Curriculum Vitae

Dr. P. Sam Johnson
Professor
Department of Mathematical and Computational Sciences
National Institute of Technology Karnataka, Surathkal
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| **Research Interests** | : | Functional Analysis and Operator Theory |

Academic Qualifications :

1995-1998	:	Bachelor of Science (B.Sc.) in Mathematics Department of Mathematics Alagappa University, Karaikudi, India Aggregate Percentage : 87.17%
1998-2000	:	Master of Science (M.Sc.) in Mathematics Department of Mathematics Alagappa University, Karaikudi, India Aggregate Percentage : 78.35%
2000-2001	:	Master of Philosophy (M.Phil.) in Mathematics Department of Mathematics Alagappa University, Karaikudi, India Aggregate Percentage : 84.60%
2001-2005	:	Doctor of Philosophy (Ph.D.) in Mathematics Department of Mathematics Alagappa University, Karaikudi, India Supervisor : Prof. C. Ganesa Moorthy Examiner : Prof. P. Veeramani (IIT Madras) Title of the Thesis : A Study on Closed Range Operators

Teaching Experiences :

Nov 2004 - May 2005	:	Teaching Assistant Alagappa University, Karaikudi
Jun 2005 - Jul 2006	:	Lecturer SRM University, Chennai
Aug 2006 - Jan 2008	:	Lecturer SSN College of Engineering, Chennai
Jan 2008 - May 2018	:	Assistant Professor National Institute of Technology Karnataka, Surathkal
May 2018 - Oct 2023	:	Associate Professor National Institute of Technology Karnataka, Surathkal
Oct 2023 - Till Date	:	Professor National Institute of Technology Karnataka, Surathkal

Professional Recognitions / Fellowships Received :

1998-2000	:	Received Merit Scholarship in M.Sc.
2001	:	University Second Rank in M.Phil.
2003	:	Qualified National Eligibility Test (NET)
2003-2005	:	Received Junior Research Fellowship (JRF)

Publications in Journals :

(1) Athira Satheesh K, P. Sam Johnson and K. Kamaraj, *Reverse Order Law for Moore-Penrose Inverse of Closed Operators and its Applications*, Indian Journal of Pure and Applied Mathematics (accepted for publication).

(2) Ayyanar K, P. Sam Johnson and A. Senthil Thilak, *Frame Scaling by Graphs*, Indian Journal of Pure and Applied Mathematics (accepted for publication).

(3) Arup Majumdar and P. Sam Johnson, *A-Approximate Point Spectrum of A-Bounded Operators in Semi-Hilbertian Spaces*, Indian Journal of Pure and Applied Mathematics (accepted for publication).

(4) Sachin Manjunath Naik and P. Sam Johnson, *Complementable Operators and their Schur Complements*, Indian Journal of Pure and Applied Mathematics (accepted for publication).

(5) Arup Majumdar and P. Sam Johnson, *The Moore-Penrose Inverses of Unbounded Closable Operators and the Cartesian Product of Closed Operators in Hilbert Spaces*, Linear and Multilinear Algebra (accepted for publication).

(6) Shah Jahan and P. Sam Johnson, *Riesz Bases in Krein Spaces*, Indian Journal of Pure and Applied Mathematics (accepted for publication).

(7) K. Mahesh Krishna and P. Sam Johnson, *Lipschitz p-Approximate Schauder Frames*, Kragujevac Journal of Mathematics, Volume 50, Number 2 (2026), pages 217-230.

(8) Sachin Manjunath Naik and P. Sam Johnson, *Convergence of Complementable Operators*, Linear Algebra and its Applications, Volume 719 (2025) 66-92.

(9) Mohanarangan, H., P. Sam Johnson, and Harikrishanan P.K. *Direct Sum of Lower Semi-frames in Hilbert Spaces*, Gulf Journal of Mathematics, 19(2), 412-423, 2025.

(10) A. Senthil Thilak, Ayyanar K and P. Sam Johnson, *On the Construction and Properties of Frames Using Incidence Matrix of Graphs and Their Spectra*, Proceedings of the Jangjeon Mathematical Society, 27 (2024), No. 4, pp. 549 - 564.

