

Sri Ramakrishna Institute of Technology

(An Autonomous Institution) (Accredited by NAAC with "A" Grade) Pachapalayam, Perur Chettipalayam, Coimbatore – 641 010 www.srit.org :: Phone – 0422-2605577



Faculty Profile

Full name with Qualification, Designation and Department:

Dr. S. Saravanakumar , M.Sc., M.Phil., Ph.D.

Assistant Professor of Mathematics,

Department of Science and Humanities



Date of birth	:	05.05.1981	Gender	:	Male
Nationality	:	Indian	Marital status	:	Married
Address for correspondence	:	AP 1 , TNAU QUATRAS, Lawly Road , Coimbatore	Permanent address	:	144, Mariyamman Kovil Street, Pudhupalyam, Rajaplayam.
Mobile no	:	6383073974	e-mail (official)	:	saravanakumar.sh@srit.org
Landline	:	0422-2605577	e-mail (personal)	:	saravanatce@gmail.com
Date of joining	:	23.06.2013	Post of joining	:	Assistant Professor
No of promotions since D.O.J	:	Nil	Present post	:	Assistant Professor
Present pay scale	:	37,400-67,000	Gross pay	:	44,369
Employer ID	:	1718	Bank account No. (Salary credited)	:	500101010539290
P.F. No	:	TN/CBE/56764/613	Group Insurance No	:	1701100/48/13/42/00001717
PAN Number	:	DKIPS6276M	Aadhar Number	:	2121 7605 0961
AICTE ID	:	12186793973	AICTE Institution ID	:	1-7841521

Educational Qualification

Decree	Specialization	Year of	Name of the	Name of the	Class	
Degree	Specialization	Passing	College	University	Obtained	
			Alagappa	Madurai		
	Mathomatica	Amril 2001	Govt Arts	Kamaraj	First	
UG (D.Sc.,)	Wathematics	April 2001	College,	University ,	I'IISt	
			Karaikudi.	Madurai	1	
PG (M.Sc.,)	Mathematics	April 2003	Alagappa	Alagappa	First	
1 G (11.50.,)		Mpm 2005	University.	University.		
PG (M.Phil)	Mathematics	June 2004	Alagappa	Alagappa	First	
10(1111111,))		5 dile 2004	University.	University.		
	Applied		PSG College	Anna	Highly	
Ph.D	Mathematics	March 2020	of	University ,	Commented	
			Technology	Chennai		
Others						

Registration for Ph.D. with area of interest:

Year of Ph.D. Registration: 07.01.2012

Year of Ph.D. Completed: 02.03.2020

Thesis Title: A Study on Non Linear fuzzy Differential Equations in Biological Models

Supervisor Recognition Number: Nil

Ph.D. Scholar Details

S.No.	Name of the scholar	Registration details	College	Status
		Nil		

Academic Experience

Name of the College	Designation	Joining	Relieving	Experience		
	0	Date	Date	Years	Months	Days
Sri Ramakrishna Institute of Technology, Coimbatore	Assistant Professor	03.07.2013	Till Date	10	4	22
PPG Institute of Technology, Coimbatore.	Assistant Professor	23.07.2010	20.06.2013	2	10	29
Tamilnadu College of Engineeing, Coimbatore.	Lecturer	30.06.2008	19.07.2010	2	0	20

S.Veerasamy Chettiar College of Engineering and Technology, Puliangudi.	Lecturer	12.06.2006	20.06.2008	2	0	9
Total					4	20

Industrial Experience

Name of the Organisation	Designation	Nature of Work	Joining Date	Relieving Date	Experience			
					Years	Months	Days	
NIL								
				Total				

