. **Hemambika B.** and Rajesh Kannan V. (February 9–12, 2010) Removal of volatile organic compounds – Phytoremediational Approach. *International conference on “Climate Change and Bioresource”* organized by Department of Biotechnology, Bharathidasan University, Tiruchirappalli, India.
10. Johny Rani M., **Hemambika B.**, Hemapriya J. and Rajesh Kannan V. (January 23, 2010) Biosorption of cadmium from wastewater using *Pseudomonas* sp. *International Symposium on “Trace Organic Pollutants in the Environment”* organized by Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli, India.
11. **Hemambika B.**, Muthu Kumar M. and Rajesh Kannan V. (January 03–05, 2008) Comparative study of electrocoagulation and chemical coagulation in the Treatment of effluents from textile industry. *National Symposium on “Current Scenario in Microbial Technology”* organized by Department of Microbiology, Bharathidasan University, Tiruchirappalli, India.
12. Saritha P., **Hemambika B.**, Kanagavel Rajan M. and Muthu Kumar M. (March 8–9, 2007) Comparative study of electrocoagulation and chemical coagulation in the Treatment of effluents from Electroplating industry. *National Conference “Environmental Challenges and Management”* organized by Department of Environmental Sciences, Bharathiar University, Coimbatore, India.

Conferences / Seminars / Workshops Participated

1. One day National workshop on “Recent Advances in Aquatic Research” jointly organized by Dr. M. Aruchami Research Foundation and PG & Research Department of Zoology, Kongunadu Arts and Science College, Coimbatore, India on December 12, 2013
2. International Conference on “Indian Ornithology” (ICIO-2013) organized by Sálím Ali Centre for Ornithology and Natural History (SACON), Anaikatty, Coimbatore, Tamil Nadu, India on November 19–23, 2013
3. Science Academics Lecture Workshop on “Challenges in Environmental Restoration” organized by Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli, India on March 5–6, 2012
4. One day Regional Workshop on “Recent Trends in University – Industry Relations” organized by School of Environmental Sciences, Department of Environmental Management, Bharathidasan University, Tiruchirappalli, India on February 16, 2012
5. National Training cum Workshop on “Analytical and Technical Advancement in AAS and GC (WATA-AG)” organized by Department of Marine Science, Bharathidasan University, Tiruchirappalli, India on January 24–25, 2012
6. National Seminar “Environmental Bioremediation Technologies” organized by Department of Environmental Management, Bharathidasan University, Tiruchirappalli, India on November 5–6, 2009
7. National Workshop on “Scholarly Information Access” organized by Bharathidasan University, Tiruchirappalli, India on October 23–24, 2009
8. Workshop on “Explore Statistical Analysis for Research Reporting” organized by Department of Geography, Bharathidasan University, Tiruchirappalli, India on January 2–5, 2009
9. National Symposium on “Herbal Drug Research” organized by Department of Botany, Bharathiar University, Coimbatore, India on September 25–26, 2008
10. Lecture Workshop on “Current Trends in Biology and Biotechnology” organized by Department of Biochemistry, Bharathidasan University, Tiruchirappalli, India on September 19–20, 2008
11. Practical summer training on “Chromatography and Molecular Biology Techniques” (PCMB’08) organized by School of Biotechnology, Chemical and Biomedical Engineering, Vellore Institute of Technology, Vellore, India on May 14–23, 2008
12. Workshop on “Career in Statistics: Training in Statistical Software” organized by Department of Statistics, Bharathiar University, Coimbatore, India on February 23–24, 2008
13. Seminar on “Total Pure Water Solutions” organized by Bharathiar University, Coimbatore and Millipore India Pvt. Ltd. Coimbatore, India on September 26, 2007
14. National Seminar “Domestic Water Treatment: Issues and Challenges” organized by Department of Economics, Bharathiar University, Coimbatore Bharathiar University, Coimbatore on February 28, 2007
15. National Conference “Applications of Remote Sensing (RS) and Geographical Information System (GIS) In Environmental Management” organized by Department of Environmental Sciences, PSG College of Arts and Science, Coimbatore, India on March 10–11, 2006
16. National Conference “Frontiers in Environmental Sciences and Engineering in India” organized by Department of Environmental Sciences, Bharathiar University, Coimbatore, India on September 15–17, 2005