

Name : J. Wilfred Samuel Raj
Designation : Assistant Professor
Department : Mathematics
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Educational Qualification:

Degree	Subject	College/ University & Place	Year Completed
B.Sc.	Mathematics	PSG College of Arts and Science, Coimbatore	2006
M.Sc.	Mathematics	Government College of Arts and Science, Coimbatore	2008
Ph.D.	Applied Mathematics	Bharathiar University	2014

Specialisation in Teaching: Calculus, Differential Equations, Numerical Methods, Fluid Dynamics, Fuzzy Mathematics

Specialisation in Research: Fluid Dynamics

Research Interests: Magnetohydrodynamics, Heat and mass transfer

Other Work Experience:

Designation	Institution/Company	Year - From (month/year) To (month/year)
Lecturer	GRD College of Arts and Science, Coimbatore	June 2008-October 2008
Assistant Professor	Sri Shakthi Institute of Engineering and Technology, Coimbatore	June 2014 - July 2018

Articles Published in National/ International Journals

- ✓ **S.P. Anjali Devi and J. Wilfred Samuel Raj**, “Thermodiffusion effects on unsteady hydromagnetic free convection flow with heat and mass transfer past a moving vertical plate with time dependent suction and heat source in a slip flow regime”, **International Journal of Applied Mathematics and Mechanics, (China) 2011, 7(21) : 20-51.**
- ✓ **S. P. Anjali Devi, S. Anne Susan Georgena and J. Wilfred Samuel Raj**, “Heat transfer and radiation effects over an unsteady MHD flow past a stretching surface embedded in a porous medium with variable heat flux in the presence of heat source or sink”, **Proceedings of 21st and 10th ISHMT – ASME Heat and Mass transfer Conference 2011, 306-311.**
- ✓ **S. P. Anjali Devi and J. Wilfred Samuel Raj**, “Numerical investigation of MHD boundary layer forced convection flow of a viscous electrically conducting fluid past a permeable shrinking sheet”, **Proceedings of International Conference on Mathematical Modeling and Applied soft computing 2012, Volume 1, 956-968. (ISSN : 978-81-923752-1-2)**
- ✓ **J. Wilfred Samuel Raj and S.P. Anjali Devi**, “ Steady MHD boundary layer flow past a shrinking sheet in the presence of chemical reaction and suction with prescribed heat and mass flux”, **Research Journal of Science and Technology, (India) 2013, 5(1), 165-172. (ISSN: 0975-4393)**
- ✓ **S.P. Anjali Devi and J. Wilfred Samuel Raj**, “Numerical simulation of Magnetohydrodynamic forced convective boundary layer flow past a stretching/shrinking sheet prescribed with variable heat flux in the presence of heat source and constant suction” **Journal of Applied Fluid Mechanics, 2014, 7(3), 415-423. (ISSN: 1735-3572), Impact Factor- 1.1, Web of Science, Science Citation Index Expanded (Sci Search).**
- ✓ **S.P. Anjali Devi and J. Wilfred Samuel Raj**, “Nonlinear radiation effects on hydromagnetic boundary layer flow and heat transfer over a shrinking surface” **Journal of Applied Fluid Mechanics, 2015, 8(3), 613-621 (ISSN : 1735-3572), Impact Factor- 1.1, Web of Science, Science Citation Index Expanded (Sci Search).**
- ✓ **S.P. Anjali Devi, M. Agneeshwari and J. Wilfred Samuel Raj**, “Radiation Effects on MHD Boundary Layer Flow and Heat Transfer Over a Nonlinear Stretching Surface With Variable Wall Temperature in the Presence of Non-Uniform Heat

Source/Sink” **International Journal of Applied Mechanics and Engineering**, 2018, 23(2), 289-305. (ISSN:1734-4492), Indexed in Scopus.