Courses Handled

Academic Year	Semester	Course Code	Course Name	Type of Course (T	Pass Percentage
				/ L)	
	Ι	PICM002	Applied Mathematics for Electrical Engineers	Theory	100%
	Ι	20MHG01	Calculus and Linear Algebra	Theory	84%
2022-2023	III	20MHG03	Transforms and Partial Differential Equations	Theory	72%
	II	20MHG02	Differential Equations and Complex Variables	Theory	88%
	IV	20MHG04	Discrete Mathematics	Theory	92%
2021-2022	Ι	20MHG01	Calculus and Linear Algebra	Theory	86%
	I	PICM004	Advance Applied Mathematics for Communication Engineers	Theory	100%
	III	20MHG06	Probability and Statistics	Theory	96%
	II	20MHG02	Differential Equations and Complex Variables	Theory	63%
2020-2021	III	UICM003	Transforms and Partial Differential Equations	Theory	100%
	Ι	20MHG01	Calculus and Linear Algebra	Theory	89%

	Ι	PICM002	Applied Mathematics for Electrical Engineers	Theory	100%
	IV	UICM004	Numerical Methods	Theory	100%
	II	20MHG02	Differential Equations and Complex Variables	Theory	100%
2019-2020	III	UICM003	Transforms and Partial Differential Equations	Theory	100%
	III	UICM003	Transforms and Partial Differential Equations	Theory	100%
	Ι	UICM001	Engineering Mathematics - I	Theory	82%
		UICM001	Engineering Mathematics - I	Theory	76.2%
	IV	UICM007	Probability and Statistics	Theory	100%
	II	UICM002	Engineering Mathematics – II	Theory	100%
2018-2019	III	UICM003	Transforms and Partial Differential Equations	Theory	56%
	Ι	PICM004	Advanced Applied Mathematics for Communication Engineers	Theory	100%
	IV	UICM006	Probability and Random Processes	Theory	79%
	IV	UICM005	Probability and Statistics	Theory	97%
2017-2018	III	MA6351	Transforms and Partial Differential Equations	Theory	62%
	Ι	UICM001	Engineering Mathematics -I	Theory	95%
	Ι	UICM001	Engineering Mathematics -I	Theory	95%
	II	UICM002	Engineering Mathematics -II	Theory	98%
	II	UICM002	Engineering Mathematics -II	Theory	86%
2016-2017	V	MA6531	Discrete Mathematics	Theory	83%
	III	MA6351	Transforms and Partial Differential Equations	Theory	58%
	III	MA6351	Transforms and Partial Differential Equations	Theory	73%
	Ι	MA6151	Mathematics -I	Theory	85%
	IV	MA6454	Numerical Methods	Theory	64%
	IV	MA6454	Numerical Methods	Theory	67%

2015-2016	III	MA6351	Transforms and Partial	Theory	79%
			Differential Equations		
	III	MA6351	Transforms and Partial	Theory	86%
			Differential Equations		
	IV	MA6451	Probability and Random	Theory	94%
			Processes		
	IV	MA6432	Statistics and Numerical	Theory	100%
			methods		
2014-2015	III	MA6351	Transforms and Partial	Theory	91%
			Differential Equations		
	IV	MA6454	Numerical Methods	Theory	85%
		2.64.007.4			
	IV	MA3251	Statistics and Numerical	Theory	78%
			methods		
	III	MA6351	Transforms and Partial	Theory	78%
			Differential Equations		
	Ι	MA6151	Mathematics - I	Theory	94%
2013-2014	II	MA6251	Mathematics -II	Theory	89%
2010 2011	137		Duch shilly and Day law	T 1	E00/
	1V	MA6451	Probability and Kandom	Ineory	59%
		2.5.4.5.1.20	Processes		
	IV	MA6452	Probability and Queueing	Theory	56%
			Theory		

Projects Guided

Academic Year	Semester	Project Title	UG / PG
		Nil	

Publications

Publications	SCI / Scopus / Web of Sciences	Others
Journal	Scopus - 7	Others-10
Conferences		5

Journal Publications

Academic Year 2023-2024 Publications

1.S. Saravanakumar, A. Eswari, O.D. Makinde, N. Anbazhagan, Gyanendra Prasad Joshi, Woong Cho, Analysis of temperature-dependent thermal conductivity and fin efficiency: Direct Akbari-Ganji method, Case Studies in Thermal Engineering, Volume 51, 2023, 103627, ISSN 2214-157X, https://doi.org/10.1016/j.csite.2023.103627. (Impact factor 6.8)

