

Dr. Kirthiga M

Assistant Professor

Educational Qualification M. Sc., M.Phil., Ph D

Experience Teaching:5 Years.



Area of Interest Differential Equations, Biochemistry, Mathematical Modelling, Biosensor

Date of Joining RVCE 14-010-2024

Email ID krthigiam@rvce.edu.in

National Conferences: 0

National Journals:1

International Journals: 12

International Conference:

Book Chapters Published: 1

Patent Published: 2

- M Kirthiga, N K Geetha, B Vivekanandam, Effect of Phosphorylation on the Circadian Clock of Drosophila by Analytical and Graph Theory Matrix Approach, Algorithms for Intelligent Systems, International Joint Conference on Advances in Computational Intelligence, Book Chapter, 10, 113-123, 2024.
- Iswarya T, Samynathan R, Kirthiga M, Rajendran L, Marwan Abukhaled, Transport and Reaction Kinetics in Enzymatic Reaction Process in Multiscale Porous Biocatalytic Electrodes, *Chemistry Africa*, Vol. 5, 1027–1035, 2022, (*Springer*)
- M Kirthiga, S Balamurugan, J Visuvasam, L Rajendran, Theoretical analysis of Single-stage and multi-stage monod model of landfill degradation through mathematical modeling. *Current Biochemical Engineering* Vol. 7, No. 1, 2021 (*Bentham Science Publisher*)

- Kirthiga Murali, Marwan Abukhaled, Sonayappan Balamurugan, Lakshmanan Rajendran, Mathematical modeling of continuous ethanol fermentation in a membrane bioreactor by pervaporation compared to conventional system, *Romanian Journal of Biophysics* Vol. 31, No. 2/2021
- Kirthiga Murali, Balamurugan Sonaiyappan, Rajendran Lakshmanan, Modeling of reaction-diffusion process at carbon nanotube – Redox enzyme composite modified electrode biofuel, *Chemical Physics Letters*, 715, 20–28, 2019. (Elsevier)
- P.G. Jansi Rani, M. Kirthiga, A.Molina, E. Laborda, L. Rajendran, Analytical solution of the convection-diffusion equation for uniformly accessible rotating disk electrodes via the homotopy perturbation method, *Journal of Electroanalytical Chemistry*, 799, 175–180, 2017. (Elsevier)
- L. Rajendran, M. Kirthiga, E. Laborda, Mathematical modeling of nonlinear reaction-diffusion processes in enzymatic biofuel cells, *Current opinion in Electrochemistry*, 1(1), 121-132, 2017. (Elsevier)
- M. Kirthiga, L. Rajendran, C. Fernandez, Theoretical treatment of diffusion and kinetics of osmium redox polymer mediated glucose oxidase enzyme electrodes: Analytical expression of current density for varying potential, *Electrochimica Acta*, 230, 89-97, 2017. (Elsevier)
- LinshanWang, YanShang, ChangshengLiu, CarlosFernandez, L. Rajendran, M. Kirthiga, Yuhong Wang, Dun Niu, Dong dong Liu, The analysis and fabrication of a novel tin-nickel mixed salt electrolytic coloring processing and the performance of colored films for Al-12.7Si-0.7Mg alloy in acidic and alkali corrosive environments, *International Journal of Precision Engineering and Manufacturing*, Vol. 18, 93-98, 2017.

National Journal

- M. Kirthiga, S. Balamurugan, L. Rajendran, Analysis of non-linear process of biodegradation and kinetics for the removal of toluene, biomass growth and carbon dioxide production, *Pramana Research Journal*, 9(6), 2019, 793-811.

Book Chapter

- M Kirthiga, N K Geetha, B Vivekanandam, Effect of Phosphorylation on the Circadian Clock of Drosophila by Analytical and Graph Theory Matrix Approach, Algorithms for Intelligent Systems, International Joint Conference on Advances in Computational Intelligence, Book Chapter, 10, 113-123, 2024.

Patent

- 202341080301 A, Published, DAYANANDA SAGAR COLLEGE OF ENGINEERING, Dr. Geetha N K, Dr. B. Vivekanandam, Dr. Radha Gupta, Dr. Kirthiga M, KKT SHEAR DEFORMATION METHOD ON BUCKLING OF POROUS FUNCTIONALLY GRADED BEAM, India, 2024
- 202441097028 A, Published, DAYANANDA SAGAR COLLEGE OF ENGINEERING, Geetha N K, Kirthiga M, Biofilter on Volatile Organic Compounds (VOC) of Halden-Andrew Kinetics Model using ANN Approach, India, 2024

