Dr. GINI RANI

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P.O Nagnagar, P.S Barwadda, Dhanbad, 826004, Jharkhand.

Academic Qualification

Exam/Degree	University/Board	Year	Marks (%)
Ph.D	Central University of Punjab	2023	72%
M.Phil	Central University of Punjab	2015	61%
M.Sc	Central University of Rajasthan	2013	67.7%
B.Sc	Magadh University	2010	68.12%
12^{th}	Gujarat Secondary and Higher Secondary Education board	2007	54.8%
10^{th}	Gujarat Secondary and Higher Secondary Education board	2005	63.8%

Awards and Achievements

- UGC NET qualified on 21^{st} October 2013
- UGC RGNF received in April 2014

Administrative Responsibilities

- Team Manager: Youth Utsav (Unifest 2025), held at Sister Nivedita University, Kolkata Date. 8^{th} – 12^{th} January 2025.

Research Interest

Wastewater Treatment, Energy recovery & Energy Generation, Hydrogen Production, Waste Management, Nano Technology, Bioelectrochemical systems, Environmental Biotechnology

Published Peer Reviewed Research Articles

1. Rani, G., Nabi, Z., Banu, J. R., & Yogalakshmi, K. N. (2020). Batch fed single chambered microbial electrolysis cell for the treatment of landfill leachate. *Renewable energy*, *153*, 168-174. **(IF 8.63)**
2. Rani, G., Banu, J. R., Kumar, G., & Yogalakshmi, K. N. (2022). Statistical optimization of operating parameters of microbial electrolysis cell treating dairy industry wastewater using quadratic model to enhance energy generation. *International Journal of Hydrogen Energy*. **(IF 7.139)**
3. Rani, G., Krishna, K., & Yogalakshmi, K. N. (2021). Enhancing the electrochemical performance of Fe3O4 nanoparticles layered carbon electrodes in Microbial Electrolysis Cell. *Journal of Environmental Chemical Engineering*, *9*(6), 106326. **(IF 7.96)**

Published Book Chapters

1. Rani, G., Jaswal, V., & Yogalakshmi, K. N. (2023). Anode modification: An approach to improve power generation in microbial fuel cells (MFCs). In *Development in Wastewater Treatment Research and Processes* (pp. 133-152). Elsevier
2. Rani, G., Banu, J. R., & Yogalakshmi, K. N. (2022). Electrode modification and its application in microbial electrolysis cell. In *Scaling Up of Microbial Electrochemical Systems* (pp. 339-357). Elsevier. (ISBN No. 978-0-323-90765-1)
3. Rani, G., Jaswal, V., Banu, R., & Yogalakshmi, K. N. (2020). An Insight into Biological Photovoltaic Cell Based Electrochemical System. In *Bioelectrochemical Systems* (pp. 53-70). Springer, Singapore. (ISBN No. 978-981-15-6872-5)
4. Rani, G., Kaur, J., Kumar, A., & Yogalakshmi, K. N. (2020). Ecosystem health and dynamics: An indicator of global climate change. In *Contemporary environmental issues and challenges in era of climate change* (pp. 1-32). Springer, Singapore. (ISBN No. 978-981-32-9595-7)
5. Jaswal, V., Rani, G., & Yogalakshmi, K. N. (2020). Photosynthetic Microbial Fuel Cells: From Fundamental to Potential Applications. In *Bioelectrochemical Systems* (pp. 1-19). Springer, Singapore. (ISBN No. 978-981-15-6868-8)

6. Kaur, J., Rani, G., & Yogalakshmi, K. N. (2020). Problems and issues of food waste-based biorefineries. In *Food Waste to Valuable Resources* (pp. 343-357). Academic Press. (ISBN No. 978-0-12-818353-3)
7. Yogalakshmi, K. N., Das, A., Rani, G., Jaswal, V., & Randhawa, J. S. (2020). Nano-bioremediation: a new age technology for the treatment of dyes in textile effluents. In *Bioremediation of Industrial Waste for Environmental Safety* (pp. 313-347). Springer, Singapore. (ISBN No. 978-981-13-1891-7)
8. Rani, G. and Yogalakshmi, K. N. (2018). Sustainable Urban Development: An Environmental Perspective. (In) Advances in Urban Studies in India. ISBN: 978-93-82847-92-2. Pp 221 – 236

Citations

Google Scholar: **205**

Scopus: **51**

Web of Science: **51**

Conferences

- Presented poster titled, 'Start up and operation of single chambered microbial electrolysis cell to treat dairy industry wastewater' at an International Conference on 'Recent Advances in Bioenergy Research' held at Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala from March 14-17, 2015.
- Presented Paper titled 'Improved current generation in Microbial Electrolysis Cell using iron oxide nanoparticles deposited carbon cloth and graphite sheet electrodes' at the National Conference on Nanomaterials and Nanobiotechnology 2017 held at Chennai, 7^{th} – 8^{th} February, 2017.

Workshops and training programmes

- Completed Off- campus outreach certificate program on, 'Basics of remote sensing & GNSS' conducted by Indian Institute of Remote Sensing, Department of Space, Govt. of India, from 4^{th} August to 14^{th} November 2014.
- Attended one day Acquaintance program of IUAC, New Delhi, at Central University of Punjab on April 4, 2015.

- Attended one week Training Program, “Hands on Analytical and Molecular Techniques:” from 14th March to 18th March 2016, conducted by Sardar Swaran Singh National Institute of Bio-Energy, Kapurthala, Punjab.
- Participated in DST and CII Sponsored One- Day Workshop on “Prime Minister’s Fellowship Scheme for Doctoral Research”, organized by Central university of Punjab Mansa Road, Bathinda. (03/05/2017)
- Participated in the Training Programme “STTP Advances in in Membrane Development & Hands on Experience” held at SVNIT Surat, Gujarat, from 17th to 21st October, 2016.
- Participated in one day workshop on “Water Quality and Filtration Practices in Laboratory”, organized by Central university of Punjab in collaboration with Klorofil Scientific at City Campus, Mansa Road, Bathinda. (26/09/2019).