



Dr. B.SUNDARAVADIVOO

Department	Department of Mathematics		
Institution	Associate Professor Central University of Tamil Nadu, Thiruvarur, 610005, EMail id: bsundaravadivoo@gmail.com Mobile: +91-9944334590		
Year of Experience	Research -5 Years ; Teaching -20 years		
Research Activities	Ph.D	04 Ongoing	
	M.Phil	15 Completed	
	M.Sc	90 Completed	
Google Scholar	B. Sundara Vadivoo - Google Scholar		
Orcid	https://orcid.org/0000-0001-6322-8959		
SCI Profile	Dr. B. Sundaravadivoo (sciprofiles.com)		
Scopus	https://www.scopus.com/authid/detail.uri?authorId=58245821700		
Research Gate	B. Sundara Vadivoo (researchgate.net)		
	GOOGLE SCHOLAR	RESEARCHGATE	SCOPUS
Citations	71	87	68
H index	5	5	4
I 10 index	2	-	-
Countries Visited	United Arab Emirates	:2018 Paper Presentation	
	United Arab Emirates	:2018 Paper Presentation	
	United Arab Emirates	:2020 Paper Presentation	
Research Paper Publications	International	:16	
	National	:01	
Course Materials Prepared	National	:02	
Conference/Seminars/Quiz	Organized	:02	
	Member	:11	
Paper Presentations	International(Abroad)	:04	
	National	:05	
Conference Participated	International	:01	
	National	:12	
Invited talks	International	:04 (Within India)	
	National	:06	
	State / University	:03	
Workshop Attended	International	:01	
	National	:06	
Other Training Programs		:08	
Member of Board of studies	UG	:01	
	PG	:01	
Professional Memberships	International	:01	
	National	:02	
Reviewer/Editorial Board	International	:08	
	National	:01	
Awards	International	:00	
	National	:02	

EDUCATIONAL QUALIFICATIONS

DEGREE	SUBJECT	YEAR OF PASSING	CLASS	INSTITUTION
B.Sc	Mathematics	1996	First with Distinction	Madurai Kamaraj University
M.Sc	Mathematics	1998	First with Distinction, University Fourth Rank Holder	Madurai Kamaraj University
M.Phil	Mathematics	2009	First	Madurai Kamaraj University
Ph.D	Mathematics	2018	Awarded	Alagappa University
CSIR-NET	Mathematics	2010	Qualified	Alagappa University

TEACHING EXPERIENCE: 20 YEARS

S.NO.	DESIGNATION	FROM	TO
1	Associate Professor, Central University of Tamil Nadu, Thiruvarur	20.09.2023	Till Date
2	Asst. Professor (Level 12) (Alagappa University), Karaikudi	30.05.2022	19.09.2023
3	Asst. Professor (Stage 2) (Alagappa University), Karaikudi	29.05.2017	29.05.2022
4	Asst. Professor (Stage 1) (Alagappa University), Karaikudi	28.05.2012	28.05.2017
5	Assistant Professor, Periyar Maniammai University, Thanjavur	28.05.2011	26.05.2011
6	Assistant Professor, SPACES Institute For P.G Studies, Payakaraopeta, Visakhapatnam District, Andhra Pradesh	01.06.2003	22.05.2011

RESEARCH

Research Supervision

S.No	PROGRAM OF STUDY	COMPLETED	ONGOING
1	Ph.D	-	04
2	M.Phil	15	-
3	M.Sc.	90	-

Research Interests

- Fractional Differential Equations
- Delay Differential Equations
- Differential Inclusions
- Control Theory
- Impulsive Differential Equations
- Mathematical Modelling
- Stochastic Differential Equations
- Optimal Control
- Abstract Differential Equations
- Ramanujan's Continued Fraction
- Mathematical Biology
- Analytic Number Theory

