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Present Position

Professor, Department of Mathematics, College of Engineering Guindy, Anna University, Chennai from January-2009.

Previous Positions

- Associate professor, , College of Engineering Guindy, Anna University, Chennai during January-2006 and December-2008.
- Assistant Professor, Department of Mathematics, College of Engineering Guindy, Anna University, Chennai during April-2002 and December-2005.
- Visiting Faculty, Department of Mathematics, College of Engineering Guindy, Anna University, Chennai during June-2001 and April-2002.

Other Employment

- Visiting Assistant Professor, Department of Mathematical And Computer Science Colorado School of Mi for 1 year.
- Visiting Assistant Professor, Department of Mathematics University of Tennessee Knoxville, USA for 1.7 years.
- NBHM Post Doctoral Fellow, Department of Mathematics IIT Bombay for 2.1 years.
- Research Associate, Department of Mathematics, University of Bombay for 1.4 years.

Degree

- ❖ M.Sc. in MATHEMATICS , The American college, MADurai, Madurai Kamaraj University (1985 - 1987).
- ❖ B.Sc. in MATHEMATICS , The American College, Madurai, Madurai Kamaraj University (1982 - 1985).

Research Degree

- ❖ Ph.D. in Numerical Analysis, Numerical Functional Analysis from Faculty of Science, Indian Institute of Technology Bombay, IIT Bombay, Powai, Mumbai (1988 - 1994).
Title: Galerkin Finite Element Methods for Parabolic Free Boundary Problems. .

Research Guidance

Number of Ph.D Scholars Guided	: 4
Number of Ph.D Scholars Guiding	: 4

Papers Published in Journals

Research Papers Published in International Journals	: 23
Research Papers Published in National Journals	: 0

1. L.Jones Tarcus and A.K.Pani, " On superconvergence results and negative norm estimates for an unidimensional single phase Stefan problem.", Numerical Functional Analysis and Optimization, published by Taylor & Francis. pp. 153 - 175 (1995).
2. L.Jones Tarcus , A.K.Pani and S.Padhy, "A priori L2 error estimates for single phase Stefan like problem in one space dimension. ", Numerical Methods for Partial Differential Equations , published by Wiley . Issue 4, pp. 393 (1997).
3. L.Jones Tarcus and A.K.Pani, "A Qualocation method for a semilinear second order two-point boundary value problem", Pitman Research Notes in Mathematics , published by Longman Scientific & Technical. Issue 1, pp. pp.128-144 (1998).
4. L.Jones Tarcus Doss, "Mixed finite element method for single phase Stefan problem", Journal of Analysis, published by Forum De Analystes. Issue 1, pp. pp.183-194. (2001).
5. L. Jones Tarcus Doss and Amiya K. Pani, " A qualocation method for an unidimensional single phase semilinear Stefan problem. ", IMA Journal of Numerical Analysis, published by Oxford University Press . Vol. 25, Issue 1, pp. pp.139 -159 (2005).
6. L.Jones Tarcus and A.K.Pani, " Semidiscrete qualocation method for Stefan problem", Industrial Mathematics, published by Narosa. pp. pp. 105-120. (2006).
7. L.Jones Tarcus Doss and T.Essakkiappan, "The Equivalence between the Mann and Ishikawa Iterations for Generalized Contraction Mappings in a Cone.", Applied Mathematics, published by Scientific Research. Vol. 2011, Issue 2, pp. 1369-1371 (2011).
8. L.Jones Tarcus Doss, P.Arathi, "A bandwidth reduction algorithm for L-shaped and Z-shaped grid structured graphs", Operations Research Letters, published by Elsevier. Vol. 39, pp. 441-446 (2011).
9. L.Jones Tarcus, P.Arathi and Kanaka Durga, "A Constructive Bandwidth Reduction Algorithm.", International Journal of Operational Research, published by Inderscience. pp. pp.308-320. (2012).

