

Dr. M. Rajeswari, Assistant Professor

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Educational Qualification	M.Tech, Ph.D		
Experience	Teaching: 21	Research: 07 Years	
Area of Interest	Kinetics, Unit Operations, Membrane Separations, Process dynamics and Control, Water purification.		
Date of joining RVCE	08-12-2005		
Email ID	rajeshwarim@rvce.edu.in		

Project Guided:

Number of UG Projects Guided: 10

Number of PG Projects Guided: 02

Publications:

National Journal: 01

National Conference : 06

International Journal: 07

International Conference : 09

National journal:

1. Rajeswari, M., Agrawal, P. Rapid Water Disinfection Using ZnO Nanoparticles Synthesized from Citrus aurantifolia. Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci. (2020). <https://doi.org/10.1007/s40011-020-01164-4>.

National Conference:

1. Paper presented in 14th conference of Society of Cytologists and Geneticists held at Bapuji institute of Engineering and Technology, Davangere during 6th to 8th March 2019.

2. Poster presentation at “**Bengaluru Tech Summit**” on topic “Biosynthesis of multifunctional zinc oxide nanoparticles using Citrus fruit peel extract and its antimicrobial activity” held at Bengalure palace *during 16-18 November , 2017.*
3. Poster presentation at “**Bengaluru Tech Summit**” on topic “Evaluation on the efficiency of untreated coffee husks as a low cost sorbent for removal of Cd (II) from aqueous solutions in batch and column mode “ held at Bengalure palace *during 16-18 November , 2017.*
4. Research paper presented at National Seminar and Workshop on functional nanomaterials for Energy, Environment and Health - FUNEH 2016 Sponsored by DST-PURSE Scheme and presented paper on “Synthesis of ZnO-Chitin nanoparticles and development of ZnO nanoparticals alginate composite material for food packaging application” held at Mangalore University, Mangala gangothrhi, *during 21-22 March, 2016.*
5. Poster presentation at *Bio India 2016* on topic “Optimization of batch condition for the biosorption of Chromium (VI) and Cadmium (II) from aqueous solutions using commercial coffee waste-Equilibrium modeling and kinetic studies” held at Ashoka hotel, Bangalore *during 9-11 February, 2016.*
6. Anila rani.P,Rajeswari.M,vidyashesh,vidya .v.rao,”impact of dissolved oxygen concentration on key parameters and production of recombinant proteins using fermentation process “ national conference on emerging trends in bioprocessing& simulation,ppTP16,2013.

International Journal:

1. Rajeswari, M., Bhoomika, K.N., Ruksar, H. et al. Design and Performance Assessment of Zinc Oxide–Chitosan Nanocomposite Filter for Continuous Removal of Textile Azo Dye. Top Catal (2022). <https://doi.org/10.1007/s11244-022-01683-6>
2. Rajeswari M, Deepak S M, Prashanth S, Uchit B, Domestic Water Filter for Treatment of Arsenic Contaminated Water ECS Transactions, 107 (1) 15831-15842 (2022)
3. Rajeswari. M, Pushpa Agrawal, Nagashree N Rao, Ashwani Sharma, Lingayya Hiremath, Tippareddy K S, Shivandappa, Modelling and efficiency assessment of the up flow fixed bed process packed with Moringa oleifera for continuous Cd(II) removal from drinking water, Journal of Molecular Structure, Volume 1236, 2021, 130328, ISSN 0022-2860, <https://doi.org/10.1016/j.molstruc.2021.130328>.
4. Naveen R, Bhoomika K N, Vidyadhara S R, Hifza Ruksar, Rajeswari M and Nagashree N Rao, Efficiency of recent advances for effective dye removal from the textile effluent – A Review International Advanced Research Journal in Science, Engineering and Technology Vol. 8, Issue 5, May 2021. DOI: 10.17148/IARJSET.2021.85105
5. Rajeswari et.al. (2021). An architectural avenue of electro-optical biosensor activities for the detection of formalin adulteration in preserved foods packaging. Mazedan Chemical Research Journal, 2(1), 14-17.
6. Rajeswari M, Pushpa Agrawal, Roopa G S, Akshay Jain A and Praveen Kumar Gupta “Green Synthesis and Characterization of Multifunctional Zinc Oxide nanomaterials using Extract of Moringa Oleifera seed.” Materials Today Proceedings (5).20996-21002. 2018.
7. Simran A Singh, Praveen Kumar Gupta, Rajeswari M and Tabitha Jaumala “Detection of Stress using Biosensors” Materials Today Proceedings (5).21003- 21010. 2018.
8. Rajeswari M and Pushpa Agrawal “Biosorption study on Moringa Oleifera seeds as natural adsorbent for removal of Chromium (VI) from aqueous solution” Journal of Environmental research and development vol 13 No. 02, October-December 2018.

