CURRICULUM VITAE

Name : Dr. S. Vinolyn Sylvia

Designation : Assistant Professor

Email id. : vinolynsylvia@ldc.edu.in

Educational Qualification :

Degree	Subject	Name of the College	Institution/University	Percentage	Year of passing
Ph.D.	Mathematics	AMET Deemed to be University, Chennai	AMET Deemed to be University, Chennai	-	2023
SET	Mathematics	Mother Teresa Women's University, Kodaikanal	Mother Teresa Women's University, Kodaikanal	-	2018
M.Sc.	Mathematics	Lady Doak College, Madurai	Madurai Kamaraj University	88% 1st class with special distinction	2018
B.Sc.	Mathematics	Lady Doak College, Madurai	Madurai Kamaraj University	88% 1st class with special distinction	2016

Teaching Experience :

Designation	Course Taught	Institution	Period : From	Period : To
Assistant Professor	Mathematics	Kamaraj College, Tuticorin	04/07/2018	31/05/2019
Assistant Professor	Mathematics	Vyasa Arts & Science Women's College, Vasudevanallur, Tenkasi.	15/07/2022	30/08/2022
Assistant Professor	Mathematics	Sathayabama Institute of Science and technology, Chennai	1/09/2022	31/07/2023
Assistant Professor	Mathematics	Lady Doak College, Madurai	01/08/2023	Till date

Research profile

Area of Research : Differential Equations

Research Title : THEORETICAL ANALYSIS OF NONLINEAR REACTION-DIFFUSION PROCESSES IN CHEMICAL SCIENCE

Institution : AMET Deemed to be Unversity, Chennai 603112.

Guide : Dr. L. Rajendran, Professor, Department of Mathematics, AMET Deemed to be University, Chennai 603112

CURRICULUM VITAE

Google scholar link : https://scholar.google.com/citations?user=AXNFr2wAAAAJ&hl=en

SCOPUS link : https://www.scopus.com/authid/detail.uri?authorId=57218114736

Papers presented:

S.No.	Title of the paper	Level of the programme	Conducted by	Period
1	Theoretical investigation of reaction diffusion process in symmetrical porous particle following Michaelis-Menten kinetics: Akbari-Ganji Method	International Conference	Department of Mathematics, The Quaide Milleth College for men, Medavakkam, Chennai	03.03.2022 & 04.03.2022
2	Steady-state Amperometric Oxidase Enzyme-membrane Electrode: A Theoretical Study	International Conference	Department of Mathematics, AMET Deemed to be University, Chennai	28.06.2021 to 30.06.2021
3	Steady State Concentrations Of Carbon Dioxide Absorbed Into Phenyl Glycidyl Ether Solution By Taylor Series Method	International Conference	Department of Mathematics, SRMIST, Kattankulathur, India	24.03.2021 to 26.03.2021
4	Mathematical Modeling of Roll Motion of Ships: Akbari – Ganji Method	National Conference	Department of Mathematics, Sethu Institute of Technology	05.02.2021
5	Nonlinear Dynamics on Rolling of Ships using Akbari-Ganji method	International Conference	Mathematics Division, School of Advanced Sciences, Vellore Institute of Technology, Chennai	21.02.2020 & 22.02.2020
6	Analytical Solution of Convection-Diffusion equation at a rotating disk electrode	International Conference	Department of Mathematics, SRM IST, Kattankulathur, India (*DST sponsored*)	30.01.2020 to 01.02.2020

Papers published:

S.No.	Paper title & Year	Journal title	Indexation	Impact factor/ Cite score
1.	Mathematical modelling of enzymatic glucose fuel cell and numerical validation *(2023)*	Journal of Electroanalytical Chemistry	SCOPUS & WoS (SCI)	4.598(IF)/ 6.9(CS)
2.	Transport and kinetic analysis of amperometric response towards PPO-based rotating disk bioelectrodes *(2023)*	Journal of Electroanalytical Chemistry	SCOPUS & WoS (SCI)	4.598(IF)/ 6.9(CS)
3.	Steady-State Concentrations of Carbon Dioxide Absorbed into Phenyl Glycidyl Ether Solution by Taylor Series Method *(2022)*	AIP Conference Proceedings	SCOPUS	-