Professional Training

- Participated in the "Orientation Programme on Assessment and Accreditation Framework of NAAC for Dual Mode Universities" which is held at Alagappa University, Karaikudi during 27 March 2023.
- Participated in the "Faculty Development Programme" which is held at Alagappa University, Karaikudi during 15 February 2023.
- Participated in the "Refresher Course" which is held at Madurai Kamaraj University, Madurai during 10-23rd November 2021.
- Participated in the Refresher Course organized by the Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry Of Education Pandit Madan Mohan Malaviya National Mission On Teachers And Teaching in collaboration with Department of Mathematics, Ramanujan College, Delhi from 31st August-14 th September 2021.
- Participated in the Faculty Development (Enrichment Program) Accreditation Quality Enhancement held in Alagappa University, Karaikudi during January 6- 12, 2017.
- Participated in the Refresher Course organized by the Academic Staff College, Pondicherry University, Puducherry from September 7-27, 2016. Participated in the Orientation Programme organized by the Academic Staff College, Madurai Kamaraj University, Madurai from May 30-June 29, 2013.
- Participated in the Orientation Programme organized by the Curriculum Development Cell, Alagappa University, Karaikudi from August 24-31, 2012.

Course Materials

M.Sc Students (DDE, Alagappa University, Karaikudi)

1. Analytic Number Theory
2. Functional Analysis

PUBLICATIONS IN JOURNAL

S No	Title	Author(s) Name	Journal Name	Year ,Page , Volume,
1.	Controllability of fractional Langevin impulsive system with proportional delay	Jothilakshmi Gopal, B.Sundara Vadivoo	International Journal of Dynamics and Control	2023, https://doi.org/10.1007/s40435-023-01306-2 , [SCI, IF:0.44]
2.	Discussion on iterative process of nonlocal controllability exploration for Hilfer neutral impulsive fractional integro-differential equation	Kanagaraj Muthuselvan, Baskar Sundaravadivoo , Kottakkaran Sooppy Nisar and Suliman Alsaeed	AIMS Mathematics	2023, 16846-16863, 8, [SCOPUS, IF:2.739]
3.	New interpretation of topological degree method of Hilfer fractional neutral functional integro-differential equation with nonlocal condition	Kanagaraj Muthuselvan, Baskar Sundaravadivoo , Suliman Alsaeed and Kottakkaran Sooppy Nisar	AIMS Mathematics	2023, 17154-17170, 8, [SCOPUS, IF:2.739]
4.	Results on nonlocal controllability for impulsive fractional functional integro-differential equations via degree theory	Kanagaraj Muthuselvan , Baskar Sundaravadivoo , Kottakkaran Sooppy Nisar , Shankar Rao Munjam , Wedad Albalawi , Abdel-Haleem Abdel-Aty	Results In Physics	2023, 106698, 51, [SCI, IF:5.3]
5.	Analysis of controllability in Caputo–Hadamard stochastic fractional differential equations with fractional Brownian motion	M. Lavanya, B. Sundaravadivoo	International Journal of Dynamics and Control	2023, https://doi.org/10.1007/s40435-023-01244-z , [SCI, IF:0.44]
6.	Controllability Criteria for Nonlinear Impulsive Fractional Differential Systems with Distributed Delays in Controls	Amar Debbouche, B.Sundara Vadivoo , Viladimir Fedorov, Valery Antonov	Mathematical and Computational Applications	2023, 13, 28, https://doi:10.3390/mca28010013 , [ESCI Publication,IF: 2.25]
7.	Nonlinear fractional order neutral-type stochastic integro-differential system with rosenblatt process - A controllability exploration	Naima Hakkar, Lavanya Muruganantham, Amar Debbouche, B. Sundaravadivoo	Proceedings of the Institute of Mathematics and Mechanics, National Academy of Sciences of Azerbaijan	2022, 68-83, 48, [SCOPUS, IF:0.518]
8.	Relative controllability analysis of fractional order differential equations with multiple time delays	B.S. Vadivoo , G. Jothilakshmi, Y. Almalki , A. Debbouche, M. Lavanya	Applied Mathematics and Computation	2022, https://doi:10.1016/j.amc.2022.127192 [SCI, Elsevier Publication, IF: 4.0]
9.	Controllability analysis of multiple fractional order integro-differential damping systems with impulsive interpretation	G. Jothilakshmi, B.S. Vadivoo , Y. Almalki, A. Debbouche	Journal of Computational and Applied Mathematics	2022, https://doi:10.1016/j.cam.2022.114204 [SCIE, Elsevier Publication, IF: 2.4]