9. Rajeshwari M, Pushpa Agrawal,” Continuous Biosorption Of Arsenic By Moringa Olefera in A Packed Column”. International Journal of ChemTech Research CODEN (USA): IJCRGG ISSN : 0974-4290 Vol.6, No.7, Sep 2014
10. M.Rajeshwari, Pushpa Agrawal. S. Pavithra, Priya, G.R. Sandhya, and G.M.Pavithra”Continuous Biosorption of cadmium by *Moringa olefera* in a packed column “Biotechnology and Bioprocess Engineering 18:321-325 (Springer 2013).
11. Praveen Kumar gupta, Rajeshwari.M”Isothermal, thermodynamics kinetics study of basic dye using rice husk” International Journal of atoms and molecules, 2012.
12. Anila Rani.P, Dr G.V. Choudari,Rajeshwari .M”Production of penicillin Acylase using mutant Escherichia coli strain “, International Journal of bio engineering ,science and Technology 2012, pg 122-127,2012.

International Conference:

1. Poster presentation at Srishti-2022 – a state level project exhibition and competition held on July 25th, 26th and 27th, 2022 at BMS College of Engineering, Bengaluru, India..
2. Research paper presented at 3rd International Conference on Mathematics Techniques and Applications (e- ICMTA-2022) Organized by Mathematics department in Virtual mode, SRM IST, Chennai during 23-03-2022 to 25-03-2022.
3. Ashwani Sharma, Rajeshwari M, Nagashree N Rao paper presented on topic “ENHANCEMENT OF THE OIL SORPTION CAPACITY OF PLANT BASED BIOFIBERS THROUGH FUNCTIONALIZATION” in the International Conference on Advances and Innovations in Biotechnology and Allied sciences organised by University Institute of Biotechnology, Chandigarh University In association with International Plant Propagators Society (IPPS) of during 24th and 25th March 2022
4. Rajeshwari M, Bhoomika K N, Hifza Ruksar, Naveen R Vidyadhara S R Nagashree N Rao,Ashwani Sharma, (2021). Continuous biosorption of azo dyes from textiles industry effluents using zinc oxide-chitin nanocomposites.: Continuous biosorption of azo dyes . SPAST Abstracts, 1(01). <https://spast.org/techrep/article/view/1032>
5. Ashwani Sharma, Nagashree, Rajeshwari, Ramya, Shiva, DEVELOPMENT OF ECO-FRIENDLY PLANT BASED MOSQUITO REPELLANTS:- MAKE IN INDIA INITIATIVE , SPAST Abstracts: Vol. 1 No. 01 (2021): Smart Green Connected Societies. <https://spast.org/techrep/article/view/1864>
6. Rajeshwari M, Deepak S M, Prashanth S, Uchit B, Domestic water filter for treatment of arsenic contaminated water , SPAST Abstracts: Vol. 1 No. 01 (2021): Smart Green Connected Societies <https://spast.org/techrep/article/view/1036>
7. Research paper presented on topic “Potential application of Moringa oleifera seed as a natural biosorbent for effective removal of Cd (II) in aqueous solution” at Virtual International Conference on Product Design, Development, and Deployment held at Vellore Institute of Technology, VIT Vellore India, during 11 th and 12 th September 2021
8. Research paper presented on topic “STUDIES ON ENZYME BASED BIOSENSOR FOR THE DETECTION OF FORMALIN ADULTERATION IN PRESERVED FOODS” at 1st International Conference on WATER, ENERGY & ENVIRONMENT [WEECON 2021] conducted on 23rd & 24th December 2021, organized by ISET Research India in association with IEI Vietnam.
9. Paper presented in international conference on nanomaterials and their applications held at University of Mysore during March 1-2, 2018 organized by UGC- CPEPA, UPE and DST-Purse Programmes.

10. Oral presentation: Experimental investigation on producer gas composition from rice husk in throat less down gasifier “in 10th international congress of environmental research during December 19-21, 2019.
11. Oral presentation: “Industrial zinc electroplating “in 10 th international congress of environmental research during December 19-21, 2019.
12. Research Paper presented (Oral) on topic ‘Detection of stress using Biosensors sensor” at ICSEM-2016, **smart engineering material**, initiated under TEQUIP-II subcomponent 1.2.1 at R.V.C.E. during 20-22 October 2016.
13. Research Paper presented (Oral) on topic ‘Green synthesis and characterization of multifunctional zinc oxide nanoparticles using *Moringa oleifera* seed extract” at ICSEM-2016, **smart engineering material**, initiated under TEQUIP-II subcomponent 1.2.1 at R.V.C.E. during 20-22 October 2016.
14. Rajeswari.M, Pushpa Agrawal and Anila Rani P” **Use of Moringa oleifera Seed as a Natural Adsorbent for removal of Cd (II) Ions from aqueous solution through Fixed Bed Column**”. International Conference on ENVIRONMENTAL BIOTECHNOLOGY AND BIODIVERSITY (A GATEWAY TO SUSTAINBLE FUTURE), 3rd - 4th March, 2014 Page No.156.
15. Rajeswari M., Pushpa Agrawal, “**Fixed bed column waste study for removal of Cd (II) and Cr (VI) from aqueous solutions using untreated coffee residue as an agricultural biomass**” 7 th International congress of Environmental research 26-28 December 2014.
16. Anila Rani P., Rajeswari.M, Pushpa Agrawal and Gupta Praveen K)“**Re-refining of used engine oil**” 7 th International congress of Environmental research 26-28 December 2014, topic entitled “**Bio-terrorism**”
17. M. Rajeswari, Pushpa Agrawal, Vidya. V Rao and Sushma. S “**Optimization of batch conditions and application to packed bed column for removal of Cr (VI) from aqueous solutions using shelled *Moringa oleifera* Lamarck seed powder**” 7 th International congress of Environmental research 26-28 December 2014, topic entitled “**Bio-terrorism**”.