Academic Year 2022-2023 Publications

2. S. Saravanakumar, A. Eswari, Hydar Akca ,Analytical and numerical solution of the nonlinear differential equation for self-igniting reaction diffusion systems: Mathematical modelling approach, International Journal of Nonlinear analysis and applications , 14(2023)107-116 ISSN: 2008-6822 (electronic) http://dx.doi.org/10.22075/ijnaa.2022.31572.3499

 A. Eswari, S. Saravanakumar, Studying on Crop Response Model for Grapes under Climate Change Scenario: Statistical Study Approach, International Journal of Environment and Climate Change, Volume 12, Issue 12, Page 883-894, 2022; Article no.IJECC.94914 ISSN: 2581-8627.

Academic Year 2021-2022 Publications

4. S, Padma , N. Mehala1, A. Eswari, M. E.G. Lyons, B. Manimegalai, L. Rajendran, S.Saravanakumar, "Mathematical Analysis for Electron Transfer Mediator/ Heterogeneous Catalyst Composites in Polymer Modified Electrodes" International journal of Electrochemical Science , 17 (ID 170356, doi: 10.20964/2022.06.44) (2022) (Impact factor 1.73)

5. S.Saravanakumar, L. Maragatham, A. Eswari , "Analysis for Malaria transmission dynamic between human and mosquito population. Part II: Effective infection rate using new technique" Matrix Science Pharma, 2021;5:7-13

Academic Year 2020-2021 Publications

6. S.Saravanakumar, A. Eswari, L.Rajendran, Marwan Abukhaled, "A Mathematical Model of Risk Factors in HIV/AIDS Transmission Dynamics: Observational Study of Female Sexual Network in India", **Applied Mathematics and Information Sciences** 14, No. 6, 967-976 (2020).(Impact Factor 1.166)

7. A. Eswari, **S.Saravanakumar**, "New mathematical analysis for nonlinear simultaneous differential equation in micro-disk biosensor using hyperbolic function method", **Journal of Electroanalytical Chemistry**, Available online 7 November 2020, (article in Press) **(Impact factor 4.464)**

Academic Year 2019-2020 Publications

8. A. Eswari, S. Saravanakumar, Mathematical analysis of Dengue fever infection in India, Advances in Mathematics: Scientific Journal 8 (2019) no.3, page. 641-650. (Impact Factor 0.176)

9. A.Eswari, S. Varadha Raj, S. **Saravanakumar**, "Mathematical impact of SIR network model on varying size of the human population", **Asia Mathematika**, Volume: 4 Issue: 1, (2020) pp: 69 -78.

Academic Year 2018-2019 Publications

10. S.Saravanakumar, B.Sridevi, A.Eswari, L.Rajendran, "Computational and Mathematical Analysis of Fuzzy Quota harvesting model in Fuzzy Environment using Homotopy perturbation method", **Applied Mathematics and Information Sciences** 13, No S1,239-245,2019. **(Impact Factor 1.166)**

11. A. Eswari, S. Saravanakumar, S. Varadha Raj, V. Sabari Priya, "Analysis of Mathematical Modelling the Depletion of Forestry Resource: Effects of Population and Industrialization", Matrix Science Mathematic, 3(2) (2019) pp:22-26.

Academic Year 2017-2018 Publications

12. S.Saravanakumar, B.Sridevi, A.Eswari, L.Rajendran, "Analysis of empirical fuzzy rate equations in homogeneous reaction diffusion Thomas model", **Taga Journal of Graphic Sciences** February 2018 Vol.: 1 ISSN : 1748-0345 (online)

13. S.Saravanakumar, B.Sridevi, A.Eswari, L.Rajendran, "Modelling the depletion of atmospheric fuzzy plankton-oxygen dynamics in a lake due to photosynthetic activity of ecosystem under Climate change", **International Journal of Mathematics and Systems** September 2018 ISSN: 2578-1839 (Online)