10.	Analyze existence, uniqueness and controllability of impulsive fractional functional differential equations	K.Muthuselvan, B.Sundaravadivoo	Advanced Studies: Euro-Tbilisi Mathematical Journal	2021, 171-190 [ESCI Publication]
11.	Non-linear Stochastic Fractional Neutral-type Differential Systems with State Delay: A Controllability Interpretation	B.Sundara Vadivoo	IOP Conference Series Materials Science and Engineering	2020, https://doi: 10.1088/1757-899X/764/1/012054 [SCI, Scopus Publication, IF:0.50]
12.	Controllability analysis of nonlinear fractional order differential systems with state delay and non-instantaneous impulsive effects	B.Sundara Vadivoo	Discrete and Continuous Dynamical System Series- S	2019, https://doi: 10.3934/dcdss.2020138 [SCI, Scopus Publication, IF: 1.00]
13.	Controllability criteria of fractional differential dynamical systems with non-instantaneous impulses	B.Sundara Vadivoo , R.Raja, J. Cao, G.Rajchakit, Aly R. Seadawy	IMA Journal of Mathematical Control and Information	2019, https://doi.org/10.1093/imamci/dnz025 . [SCI, Scopus Publication, IF: 1.5]
14.	Nonlinear integrodifferential equations with small unknown parameters: A Controllability analysis problem	B.Sundara Vadivoo , R.Raja, Aly R.Seadawy, G.Rajchakit	Mathematics and Computers in Simulation	2017, https://doi.org/ 10.1016/j.matcom.2017.10.005 , S0378-4754(17)30343-9. [SCI, Elsevier Publication, IF: 4.6]
15.	Controllability analysis of nonlinear neutral-type fractional-order differential systems with state delay and impulsive effects	B.Sundara Vadivoo , R.Raja, J.Cao, H.Zhang and X.Li	International Journal of Control, Automation and Systems	2018, 659-669 ,16[SCIE, Springer Publication, IF: 3.314]
16.	A novel controllability analysis of impulsive fractional linear time invariant systems with state delay and distributed delays in control	B.Sundara Vadivoo , R.Raja, R.P. t. Agarwal, G.Rajchakit	Discontinuity, Nonlinearity, and Complexity	2018, 275-290, 7, [L & H Scientific Publishing]

PAPER
PRESENTED/PARTICIPATED IN
CONFERENCE

CONFERENCE / WORKSHOP/SEMINARS:

1. Presented a research paper entitled “Controllability of Integro-Fractional Delay Differential Equation with Non-Instantaneous Impulse via Delayed Perturbation “**The First International Workshop on Applied Mathematics**)”, which is held at University Constantine 1, ALGERIA, during 06-08, December 2022.

2. Presented a research paper entitled "A Controllability Elucidation- impulsive fractional higher order neutral delay differential systems "**Third International Conference on Mathematics and Statistics**)", which is held at American University of Sharjah , Sharjah, UAE during 07-09, February 2020.
3. Presented a research paper entitled "Non-linear Stochastic Fractional Neutral- type Differential Systems with State Delay : A Controllability Interpretation "**International Conference on Advances in Materials Processing and Charecterization 2019**)", which is held at Bannari Amman Institute of Technology , Sathyamangalam, Tamilnadu during 10-11, September 2019.
4. Presented a research paper entitled "Controllability analysis of nonlinear fractional order differential systems with state delay and non-instantaneous impul sive effects"**Delay Differential Equations: Theory, Applications and New Trends (DDEs-TANTs 2018)**", which is held at United Arab Emirates University , Al-Ain, UAE during 3-4, October 2018.
5. Presented a research paper entitled "Controllability analysis for nonlinear neu tral type fractional differential systems with state delay "in the **International Conference on Science, Engineering and Technology ICSET** which was heldat Dubai, United Arab Emirates 26th - 27th September, 2018.
6. Presented a research paper entitled "Controllability of non linear fractional integro differential equations with state delay dynamical systems "in the **Interna- tional conference on Mathematical Modeling and Computational Methods in Science and Engineering** which was held at Alagappa University, Karaikudi during 20-22 February 2017.
7. Presented a research paper entitled "Controllability of non linear fractional integro differential equations with delay dynamical systems " in the **International Conference on Emerging Trends in Engineering and Technology** which was held at Arunachalla College of Engineering and Technolgy, during 9-10 December 2016.
8. Presented a research paper entitled "Relative Controllability of Fractional Dy namical Systems With Distributed Delays and Impulses ", in the **International Conference on Innovations in Computer Science and Technology** which was held at, Alagappa University, Karaikudi during 4-5th April 2016.
9. Presented a research paper entitled "Improved Controllability Results For Nonlinear Neutral Fractional Volterra type Integro Differential inclusions with Impulses Mathematics ", in the **First Andhra Pradesh Science Congress** which was heldat Sri Venkateswara University, Tirupati during 27-29th January 2016.
10. Participated in the online "**Third national conference on control and inverse problems** ",which is jointly organized by Central University of Kerala, Central University of Tamilnadu, Periyar University, during 25- 26 th February 2022.
11. Participated in the "**Recent Advances in Fractional Calculus** ",which is held at Charotar University of Science and Technology (CHARUSAT) during September 30th to October 1 st 2021.
12. Participated in the "**First online conference on Modern Fractional Calculus and its Applications** ",which is held at Biruni University, Istanbul, Turkey during 04- 06 th December 2020.
13. Participated in the "**First Andhra Pradesh Science Congress** entitled as "Improved Controllability Results For Nonlinear Neutral Fractional Volterra type Integro Differential inclusions with Impulses Mathematics", which is held at Sri Venkateswara University ,

