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EDUCATION

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

EXPERIENCE

- ✓ **Associate Professor** (Jul' 2024 – Present), National Institute of Technology Rourkela, India
- ✓ **Assistant Professor** (Apr' 2014 – Jun' 2024), 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

- Development of Cost-Effective Nanofiber-Based Stickers with Hexanal and Silver Nanoparticles to Extend Shelf Life and Enhance Microbial Safety of Fresh Fruits (Sponsor: DBT-BIG BIRAC Grant for Jul' 2024 – Dec' 2025 with 49.50 Lakhs; status: Ongoing; Role – **Co-PI**)
- Nano zerovalent Iron-Graphene oxide composite for enhanced biodegradation wastewater: A novel strategy for boosting biogas production (Sponsor: DST-WTI for Dec' 2020 – Jun' 2024 with 22.68 Lakhs; Status - Completed; 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 – Aug' 2023 with INR. 32.50 Lakhs; Status - Completed; 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 - Completed; 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 2024) (https://orcid.org/0000-0002-3821-5029)

[Google Scholar Id: LsrWnfsAAAAJ&hl Citations - 4222; h-index - 35; i10-index - 88]

1. **Balasubramanian, P.,** Prabhakar, M. R., Liu, C., Li, F., Nguyen, X. C., Nageshwari, K., ... & Zhang, P. (2024). Predictive Capability of Phosphate Recovery from Wastewater Using a Rough Set Machine Learning Model. ACS ES&T Engineering.
2. Dey, B., Prabhakar, M. R., Jayaraman, S., Gujjala, L. K. S., Venugopal, A. P., & **Balasubramanian, P.** (2024). Biopolymer-based solutions for enhanced safety and quality assurance: A review. Food Research International, 114723.
3. Chandrasekaran, S., Zaffar, A., & **Balasubramanian, P.** (2024). Struvite in circular economy: Production techniques, emerging applications and market opportunities. Wiley Interdisciplinary Reviews: Energy and Environment, 13(4), e529.
4. **Balasubramanian, P.,** Prabhakar, M. R., Liu, C., Zhang, P., & Li, F. (2024). Predictive capability of rough set machine learning in tetracycline adsorption using biochar. Carbon Research, 3(1), 48.
5. Liu, C., Bolan, N., Rajapaksha, A. U., Wang, H., **Balasubramanian, P.,** Zhang, P., ... & Li, F. (2024). Critical review of biochar for the removal of emerging inorganic pollutants from wastewater. Chinese Chemical Letters, 109960.
6. Dey, B., Jayaraman, S., & **Balasubramanian, P.** (2024). Investigating the effects of drying on the physical properties of Kombucha Bacterial Cellulose: Kinetic study and modeling approach. Journal of Cleaner Production, 452, 142204.