- ✓ **J. Wilfred Samuel Raj and S.P. Anjali Devi**, “Internal heat generation/absorption effects on MHD radiative flow over a non-isothermal stretching/shrinking surface embedded in a porous medium” **Applied Mathematics and Computational Intelligence**, 8(1), 2019, 39-52. (ISSN: 2289 - 1315)
- ✓ **J. Wilfred Samuel Raj and S.P. Anjali Devi**, “Computational Analysis of Hydromagnetic Flow of a Dissipative and Radiating Fluid Over a Stretching/Shrinking Surface with Prescribed Heat Flux in the Presence of Heat Source/Sink” **Journal of Advanced Research in Applied Mechanics & Computational Fluid Dynamics**, Volume 6, Issue 3&4, December 2019, 1-10. (ISSN: 2349-7661)
- ✓ **J. Wilfred Samuel Raj and S.P. Anjali Devi**, "Viscous and Ohmic Heating Effects on Hydromagnetic Convective Boundary Layer Flow Due to a Permeable Shrinking Surface with Internal Heat Generation" **International Journal of Trend in Scientific Research and Development**, 2020,4(3), 488-495. (ISSN: 2456 6470)
- ✓ **J. Wilfred Samuel Raj and S.P. Anjali Devi**, “Numerical analysis of nonlinear radiation, viscous and Ohmic dissipation effects on steady Magnetohydrodynamic forced convection flow over a shrinking surface with internal heat generation/absorption” **International Journal of Scientific Research in Mathematical and Statistical Sciences**, 2020, 7(2), 9-16. (ISSN: 2348-4519, Impact Factor: 1.021)
- ✓ **J. Wilfred Samuel Raj and S.P. Anjali Devi**, “Effects of Dissipation on Magneto-Convection Flow over a Shrinking Surface with Chemically Reactive Species under the Influence of Radiation and Internal Heat Generation” **International Journal of Scientific Research in Chemical Sciences**, 2020, 7(2), 4-12. (ISSN: 2455-3174, Impact factor: 1.130)

WORKSHOP/SEMINAR /FDP /CONFERENCE ORGANIZED

- ✓ **Inspire Internship Science Camp**, The American College, Madurai, 15-19 January 2020

- ✓ **Online Workshop on Data Analysis using SPSS,** The American College, Madurai, 28-30 May 2020
- ✓ **22nd International Conference on Mathematical, Computational Intelligence and Engineering Approaches to Healthcare, Business and Tourism Analytics (ICMCIE -2020),** 20, 21 & 22 December 2020, Fater Academy of India Jointly organized by The American College, Madurai, Tamilnadu, India
- ✓ **International Virtual Workshop on Innovative Research and IPR in Research** conducted by The American College, Madurai, Tamilnadu, 8th and 9th October 2021
- ✓ **Young Student Scientist Programme** catalysed and supported by Tamilnadu State Council for Science & Technology, Department of Higher Education, Government of Tamilnadu, Conducted at The American College, Madurai, 20th May 2022 to 3rd June 2022

WORKSHOP/SEMINAR /FDP /CONFERENCE ATTENDED

- ✓ International Workshop on Mathematical Modeling and Computational Fluid Dynamics conducted by Sathyabama University, Chennai, 13-15 Dec. 2010
- ✓ User Awareness Programme on E-resources under UGC-INFLIBNET Digital Library Consortium conducted by Bharathiar University, Coimbatore, 15th Sep. 2011
- ✓ User Awareness Programme on E-resources under UGC-INFLIBNET Digital Library Consortium conducted by Bharathiar University, Coimbatore, 30th January 2013
- ✓ Bridge Course on Mathematics conducted by Centre for Faculty Development, Anna University, Chennai, 23rd and 24th June 2014
- ✓ International Seminar on Advanced Simulation Techniques and Computational Methods conducted by Sri Krishna College of Technology, Coimbatore, 16th December 2014
- ✓ Bridge Course On Mathematics conducted by Centre for Faculty Development, Anna University, Chennai, 26th and 27th June 2015

