



Balasubramanian Paramasivan


Assistant Professor (Grade – I)

Department of Biotechnology & Medical Engineering,

National Institute of Technology Rourkela, INDIA – 769 008

(<https://website.nitrkl.ac.in/FProfile.aspx?e=balap>)



 (+91) 661 246 2297

 (+91) 82802 82807

 biobala@nitrkl.ac.in

 8th May 1984

EDUCATION

2007 – 2012	Ph.D.	<i>Environmental Engineering</i>	Indian Institute of Technology Madras (India)
2005 – 2007	M.E.	<i>Environmental Management</i>	Anna University Chennai (India)
2001 – 2005	B.Tech.	<i>Biotechnology</i>	Anna University of Technology Trichy (India)

EXPERIENCE

- ✓ **Assistant Professor** (Apr' 2014 – Present), National Institute of Technology Rourkela, India
- ✓ **Adhoc Faculty** (Dec' 2013 – Apr' 2014), National Institute of Technology Calicut, India
- ✓ **Adhoc Faculty** (Aug' 2012 – May' 2013), National Institute of Technology Tiruchirappalli, India

PROFESSIONAL RECOGNITION/ AWARD

Award

- **Green Technologists of the year – 2020** award from National Environmental Science Academy (NESA), New Delhi, India.
- **Young Scientist of the year – 2019** award from Venus International Research Awards (VIRA), Chennai, India.
- **Early Career Research Award – 2018** from Science & Engineering Research Board (SERB) of Department of Science & Technology, Govt. of India.
- **Young Faculty of the year – 2017** award from Arunai International Research Foundation (AIRF), Chennai, India.
- **Young Scientists of the year – 2016** award from National Environmental Science Academy (NESA), New Delhi, India.
- **Hiyoshi Young Leaf Award – 2015**, a joint collaborative award from Hiyoshi Ecological Services Pvt. Ltd., India and Hiyoshi Corporation, Japan.

Fellowships

- **Fellowship** for participation in 2nd BRICS Young Scientist Forum under the theme “Building Young Scientists’ Leadership in Science, Technology and Innovation” on 11-15th Jul, 2017 at Zhejiang University, Hangzhou (China)
- **Ph.D. fellowship** from Ministry of Human Resources Development, Government of India from Jan' 10 – Aug' 12 for the project “Treatment of volatile organic compound emissions from pharmaceutical industries” (India)
- **International travel grant** from IIT Madras to participate in International conference on Environmental Engineering and Technology on 13-15th Jul' 2011 at Amsterdam (The Netherlands)
- **Fellowship** for Invitation Program for Science and Technological Human Resources under Japan-East Asia Network of Exchange for Students and Youth (JENESYS) Programme 2011 (2nd Batch) on 24th Oct' to 4th Nov' 2011 organised by Japan International Cooperation Center (Japan)
- **Senior Research Fellowship** from Ministry of Water Resources, Government of India from Jul' 07 – Dec' 09 for the project “Development of mathematical model for cleanup of Chromium contaminated aquifers” (India)

SPONSORED PROJECTS

- Nano zerovalent Iron-Graphene oxide composite for enhanced biodegradation wastewater: A novel strategy for boosting biogas production (Sponsor: DST-WTI for Dec' 2020 – Dec' 2023 with 22.68 Lakhs; Status - Ongoing; Role: **Co-PI**)
- Development of a low-cost and effective seeding material for struvite precipitation by thermochemical conversion of microalgal biomass (Sponsor: OVDF of DST-SERB for Feb' 2022 – Feb' 2023 with INR. 22.50 Lakhs; Status - Ongoing; Role: **Mentor**)
- Design, development and demonstration of struvite recovery by electrocoagulation from urinal systems for biofertilizer applications (Sponsor: DST-TDP for Oct' 2021 – Oct'2023 with 42.19 Lakhs; Status - Ongoing; Role: **PI**)
- Integrated struvite crystallization and microalgal growth for biofertilizer production using source-separated urine (Sponsor: AISDF of DST-SERB, Govt. of India for Oct' 2019 – Oct' 2021 with INR. 38.81 Lakhs; Status - Completed; Role: **PI**)
- Drop-in Compostable Kitchen Trash Bags from Waste Tea Fungus Cellulose (Sponsor: DBT-BIG BIRAC Grant for Mar' 2019 – Mar' 2021 with 49.19 Lakhs; Status – Completed; Role: **PI**)
- Design, development and demonstration on biochar production strategies for sustainable agricultural livelihoods (Sponsor: ECR of DST-SERB for Aug' 2018 – Aug' 2021 with INR. 30.09 Lakhs; Status – Completed; Role: **PI**)
- Design and development of porous silicon based biosensor for chromium detection in and around of Sukinda mines valley of Odisha, India (Sponsor: DST-WTI for Mar' 2016 – Mar' 2019 with INR. 29.09 Lakhs; Status – Completed; Role: **Co-PI**)
- Investigation over the biosorption characteristics of toxic dye and metal removal from aqueous solutions by novel biomass (Sponsor: DST-SERB for Aug' 2016 – Aug' 2018 with INR. 19.20 Lakhs; Status – Completed; Role: **Mentor**)

JOURNAL PUBLICATIONS (Since 1st Jan 2022)

[Google Scholar Id: LsrWnfsAAAAJ&hl Citations - 2102; h-index - 25; i10-index - 58]

1. Pathy, A., Nageshwari, K., Ramaraj, R., Maniam, G. P., Govindan, N., & **Balasubramanian, P.** (2022). Biohydrogen production using algae: Potentiality, Economics and Challenges. *Bioresource Technology*, 127514.
2. Behera, B., Selvam, S. M., & **Balasubramanian, P.** (2022). Hydrothermal Processing of Microalgal Biomass: Circular Bio-economy Perspectives for Addressing Food-Water-Energy Nexus. *Bioresource Technology*, 127443.
3. Priyadharshini, T., Nageshwari, K., Vimaladhasan, S., Prakash, S. P., & **Balasubramanian, P.** (2022). Machine learning prediction of SCOBY cellulose yield from Kombucha tea fermentation. *Bioresource Technology Reports*, 18, 101027.
4. Pathy, A., Krishnamoorthy, N., Chang, S. X., & **Paramasivan, B.** (2022). Malachite green removal using algal biochar and its composites with kombucha SCOBY: An integrated biosorption and phycoremediation approach. *Surfaces and Interfaces*, 30, 101880.
5. Janakiraman, T., Pathy, A., Poosari Kumaravel, S., & **Paramasivan, B.** (2022). Effect of coconut shell in gasification kinetics of palm kernel shells at various blending ratios. *Environment, Development and Sustainability*, 24(6), 8333-8350.
6. Das, B., Lou-Franco, J., Gilbride, B., Ellis, M. G., Stewart, L. D., Grant, I. R., ... & Cao, C. (2022). Peroxidase-Mimicking Activity of Biogenic Gold Nanoparticles Produced from *Prunus nepalensis* Fruit Extract: Characterizations and Application for the Detection of *Mycobacterium bovis*. *ACS Applied Bio Materials*.
7. Behera, B., & **Paramasivan, B.** (2022). Research trends and market opportunities of microalgal biorefinery technologies from circular bioeconomy perspectives. *Bioresource Technology*, 127038.