10. A.P.Nandini, "Discrete Mixed Petrov-Galerkin Finite Element Method for a fourth order Two Point Boundary Value Problem", International Journal of Mathematics and Mathematical Sciences, published by doi:10.1155/2012/962070. pp. Article ID 962070 (2012).
11. L.Jones Tarcus Doss, A.P.Nandini,, " An H1-Galerkin mixed finite element method for the extended Fisher-Kolmogorov equation," , International Journal of Numerical Analysis and Modeling, series B, published by Springer-Verlag. pp. 460-485 (2012).
12. J.Prabhakar, L.Jones Tarcus Doss et.al, "Piecewise Straight Line Approximation of Curve Existing in Slightly Curved Mesio Buccal Root Canal of Mandibular First Molar", Int. J. Morphol., Vol. 31, Issue 1, pp. 131-135 (2013).
13. S.Prabhakar, L.Jones Tarcus Doss, "Consistency and unconditional stability of a positive upwind scheme for one dimensional species transport equation", Springer Proceedings, (2014).
14. S.Prabhakar, L.Jones Tarcus Doss, "Total variation diminishing finite volume schemes for one dimensional advection-diffusion equation and the relationship between flux limiter and mesh parameters.", International Journal of Pure and Applied Mathematics, published by Academic Publisher. Issue 12, (2015).
15. L.Jones Tarcus Doss, P.Arathi, " A Constructive Bandwidth Reduction Algorithm - A Variant of GPS Algorithm", AKCE International Journal of Graphs and Combinatorics,, published by Elsevier Publications. Issue 3, pp. 241 - 254. (2016).
16. L.Jones Tarcus Doss, A.P.Nandini, Devaraj, " Mixed Quasilinearization Method for Fourth Order Two-Point Boundary Value Problems", AIP Conference Proceedings, published by American Institute of Physics. Vol. 1830, Issue 20027, pp. doi: 10.1063/1.4980890 (2017).
17. L.Jones Tarcus Doss, N.Kousalya,S.Sundar, " A Finite Pointset Method for Biharmonic Equation Based on Mixed Formulation," , International Journal of Computational Methods, published by World Scientific. Vol. 15, Issue 1, pp. <https://doi.org/10.1142/S0219876218500688> (2017).
18. L.Jones Tarcus Doss, A.P.Nandini,, " Fourth order H1-Galerkin Mixed Finite element method for Kuramoto-Sivashinsky equation. ", Numerical Methods for Partial Differential Equations, published by John Wiley. (2018).
19. L.Jones Tarcus Doss, N.Kousalya, "Finite Pointset Method for biharmonic equations", Computers and Mathematics with Applications, published by Elsevier Publications. Vol. 75, Issue 10, pp. 3756-3785 (2018).
20. "A Finite Pointset Method for Extended-Fisher Kolmogorov Equation Based on Mixed Formulation," , Journal of Computational Methods, published by World Scientific. pp. <https://doi.org/10.1142/S021987622050019X> (2020).
21. M. P. JEYANTHI, S. GANESH, L. J. T. DOSS,, A. PRABHU, " NUMERICAL SOLUTION OF MAGNETOHYDRODYNAMIC FLOW PROBLEM USING RADIAL BASIS FUNCTION BASED FINITE DIFFERENCE METHOD", Digest Journal of Nanomaterials and Biostructures, published by Forum of Chalcogenides. Vol. 15, Issue 4, pp. 1175-1187 (2020).

22. L. Jones Tarcus Dos, S.Prabhakaran, " Total variation diminishing finite volume scheme for multi dimensional multi species transport with first order reaction network.", Mathematical Analysis and Computing, Springer Proceedings in Mathematics & Statistics, published by Springer. Vol. 344, Issue 1, pp. 481-494 (2021).
23. S.Prabhakaran, L. Jones Tarcus Doss, " Weighted Average Approximation in Finite Volume Formulation for One-Dimensional Single Species Transport and the Stability Condition for Various Schemes", Mathematical Analysis and Computing, Springer Proceedings in Mathematics & Statistics, published by Springer. Vol. 344, Issue 1, pp. 459-479 (2021).

Papers Presented in Programmes

Research Papers Presented in International Programmes : 3
Research Papers Presented in National Programmes : 2

1. L.Jones Tarcus Doss, "Qualocation Method for Stefan Problem" presented in a International level conference on Conference on Recent Advances in Numerical Analysis, organised by International Center for Theoretical Physics, Trieste, Italy, Italy from 23-Sep-1996 to 27-Sep-1996.
2. "A Qualocation method for a semilinear second order two-point boundary value problem" presented in a International level conference on International Conference on Functional Analysis with Applications, organised by Aligargh Muslim University, Aligargh, India from 16-Dec-1996 to 20-Dec-1996.
3. "Semidiscrete qualocation method for Stefan problem" presented in a International level conference on International Conference and Workshop on Industrial Mathematics , organised by Indian Institute of Technology, Bombay, India from 02-Dec-2002 to 09-Dec-2002.
4. L.jones Tarcus Doss, "On Qualocation methods for differential equations" presented in a National level workshop on National conference on Nonlinear Analysis and Mathematical Modelling, organised by Madurai Kamaraj University, Madurai, India from 29-Mar-2011 to 30-Mar-2011.
5. L.Jones Tarcus Doss, "Weak solutions to Partial Differential Equations" presented in a National level seminar on Workshop on Mathematical Approach to Physical Sciences, organised by SSN College of Engineering, India from 14-Feb-2013 to 15-Feb-2013.

Sponsored Projects Completed

1. "Mesh-Less Finite Volume Method for Three Dimensional Unsteady State Groundwater Flow and Transport through Sat- urated Porous Medium"" (March-2013 - April-2017). Project Cost: 13.00.

Programme Organized

1. Organisator, National level workshop on "Workshop on Computational Mathematics " from 07-Mar-2002 to 08-Mar-2002.

2. Joint Organisr, National level workshop on "Faculty Development Training Programme on Engineering Mathematics I" from 03-Jan-2013 to 10-Jan-2013.