4.	Cyclic voltammetric response of homogeneous catalysis of electrochemical reactions: Part 2. A theoretical and numerical approach for EC scheme *(2022)*	Journal of Electroanalytical Chemistry	SCOPUS & WoS (SCI)	4.598(IF)/ 6.9(CS)
5.	Amperometric biosensors and coupled enzyme nonlinear reactions processes: A complete theoretical and numerical approach *(2022)*	Electrochimica Acta	SCOPUS & WoS (SCI)	7.336(IF)/ 12.3(CS)
6.	Theoretical and Numerical Analysis of Nonlinear Processes in Amperometric Enzyme Electrodes with Cyclic Substrate Conversion *(2022)*	Electrochem	-	-
7.	Theoretical Analysis of Transient Responses of Amperometric Biosensor Based on the Phenol–Polyphenol Oxidase Model *(2022)*	International Journal of Electrochemical Science	SCOPUS & WoS (SCI)	1.785(IF)
8.	Kinetics of the Catalytic Combustion of Ethanol and Ethyl Acetate with Estimation of Activation Energy and Rate Constants: An Analytical Study *(2021)*	Current Catalysis	UGC	-
9.	Transient current, sensitivity and resistance of biosensors acting in a trigger mode: Theoretical study *(2021)*	Journal of Electroanalytical Chemistry	SCOPUS & WoS (SCI)	4.598(IF)/ 6.9(CS)
10.	Solving nonlinear reaction–diffusion problem in electrostatic interaction with reaction-generated pH change on the kinetics of immobilized enzyme systems using Taylor series method *(2021)*	Journal of Mathematical Chemistry	SCOPUS & WoS (SCI)	2.357(IF)
11.	An Approximate Analytical Solution Of Nonlinear Equations In N-Aminopiperidine Synthesis: New Approach Of Homotopy Perturbation Method *(2021)*	Turkish Journal of Computer and Mathematics Education (TURCOMAT)	-	-
12.	Transient Current of Catalytic Processes at Chemically Modified Electrodes *(2021)*	International Journal of Electrochemical Science	SCOPUS & WoS (SCI)	1.785(IF)
13.	Poisson–Boltzmann Equation and Electrostatic Potential Around Macroions in Colloidal	Solid State Technology	-	-

	Plasmas: Taylor Series Approach *(2020)*			
14.	Mathematical modeling of hydrogen evolution at a rotating disk electrode *(2020)*	AIP Conference Proceedings	SCOPUS	-
15.	Electric potential and surface oxygen ion density for planar, spherical and cylindrical metal oxide grains *(2020)*	Sensors and Actuators B: Chemical	SCOPUS & WoS (SCI)	7.464(IF)/ 14.0(CS)
16.	Nonlinear Roll Motion Of Ships Using Akbari-Ganji Method *(2020)*	International Journal of Advanced Science and Technology	-	-

Book chapters published:

S.No.	Chapter title & Year	Book title	Publisher	ISBN
1	Electron transfer in modified electrodes with mediator/catalyst composites: Taylor series method *(2021)*	Emerging Technologies and Innovative Research In Science, Engineering, and Management - ETIRSEM 2021,	DK International Research Foundation	978-93-90956-62-3

CERTICATE COURSES

Completed ***NPTEL*** (National programme on technology enhanced learning) courses

- Introduction to Probability and Statistics (2023)
- Introduction to Rings and Fields (2022)
- Graph Theory (2017)
- Great experiments in Psychology (2017)

ACEDEMIC AWARDS AND HONOURS

- Sir James Doak Prize for the best candidate in English in B.A./ B.SC./ B.COM. Degree Examination. (Lady Doak College)
- G. Rengasamy Memorial Prize for a helpful, cheerful and responsible II PG student, who also maintains a good academic record. (Lady Doak College)
- Devadoss Astronomy Endowed Prize in recognition of a devoted study of Astronomy. (Lady Doak College)
- Capt. M.S. Selvarajan and I. Paulraj Memorial Prize: for the best I PG candidate in the Christian Education Council Examination. (Lady Doak College)

CURRICULUM VITAE

COMMITTEES SERVED (College Level)

- 2023-2024

  Member, AQAR

- 2024-2025

  Member, AQAR

  Member, Student Christian Movement

  Member, National Service Scheme

ORGANIZER

- Joint-Organizer of the Workshop on “Effective Mathematical Techniques for Qualifying and Excelling in Competitive Examinations” organized by the Department of Mathematics, Lady Doak College, Madurai on 17th October 2024.