Academic Year 2016-2017 Publications

14. A. Eswari, **S. Saravanakumar**, N.Nijeethaa, "Analytical Solution Of Induced Resistance To Control Plant Disease Development In Agricultural Systems", **Bulletin Of Mathematics And Statistics Research** (BOMSR): 2016 (April-June) Vol.4.Issue.2. ISSN: 2348-0580 15.M.Vijayakumar, S.Saravanakumar, S.Nagarani, "Dissipative Analysis For Random Time Varying Delay Sampled-Data Controller Design For Singular Networked Cascade Control System", International Journal of Advance Research in Science and Engineering (IJARSE) August 2016 Volume No:5Issue 08 .ISSN:2319-8354

16.A.Eswari, **S.Saravanakumar**, "Adomian Decomposition Approach to a Mathematical Modeling and Analysis of Potentiometric and Amperometric Enzyme Electrodes", **International Journal of Pharmacyand Paramacetical Research (IJPPR)** November 2016 Vol.:7, Issue: 4, ISSN:2349-7203

Academic Year 2015-2016 Publications

17.S.Saravanakumar, A. Eswari, L. Rajendran , Mathematical analysis of immobilized enzyme with reaction-generated pH change on the kinetics using Asymptotic methods , International **Journal of Advanced Multidisciplinary Research** (IJAMR) 2(8) : (2015) : 98 – 119, ISSN: 2393-8870

Conference Publications:

- S. Saravanakumar," Computational and mathematical analysis of fuzzy quota harvesting model in fuzzy environment using Homotopy perturbation method"- NCETMAET 2018, March 2018, Department of mathematics, Hindustan Institute of Technology and Science, Chennai.
- S. Saravanakumar, A.Eswari, "Analytical solution of non-linear differential equations in biological control: Homotopy perturbation approach - RACS 2017, October 2017, Department of Chemistry, Sri Ramakrishna Institute of Technology, Coimbatore.
- S.Saravanakumar, "Dissipative Analysis For Random Time Varying Delay Sampled-Data Controller Design For Singular Networked Cascade Control System" in 6 th International Conference on Recent Innovations in Science, Engineering and Management (ICRISEM-16) ,Department of Mechanical Engineering , IIMT College of Engineering , Greater Noida, Uttar Pradesh(India).
- S. Saravanakumar, A.Eswari, ".Theoretical analysis of immobilized enzyme with reaction generated pH change on the kinetics system - MATAM 2015 April 2015, Department of Mathematics ,PSNA College of Engineering & Technology, Dindigul.
- ✤ S. Saravanakumar, Dr. B.Sridevi, M.Vijayalakshmi , A New Type of Intuitionistic Fuzzy Generator, Proceedings of National Workshop on Fuzzy Systems & Soft Computing in

Industrial Applications - NWFS 2012. DEC 21 -22, 2012 Department of Mathematics PSG

College of Technology, Coimbatore.

Books / Book Chapters

A book chapter entitled "A Comparative review of surfactant as an electrode modifier in comparison with other Modifiers like Nanomaterial, Polymers, Metal –organic Framework,etc" was **accepted** in the book titled "Surfactant based Electrochemical sensors and Biosensors" Elsevier Publication

1. A book chapter entitled "Model Analysis for Grapes under Weather Conditions Using Various Statistical Study Approach was published in Emerging Issues in Agricultural Sciences, *Vol. 6*, 29 July 2023, Page 167-182 https://doi.org/10.9734/bpi/eias/v6/10214F

2. A book chapter entitled "Nonlinear analysis for Malaria transmission dynamic between human and mosquito population. Part I: Effective infection rate using new technique was published in Analysis of Mathematical Science and it's Applications on June 2020 , ISBN : 978-81-947154-8-1

3. A book chapter entitled "A Mathematical Breast Cancer Model with Chemotherapy Treatment with Ketogenic Diet and Immune Booster: An Optimal Strategy" was published in the book titled "Advances in Mathematical and Statistical Modelling on Oct 2021, ISBN: 978-3-96492-334-9