FDP/Workshops/ Seminars/ Symposium attended:

1. Participated in the 5-day online FDP on the theme “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education(AICTE) from 12 July, 2021 to 16 July, 2021.
2. Participated in the Two days training programme “Intellectual Property Rights and Innovations with Special Focus on Prior Art Search” organized by R V College of Engineering, Bengaluru-59 in collaboration with Karnataka State Science and Technology (KSCST, IISC Campus), on 13-14 th September.
3. Participated in the Six days training programme “Advanced Functional Materials” held during 5-10 th August 2019 organized by the Department of Physics, Chemistry and Centre of Excellence-Microelectronics, R V College of Engineering, Bengaluru-59.
4. Participated in the two days Indo-US Workshop on “Hazardous Materials Management” organized by R V College of Engineering, Bengaluru-59 in association with Academy of Certificate Hazardous Materials Managers (ACHMM) –India Chapter. Held during 23-24 November 2018 at R V College of Engineering, Bengaluru-59.

Books/ Book Chapters Published:

1. S. M. Deepak, M. Rajeswari, Neeta Shivakumar, Low-Cost and Sustainable Treatment Options for Removal of Cd (II) from Drinking Water Using Indigenous Materials for Rural Communities, 2022,

ISBN 978-981-19-6023-9, ISBN 978-981-19-6024-6 (eBook)
<https://doi.org/10.1007/978-981-19-6024-6>

2. M. Rajeswari, Nagashree N. Rao, Tanmay Agarwal, and S. Kavyasree, Green Synthesis of Zinc Oxide Nanoparticles Using Citrus Sinensis (Orange) Peel Extract for Achieving Ultraviolet Blocking Properties, 2022, ISBN 978-981-19-6023-9, ISBN 978-981-19-6024-6 (eBook) <https://doi.org/10.1007/978-981-19-6024-6>
3. Neeta Shivakumar, Sinchana Raj, Shahbaaz Ahmed, and M. Rajeswari, Bio Polymers and Sensors Used in Food Packaging—Present and Future Prospects, 2022, ISBN 978-981-19-6023-9, ISBN 978-981-19-6024-6 (eBook) <https://doi.org/10.1007/978-981-19-6024-6>.
4. Kausthubh Sumanth, Sanjana Subramanya, Sourav Umashankar, Supriya Gummalam, Rajeswari Mallikarjunaiah, Ashwani Sharma and Nagashree Nagaraj Rao, Revisiting Microalgae as an Additive for Nutraceuticals: A Review, 2022. DOI: 10.5772/intechopen.104902
5. Ashwani Sharma, Nagashree, Rajeswari (2021), Eco-Friendly and Biodegradable Green Composites. London, UK: IntechOpen.
6. Rajeswari M, Pushpa Agrawal and Praveen Kumar Gupta on title “Evaluation on the efficiency of untreated coffee husks as a low cost sorbent for removal of Cd (II) and Cr(VI) from aqueous solutions in batch and column mode ” in Advanced Engineering Research and Applications Biotechnology by Research India publications 2018. ISBN 978-93-87374-32-4.

Funded Projects:

1. Fund received by Karnataka Science and Technology Academy (KSTA) for the project entitled “Continuous column biosorption of azo dyes from textiles industry effluents using zinc oxide-chitin” March 2021.
2. The project “Design and fabrication of enzyme-based biosensors kit for the detection of formalin adulteration in preserved foods” -Funded by KSCST was judged the “Best project of the Year” during the seminar and exhibition held at KLE Society’s Dr. M.S. Sheshgiri College of Engineering and Technology, Belagavi on 26 th and 27 th July.
3. Fund received as Seed money under COE (TEQUIP- 1.2.1) for the Project entitled” Design and development of Enzyme based biosensors for the detection of formalin adulteration in preserved food.” (Rs 65,000).2016.
4. Fund received as Seed money under COE (TEQUIP- 1.2.1) for the Project entitled” Synthesis of antimicrobial and hydropobic citin doped zinc oxide Nano particles” (Rs 50,000 June 2014).
5. Funded by: Karnataka State Council for Science and Technology (KSCST) topic entitled “Continuous biosorption of Arsenic and cadmium using *Moringa oleifera* in a packed column” Feb – 2012.