Tirupati during 27-29th January 2016.

14. Participated in the “**National Level Conference on Impact of Electronic Resources On Teaching, Learning and Research; Issues and Opportunities**”, which is held at Alagappa University, Karaikudi during 24-25th April 2015.
15. Participated in the “**International Conference on Algebra and Discrete Mathematics**”, which is held at Government College Katapana, Kerala during 4-6th March 2014.
16. Participated in the “**National Conference on Recent Advances in Numerical Methods and its Applications**”, which is held at Pondicherry University, Pondicherry during 27-28th January 2014.
17. Participated in the “**National Conference on Labelings and Decomposition of Graphs**”, which is held at The Madura College, Madurai during 29-30th August 2013.
18. Participated in the “**One day International Conference on Recent Trends in Discrete Mathematics and its Applications to Science and Engineering**”, which is held at Periyar Maniammai University, Thanjavur on 3rd December 2013.
19. Participated in the “**National Conference on Frontiers in Analysis and Differential Equations**”, which is held at Bharathidasan University, Tiruchirappalli during 19-20th December 2012. 20. Participated in the “**International Conference on Legacy of Srinivasa Ramanujan**”, which is held at Srinivasa Ramanujan Centre SASTRA University, Kumbakonam during 14-15th December 2012.
21. Participated in the “**Advanced Level workshop on Integral Equations Solvability Analysis and Applications**”, which is held at Jaypee University of Information Technology, Wagnaghat during 19-25th October 2015.
22. Participated in the “**Advanced Level workshop on Computational Methods For Control Problems**”, which is held at Mar Ivanios college, Thiruvananthapuram during 16-21th March 2015.
23. Participated in the “**Lecture workshop on Applicable Mathematics**”, which is held at K.S. Rangasamy College of Arts and Science, Tiruchengode during 12-14th February 2015.
24. Participated in the “**One day workshop on Financial Mathematics**”, which is held at Madurai Kamaraj University, Madurai on 27th March 2013.
25. Participated in the “**One day workshop on MATLAB Lecture-II**”, which is held at Periyar Maniammai University, Thanjavur on 10th March 2012.
26. Participated in the “**One day workshop on Applications of MATLAB Software in Mathematical Field**”, which is held at Periyar Maniammai University, Thanjavur on 25th February 2012.
27. Participated in the “**One day Seminar on Statistics and its Applications in Engineering**”, which is held at Periyar Maniammai University, Thanjavur on 18th April 2012.
28. Participated in the “**One day seminar on Contributions of some women Mathematicians from India**”, which is held at Periyar Maniammai University, Thanjavur on 8th March 2012.

