




# Bharathiar University

State University | "A++" Grade by NAAC | 46<sup>th</sup> Rank in MoE-NIRF  
Maruthamalai Road, Coimbatore, Tamil Nadu - 641 046.

<b>Dr M RAJKUMAR</b> Professor and Head Department of Environmental Sciences Bharathiar University Coimbatore, 641041 Tamil Nadu <b>E-mail:</b> mraaj13@buc.edu.in <b>Phone:</b> 8939189830 <b>Office Number:</b> 0422-2428395	
<b>Research Area</b> <ul style="list-style-type: none"><li>• Bioremediation - Phytoremediation</li><li>• Plant-metal-microbe interaction</li><li>• Climate change biology</li><li>• Environmental Microbiology</li><li>• Plant Stress Physiology</li></ul>	<b>Courses Teaching</b> <ul style="list-style-type: none"><li>• Environmental Pollution</li><li>• Environmental Microbiology and Biotechnology</li><li>• Waste Management and Bioremediation</li></ul>
<b>Research Experience:</b> 25	<b>Teaching Experience:</b> 15
<b>Research Credentials</b> (as on October 2024 – Source: Google scholar) H-index: 42                      Citations: 11531                      i10-index: 58	
<b>Publications</b> International Journals: 64                      National Journals: 2                      Books/Chapters: 8 Conferences: 62                      Publication Database: 53	
<b>Career</b> <b>Other Institutes</b> <ol style="list-style-type: none"><li><b>1. Designation : Post Doctoral Fellow</b> Institution Name : JSPS Fellow, Graduate School of Agricultural Science, Kobe University, Japan Period : September 2008 - September 2010</li><li><b>2. Designation : Faculty Fellow</b> Institution Name : Scientist D - DBT Ramalingasamy Fellow, NEERI - CSIR. Taramani, Chennai Period : March 2011 - August 2013</li><li><b>3. Designation : Post Doctoral Fellow</b> Institution Name : College of Agriculture, Chonbuk National University, South Korea Period : June 2003 - January 2006</li><li><b>4. Designation : Faculty Fellow</b> Institution Name : Scientist D - DBT Ramalingasamy Fellow, Central University of Tamil Nadu, Period : August 2013 - November 2016</li><li><b>5. Designation : Post Doctoral Fellow</b> Institution Name : FCT Research and Teaching Fellow, University of Coimbra, Portugal Period : April 2006 - August 2008</li><li><b>6. Designation : Lecturer</b> Institution Name : Department of Biotechnology, KSR Collage of Technology Period : April 2002 - April 2003</li></ol> <b>At Bharathiar University</b> <ol style="list-style-type: none"><li><b>1. Designation : Professor</b> Period : November 2016 - November 2024</li></ol>	
<b>Education</b>	



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**Dr M RAJKUMAR , Professor and Head , Department of Environmental Sciences**

## Ph. D.

Subject : Environmental Science

Institution : Centre for Environmental Studies (Supervisor: Dr. R. Nagendran, Former Expert Member, NGT)

Affiliated University : Anna University, Chennai

Year of Award : September 2002

## M. Sc.

Subject : Botany

Institution : ANJAC, Sivakasi

Affiliated University : MK University, Madurai

Year of Award : May 1996

## B. Sc.

Subject : Botany

Institution : ANJAC, Sivakasi

Affiliated University : MK University, Madurai

Year of Award : May 1994

## Projects

## Research Guidance Completed

Ph.D. - 3 Post-Doc - 2M.Phil. - 1

## Visits

1. SOUTH KOREA -Post Doc Work ( 2006-01-20 - 2003-06-01 )
2. PORTUGAL - Post Doc Work ( 2006-04-04 - 2008-08-31 )
3. JAPAN - Post Doc Work ( 2008-09-08 - 2010-09-08 )
4. SPAIN - Paper Presentation ( 2006-09-10 - 2006-09-13 )
5. PORTUGAL - Paper Presentation ( 2009-12-02 - 2009-12-08 )

## Selected Publications

### 1. Synergistic effect of biochar and plant growth promoting bacteria improve the growth and phytostabilization potential of Sorghum bicolor in Cd and Zn contaminated soils

Rhizosphere 29 100844 (July 2024)

Vadivel Anbuganesan, Ramasamy Vishnupradeep, Ninu Mehnaz, Adarsh Kumar, Helena Freitas, Mani Rajkumar

### 2. Combined Application of Biochar and Plant Growth-Promoting Rhizobacteria Improves Heavy Metal and Drought Stress Tolerance in Zea mays

Plants 13 1143 (January 2024)

Vadivel Anbuganesan, Ramasamy Vishnupradeep, L Benedict Bruno, Krishnan Sharmila, Helena Freitas, Mani Rajkumar

### 3. Amaranthus Biochar-Based Microbial Cell Composites for Alleviation of Drought and Cadmium Stress: A Novel Bioremediation Approach

Plants 12 1973 (September 2023)

Tripti, Kumar, A., Maleva, M., Borisova, G., Rajkumar, M.



**4. Plant growth promoting bacteria improve growth and phytostabilization potential of Zea mays under chromium and drought stress by altering photosynthetic and antioxidant responses**

Environmental Technology & Innovation 102154 (November 2022)

R Vishnupradeep, L Benedict Bruno, Zarin Taj, Chinnannan Karthik, Dinakar Challabathula, Adarsh Kumar, Helena Freitas, Mani Rajkumar

**5. Effect of Plant Growth-Promoting Rhizobacteria and Biochar on Ricinus communis Growth, Physiology, Nutrient Uptake and Soil Enzyme Activities,**

Applied Ecology and Environmental Sciences 10 640 (September 2022)

V. Anbuganesan, R. Vishnupradeep, V.S. Varshini, A.S. Archana, S. Soundarya, L. Benedict Bruno, M. Rajkumar.

**6. Synergism of Industrial and Agricultural Waste as a Suitable Carrier Material for Developing Potential Biofertilizer for Sustainable Agricultural Production of Eggplant**

Horticulturae 8 444 (July 2022)

Tripti; Kumar, A.; Kumar, V.; Anshumali; Bruno, L.B.; Rajkumar

**7. Enhanced phytoextraction of multi-metal contaminated soils under increased atmospheric temperature by bioaugmentation with plant growth promoting Bacillus cereus**

Journal of Environmental Management 289, 112553 (October 2021)

L. B. Bruno, V. Anbuganesan, C. Karthik, Tripti, A. Kumar, J. R. Banu, H. Freitas, M. Rajkumar

**8. Valorization of agricultural residues: different biorefinery routes,**

Journal of Environmental Chemical Engineering 9 (4) 105435 (August 2021)

G. Ginni, S, Kavitha, R.Y. Kannah, S. K. Bhatia, S. A. Kumar, M. Rajkumar, K. Gopalakrishnan, A. Pugazhendhi, N. T. L. Chi, J. R. Banu,

**9. Synergistic effect of ACC deaminase producing Pseudomonas sp. TR15a and siderophore producing Bacillus aerophilus TR15c for enhanced growth and copper accumulation in Helianthus annuus L**

Chemosphere 130038 (August 2021)

Adarsh Kumar, Tripti, Maria Maleva, Benedict Bruno, Mani Rajkumar

**10. Cellulosimicrobium funkei strain AR6 alleviate Cr(VI) toxicity in Lycopersicon esculentum by regulating the expression of growth responsible, stress tolerant and metal transporter genes**

Rhizosphere 18 100351 (June 2021)

C.Karthik, K.Kadirvelu, B.Bruno, K.Maharajan, M.Rajkumar, S.R.Manoj, P.I.Arulselvi,