- ✓ Faculty Development Programme on Instructional Design and Delivery System conducted by NITTTR, Chennai, 16th – 20th August 2016
- ✓ Statistics Training Programme on MS- R studio conducted by DUCEN, Chennai, and 6th - 9th September 2016
- ✓ National level workshop on Emerging Trends in Mathematics conducted by KG College of Arts & Science, Coimbatore, 8th October 2016
- ✓ Workshop on Engineering Mathematics using MATLAB conducted by Kalaignar Institute of Technology, Coimbatore, 22nd December 2016
- ✓ Faculty Development Programme on Graph theory and its applications conducted by KPR institute of Engineering and Technology, Coimbatore, July 2017
- ✓ Workshop on Computational methods for fluid dynamics conducted by Dr. N.G.P. Arts and Science College, Coimbatore, 23rd -25th November 2017
- ✓ National Workshop on Manuscript preparation and PowerPoint with LATEX conducted by Kumaraguru College of Technology, Coimbatore, 03rd February 2018
- ✓ FDP on Linear Algebra and its applications conducted by Dr. N.G.P. Arts and Science College, Coimbatore, 28th July 2018
- ✓ 67th Annual Conference of Tamilnadu Ophthalmic Association, Accredited by Tamil nadu Dr. MGR Medical University, 9th -11th August 2019
- ✓ One Week National Online Workshop “Learning Management System & E-Content Development Tools”, Hindusthan College of Arts and Science, Coimbatore, from 1st - 8th July 2020
- ✓ Online Faculty Development Programme on “ Appraisal of Mathematical Learning Outcomes in Cybergogy Environment” organized by the Department of Mathematics from 15th – 17th July 2020
- ✓ International Faculty Development Programme on “Prominence of Mathematics in Diverse Sectors” organized by Science and Humanities of Hindusthan College of Engineering and Technology from 15th – 20th July 2020

- ✓ Two Day Online Faculty Development Programme on Algebra and Analysis organized by Department of Mathematics CA , Vellalar College for Women (Autonomous), Erode, held on 16th & 17th July, 2020
- ✓ Workshop on Fundamentals of MATLAB organized by Sri Shakthi Institute of Engineering and Technology, Coimbatore, 10th and 11th December 2020.
- ✓ UGC Sponsored Third online Faculty Induction Programme conducted by Human Resource Development Centre, Bharathidasan University, Tiruchirappalli, Tamilnadu, 20th January 2021 to 18th February 2021.
- ✓ FDP on Pedagogy and Research Methods conducted by HRDC and IQAC, AMET University, 24th May 2021 to 06th June 2021.
- ✓ Refresher Course in Mathematical Sciences conducted by Teaching Learning Centre, Ramanujan College, University of Delhi from 14th June 2021 to 28th June 2021.
- ✓ Interdisciplinary Refresher Course/FDP on Research Methodology conducted by Teaching Learning Centre, Ramanujan College, University of Delhi from 20th July 2021 to 03rd August 2021.
- ✓ Inservice Teacher Training Programme, Tamilnadu State Council for Higher Education, 5th & 6th May 2022
- ✓ Online Refresher Course in Mathematics & Statistics, UGC- Human Resource Development Centre, Bharathiar University from 20th July 2022 to 2nd August 2022
- ✓ International Seminar/Webinar on Neoteric Applications in Mathematics, Thiagarajar College, Madurai, 8th and 9th November 2022
- ✓ Art and Science of Methodical Scientific Writing & Publishing in a High Impact Journal, IQAC and office of the Dean Research, The American College, Madurai 6th March 2023
- ✓ Open Source Software tools for Research, School of Advanced Sciences, Vellore Institute of Technology, Chennai, 13th - 17th March 2023
- ✓ National Workshop on Advances in Applied Mathematical Research, School of Advanced Sciences, Vellore Institute of Technology, Chennai, 30th & 31st March 2023

- ✓ Leadership Development Programme, International Network for Christian Higher Education, Lady Doak College , 17th to 19th May 2023
- ✓ Online Workshop on An introduction to MATLAB and its applications, KPR Institute of Engineering and Technology, Coimbatore, 17th August 2023
- ✓ UGC-Sponsored Online Subject Refresher Course in Mathematics, UGC-Malaviya Mission Teacher Training Centre, The Gandhigram Rural Institute-DTBU, Dindigul, 17th October to 30th October 2024