Resource Person in Various Capacities

1. Acted as a Chair Person in the "International Conference on Fractional Calculus: Theory, Applications and Numerics", Department of Mathematics, National Institute of Technology Puducherry, Karaikal, India during 27-29 January 2023.
2. Invited as a Chief Guest and delivered a talk on "Introduction to Fractional Differential Equation", Department of Mathematics, E.M.G. Yadava Women's College, Madurai, 10 February 2023, Coimbatore.
3. Acted as a Chair Person in the "Recent Development and Techniques in Pure and Applied Mathematics", Alagappa University, Karaikudi, India during 23-24 March 2023.
4. Invited as a Resource Person and delivered a talk in the "International Conference on Contemporary Approaches in Sciences and Humanities: Future Prospects", Department of Mathematics, Nirmala College For Women, 2-3 February 2023, Coimbatore.
5. Invited as a Resource Person and delivered a talk in the "National Conference on Nonlinear Fractional Differential Equations", Department of Mathematics, University of Madras, Chennai on March 15, 2022.
6. Invited as a Resource Person and delivered a talk in the "National Conference On Applied Mathematics" which is entitled "Applications Of Fractional Differential Equations" organised by Sudharsan College Of Arts And Science, Pudukottai on June 7, 2021.
7. Invited as a Resource Person and delivered a talk in the "National Conference on Stochastic Modeling and Computational Techniques", Department of Mathematics, University of Madras, Chennai on March 25, 2021.
8. Acted as a Chair Person in the "International Conference On Mathematical Modelling And Computational Intelligence", Alagappa University, Karaikudi, India during 22-24 February 2020.
9. Acted as a Chair Person in the "National Conference On Differential Equations And Dynamical Systems", organised by NIT, Puducherry, India during 05-06 April 2019.
10. Invited as a Chief Guest and delivered a talk in the "PG Mathematics Association", Department of Mathematics, Seethalakshmi Achi College for Women, Pallathur on August 13, 2019.
11. Invited as a Chief Guest and delivered a talk in the "State Level A. Michaelraj Endowment Lecture", organized by Department of Mathematics, Ananda College (Autonomous), Devakottai on February 2, 2019.
12. Invited as a Chief Guest and delivered a talk in the "National mathematics Day", organized by Department of Mathematics, Umayal Ramanathan College for Women, Karaikudi on December 22, 2017.
13. Acted as a Chair Person in the "International Conference On Mathematical Modeling and Computational Methods In Science And Engineering", Alagappa University, Karaikudi, India during 20-22 February 2017.

External Services & Additional Responsibilities

Journal Reviewer

- Member of the Reviewer board in ISA Transactions, Elsevier publication.
- Member of the Reviewer board in Alexandria Engineering Journal, Elsevier publication.

- Member of the Reviewer board in Mathematics and Computers in Simulation, Elsevier publication.
- Member of the Reviewer board in Mathematical Methods in the Applied Sciences, Wiley online Publications.

Previous organisation (Alagappa University)

- Acted as a Co-ordinator for the State Level Quiz Contest on February 28th, 2023.
- Member of the UGC SAP-DRS FIST (Level-II) in the Department of Mathematics.
- Acted as a Student Counselling Cell coordinator in Department of Mathematics from 2015 to till date.
- Acted as a Co-ordinator for the National Mathematics Day 2018 on December 24th, 2018.
- Acted as a member of the squad team for April 2018 Regular Examinations of four Affiliated Colleges.
- Acted as a member of the squad team for November 2017 Regular Examinations of our Affiliated Colleges.
- Acted as a Co-ordinator for the State Level Quiz Contest 2016 on March 15th, 2017.
- Acted as a member of the squad team for April 2016 Regular Examinations of four Affiliated Colleges.
- Member of the UGC SAP-DRS (Level-I) in the Department of Mathematics.
- Deputed as an University Representative to oversee the conduct of Distance Education Examination for December 2012, May 2013, May 2014, December 2014, May 2015, December 2015 and May 2016, December 2016, December 2022, respectively.
- Acted as a Co-ordinator for Village Placement Programme (VPP) for the academic year 2014-2015.

Awards

- Awarded University IV th rank in M.Sc. Mathematics, C.P.A. College, Bodinayakanur.

Technical Skills

- MAT LAB.
- Latex Software.

Declaration

I hereby declare that the particulars furnished above by me are true to the best of my knowledge.

Dr.B.Sundaravadivoo