Programme Attended

1. Participated in a National level workshop on "Instructional Conference on Differential Equations." organized by TIFR center, IISc Campus, Bangalore 560 012 , India from 07-May-1990 to 25-May-1990.
2. Participated in a National level workshop on "Indo-French instructional conference on Mathematical methods for Partial Differential Equations." organized by TIFR center, IISc Campus, Bangalore 560 012., India from 27-Jun-1994 to 02-Jul-1994.
3. Participated in a International level workshop on "School on Numerical Simulation for PDE : theory, algorithms and applications ." organized by ICTP, Trieste, Italy. , Italy from 09-Sep-1996 to 27-Sep-1996.
4. Participated in a National level workshop on "Instructional Conference on Nonlinear Functional analysis and application to Partial Differential Equations. " organized by Institute of Mathematical Sciences, Taramani, Madras. , India from 03-Feb-1997 to 21-Feb-1997.
5. Participated in a International level conference on "International Conference and Workshop on Industrial Mathematics " organized by IIT Bombay, Mumbai- 400 076., India from 02-Dec-2002 to 09-Dec-2002.
6. Participated in a International level conference on "Indo-French workshop on "Partial Differential Equations and applications" ." organized by Maths. Dept. IISc Bangalore 560 012 , India from 07-Feb-2005 to 12-Feb-2005.
7. Participated in a International level workshop on "Workshop on "Scientific Computation, Numerical Analysis and applications" " organized by Maths. Dept. IISc Bangalore 560 012 , India from 04-Jul-2005 to 15-Jul-2005.
8. Attended a National level Short Course on "TEQIP Funded One-Day workshop on "Mentoring Youth and Adolescents"" organized by Anna University Chennai - 25 , India from 16-May-2007 to 16-May-2007.
9. Participated in a National level workshop on "AICTE Sponsored QIP Short term course of "Computer Networks: Fundamentals of State-of-the-Art Technologies" " organized by RCC, Anna University Chennai , India from 18-Feb-2008 to 29-Feb-2008.
10. Participated in a National level workshop on "AICTE Sponsored QIP Short term course of "Recent Developments in Network Security" " organized by RCC, Anna University Chennai , India from 02-Mar-2009 to 14-Mar-2009.
11. Participated in a National level workshop on "Faculty Development Training Programme on Probability and Queueing Theory " organized by Department of MAtematics, Anna University Chennai , India from 29-Nov-2010 to 07-Dec-2010.

12. Attended a National level seminar on "Recent Trends in Partial Differential Equations and Applications" organized by Department of Mathematics, University of Hyderabad, India from 18-Mar-2012 to 19-Mar-2012.

Special Repräsentations

1. Member of the Experts Committee to frame the sy in Central University of Tamilnadu from 05-May-2011 to 22-Dec-2011.
2. Member of the Experts Committee to frame the syllab in Tamilnadu Open University from 19-Mar-2013 to 22-Mar-2013.

Honours

1. "(DAE) Dr.K.S.Krishnan fellowship " given by Department of Atomic Energy, Govt. of INDIA from India (1989).
2. " NBHM Post-doctoral fellowship " given by National Board for Higher Mathematics, Department of Atomic Energy from INDIA (1995).
3. "CSIR Research Associateship" given by Council of Scientific and Industrial Research, Govt. of India from INDIA (1995).

Experience Abroad

1. Visited University of Tennessee Knoxville, USA from 01-Aug-1996 to 31-Dec-1999. Purpose of visit :Visiting Professor.
2. Visited I.C.T.P, Trieste, Italy from 09-Sep-1996 to 27-Sep-1996. Purpose of visit :To attend conference and summer school.
3. Visited Colorado School of Mines, USA from 01-Jan-2000 to 31-Dec-2000. Purpose of visit :Visiting Professor.
4. Visited ICIAM 2015, Beijing, China, China from 10-Aug-2015 to 14-Aug-2015. Purpose of visit :Participating Conference.
5. Visited University of Oxford, UK from 01-Sep-2015 to 04-Sep-2015. Purpose of visit :Participating Conference.
6. Visited "4th International Conference on Mathematical Sciences, Universiti Kebangsaan Malaysia, Malaysia from 15-Nov-2016 to 17-Nov-2016. Purpose of visit :Participating Conference.

Invited Lectures

1. Delivered a Lecture on "On Qualocation methods for differential equations" in National conference on Nonlinear Analysis and Mathematical Modelling organized by Department of Mathematics, Madurai Kamaraj University, Madurai (30-Mar-2011).

2. Delivered a Lecture on "Sobolev spaces and Weak solution of PDE" in Workshop on Mathematical Approach to Physical Sciences organized by Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam, OMR, Chennai (15-Feb-2013).

Extension & Outreach Programme

1. Joint Organiser, Resource person, Faculty Development and Training Programme on Engineering Mathematics - I , participated by Faculty members from Engineering colleges affiliated to Anna University and funded by Centre for Faculty Development, Anna University, Chennai at Department of Mathematics, Anna University during 03-Jan-2013 and 10-Jan-2013.
No. of participants: 50.