Sponsored Research

Project Title	Funding Agency	Amount Rs.	Duration			
Nil						

Consultancy

S. No.	Organization/ Agency	Nature of Work	Amount in Rs.	Year
Nil				

Workshops / Seminars attended

Faculty Development Program attended (from recent)

Sl.No.	Title	No. of days	Organization	Date
1	Current Trends & Application of Mathematics	14	Vel Tech , Chennai	21.09.2022 to 04.10.2022
2	Introduction to statistical software	2	Govt Arts and Science College, Kangeyam	27.06.2021 to

				28.06.2021
3	Universal Human Value on the theme Inculcating Universal Human Values in Technical Education	5	AICTE	26.07.2021 to 30.07.2021
4	Recent Trends in Mathematics	5	SNS College of Technology, Coimbatore	02.06.2020 to 06.06.2020
5	Online Teaching via Google LMS during COVID-19 Pandemic	3	C- Abdul Hakeem College , Melvisharam	28.05.2020 to 30.05.2020
6	Descriptive Statistics through R - Programming	3	KPR Institute of Engineering and Technology, Coimbatore	23.05.2020 To 28.05.2020
7	Applications of Mathematics	4	KPR College of Arts Science Research	19.05.2020 to 22.05.2020
8	COVID 19 Pandemic: Strategies for effective work-life Balance of Academicians	5	Karpagam College of Engineering	04.05.2020 to 08.05.2020

Participation in National / International Workshops and training Programs :

Sl.No.	Title	No. of days	Organization	Date
1	Innovation Ambassador (AI) Training by AICTE Institution Innovation Council	30 contact Hours	MoE's Innovation cell & AICTE	August 2022
2	Mentoring and Counselling skills	5	NITTTR Chennai	04.08.2021 to 08.08.2021
3	Examination Reforms	3	AICTE & CHITKARA University, Chandigarh, Punjab	08.07.2021 to 10.07.2021

Events Organized

Conference

- Organizing committee member for one day International Virtual Conference on International Virtual Conference on "Recent Trends in Applied Mathematics (ICRTAM – 2023)" on 07.7.2023
- Organizing committee member for one day International Virtual Conference on International Virtual Conference on "Recent Trends in Applied Mathematics (ICRTAM – 2022)" on 07.10.2022
- Organizing committee member for one day International Virtual Conference on Global Advance Trends in Applied Mathematics, Physical Sciences and Humanities (ICGAMPH -2021) on 21.10.2021

FDP

- Faculty Development programme on "Random Processes and Queueing Theory" Models at Sri Ramakrishna Institute of Technology, Coimbatore on December19 – 22, 2016.
- Faculty Development programme on "Applied Operations Research "at Sri Ramakrishna Institute of Technology, Coimbatore on April 06-07, 2017

Workshops : Nil

Seminars : Nil

Sl. No.	Title	Platform
1	Vision of Geometry	NPTEL
2	Create a Google ads video campaign	Coursera
3	Introduction to Data Analysis using Microsoft Excel " in on	Coursera
4	Introduction to Microsoft Excel	Coursera
5	Cambridge English Entry Level Certificate in ESOL International (Entry 2) (Business)	BEC
6	Mathematics for machine learning: Linear Algebra	Coursera
7	Introductions to Linear models and Matrix Algebra	edx
8	Developing the SIR Model	Coursera
9	Introduction to Dynamical Models in Biology	NPTEL

Online Courses Completed

Awards and Recognitions Secured

- Resource person for the seminar Application of Discrete Fourier Transform and Discrete Wavelet Transform in Image Processing at our college on 27.01.2023.
- Reviewer in Asian Journal of advances in Medical College.
- Received the beloved lecture award from Alumni Association from TCE College on 15.8.2022
- Reviewer and Program committee member in IEEE World Conference on Applied Intelligence and Computing (AIC2022) during June 17-18, 2022
- Reviewed research articles in IEEE Technical sponsored conference (ICAECA) on October 8 & 9th, 2021.
- Resource person for first year induction Program at Sri Ramakrishna Institute of Technology.

Self-appraisal

Major Strengths : Hard Working, Work Dedication, User Friendly

Major Weakness: Politeness, Kindness.

Signature