CONFERENCE/SEMINAR PRESENTATION

- ✓ **Title: Slip flow effects on unsteady MHD free convective flow with heat and mass transfer over a vertical plate with time dependent suction and sores effect**
National Conference on Advances in Applied Mathematics, 20-21 January 2011, Bharathiar University, Tamilnadu, India.
- ✓ **Title: Hall effects on MHD boundary layer free convective flow with radiative heat transfer over a permeable shrinking sheet**
56th Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM), 19-21 December 2011, Sardar Vallabhai National Institute of Technology, Surat, Gujarat, India.
- ✓ **Title: Numerical investigation of MHD boundary layer forced convection flow of a viscous electrically conducting fluid past a permeable shrinking sheet**
International Conference on Mathematical Modelling and Applied Soft Computing (MMASC 2012), 11-13 July 2012, Coimbatore Institute of Technology, Coimbatore, Tamilnadu, India.
- ✓ **Title: Steady MHD boundary layer flow past a shrinking sheet in the presence of chemical reaction and suction with prescribed heat and mass fluxes**
International Conference in Mathematical Sciences held during 8-9 March 2013, Government College, Haripur, and Himachal Pradesh, India.
- ✓ **Title: Viscous and Ohmic heating effects on MHD forced convective flow over a shrinking surface with prescribed heat flux in the presence of radiation and internal heat generation**

International Seminar on Advances in Applied Mathematics (ISAAM), 26 August 2013, Bharathiar University, Coimbatore, Tamilnadu, India.

- ✓ **Title: MHD boundary layer flow and radiative heat transfer with viscous and Joule heating over a shrinking surface in the presence of internal heat generation**

3rd International Science Congress (ISC - 2013), 8th and 9th December 2013, Karunya University, Coimbatore, Tamilnadu, India.

- ✓ **Title: Internal heat generation/absorption effects on Magneto-convective flow and radiative heat transfer over a shrinking sheet immersed in a porous medium**

National Conference on Advances in Applied Mathematics (NCAAM – 2015), 12th and 13th February 2015, Bharathiar University, Coimbatore, Tamilnadu, India.

- ✓ **Title: Dufour and Chemical reaction effects on MHD boundary layer free convection flow of a Casson fluid past a semi infinite moving vertical permeable plate with convective boundary condition in the presence of heat source**

ESN International conference on Multidisciplinary Research and Innovation (ICMRI- 2020) ,3rd-9th September 2020 organized by ESN Publications.

- ✓ **Title: Velocity Slip, Temperature Jump and radiation effects on mixed convection MHD flow due to shrinking surface with dissipation and heat generation**

22nd International Conference on Mathematical, Computational Intelligence and Engineering Approaches to Healthcare, Business and Tourism Analytics (ICMCIE -2020), 20, 21 & 22 December 2020, Fater Academy of India Jointly organized by The American College, Madurai, Tamilnadu, India.

LECTURE/INVITED TALKS GIVEN

- ✓ **Title: One day State level Seminar on Recent Trends in Pure and Applied Mathematics**

1st February 2019, Manonmaniam Sundaranar University Constituent Model College, Nagalapuram, Thoothukudi, Tamilnadu, India.

- ✓ **Title: State level Seminar on Recent Trends in Differential Equations and Graph Theory**

13th March 2020, Bishop Caldwell College, Maravanmadam, Thoothukudi, Tamilnadu, India.

- ✓ **Title: Workshop on Numerical Technique for Solving Differential Equations**

20th December 2021, P.K.R Arts College for Women, Gobichettipalayam, Tamilnadu, India.

AWARDS/FELLOWSHIPS RECEIVED

- ✓ Secured **First Rank** in M. Sc. Mathematics
- ✓ Received **University Research fellowship** from **Bharathiar University** during May 2009 - April 2012
- ✓ Qualified in **Tamilnadu State Eligibility Test 2016** in the field of Mathematics.
- ✓ Received **Cash award** for best teaching during 2017-18 at **Sri Shakthi Institute of Engineering and Technology, Coimbatore** based on students feedback

OTHER ACTIVITIES/ACADEMIC CREDENTIALS

Positions held / currently holding	Year - From (month/year) To month/year)
Washburn Hall-Superintendent	22.07.2018 To 30.09.2018
NAAC Criterion I Member	2021- till date