(11) Arup Majumdar, P. Sam Johnson and R. N. Mohapatra, *Hyers-Ulam Stability of Unbounded Closable Operators in Hilbert Spaces*, Mathematische Nachrichten, 297, No.10 (2024), 3887-3903.

(12) Shah Jahan and P. Sam Johnson, *Frame Operators for Frames in Krein Spaces*, European Journal of Mathematical Analysis, 4 (2024), Article 1 (10 pages).

(13) K. Mahesh Krishna and P. Sam Johnson, *Operator-Valued p-Approximate Schauder Frames*, J. Ramanujan Math. Soc. 38, No.3 (2023), 369-392.

(14) Athira Satheesh K, K. Kamaraj and P. Sam Johnson, *Algebraic Proofs of Characterizing Reverse Order Law for Closed Range Operators in Hilbert Spaces*, Eurasian Mathematical Journal, Volume 14, Number 3 (2023), 08-25.

(15) K. Mahesh Krishna and P. Sam Johnson, *Approximately Dual p-Approximate Schauder Frames*, Aust. J. Math. Anal. Appl. 20 (2023), No. 1, Article 22, 9 pages.

(16) K. Kamaraj, P. Sam Johnson and Athira Satheesh K, *Reverse Order Law for Generalized Inverses with Indefinite Hermitian Weights*, Filomat 37:3 (2023), 699-709.

(17) K. Mahesh Krishna and P. Sam Johnson, *Dilations of Linear Maps on Vector Spaces*, Operators and Matrices, Volume 16, Number 2 (2022), 465-477.

(18) P. Sam Johnson, *Closed EP and Hypo-EP Operators on Hilbert Spaces*, The Journal of Analysis (2022) 30:1377-1390.

(19) K. Mahesh Krishna and P. Sam Johnson, *Commutators Close to the Identity in Unital C*-Algebras*, Proceedings - Mathematical Sciences, Vol. 132, Issue 1, June 2022, Article 11, 08 pages.

(20) K. Kamaraj, P. Sam Johnson and Sachin Manjunath Naik, *Generalized Principal Pivot Transform and its Inheritance Properties*, The Journal of Analysis (2022) 30:1241-1256.

(21) Rashid A. and P. Sam Johnson, *P-Operators on Hilbert Spaces*, Palestine Journal of Mathematics, Vol.11 (3) 2022, 85-89.

(22) K. Mahesh Krishna and P. Sam Johnson, *Factorable Weak Operator-Valued Frames*, Annals of Functional Analysis, Vol. 13 (2022) No.1, Article 11, 36 pages.

(23) K. Mahesh Krishna and P. Sam Johnson, *The Noncommutative $\ell_1 - \ell_2$ Inequality for Hilbert $C*$-Modules and the Exact Constant*, Nonlinear Functional Analysis and Applications, Volume 27, Issue 2, 249-259, 2022.

(24) K. Mahesh Krishna and P. Sam Johnson, *Expansion of Weak Reconstruction Sequences to Approximate Schauder Frames for Banach Spaces*, Asian-European Journal of Mathematics, Vol. 15, No. 3 (2022) 2250060 (6 pages)

(25) K. Mahesh Krishna and P. Sam Johnson, *Frames for Metric Spaces*, Results in Mathematics, Vol. 77, Issue 1, February 2022, Article 49, 30 pages.

(26) K. Mahesh Krishna, P. Sam Johnson and R. N. Mohapatra, *Multipliers for Operator-Valued Bessel Sequences and Generalized Hilbert-Schmidt Classes*, Journal of Applied Mathematics and Informatics, Vol. 40(2022), No. 1-2, pp. 153-171.

(27) K. Mahesh Krishna and P. Sam Johnson, *Dilation Theorem for p-Approximate Schauder Frames for Separable Banach Spaces*, Palestine Journal of Mathematics, Vol.11 (2) 2022, 384-394.

(28) K. Mahesh Krishna and P. Sam Johnson, *Perturbation of p-Approximate Schauder Frames for Separable Banach Spaces*, Poincare Journal of Analysis and Applications, Vol.8, No.1(II) (2021), 15-24.

(29) K. Mahesh Krishna and P. Sam Johnson, *New Identity on Parseval p-Approximate Schauder Frames and Applications*, Journal of Interdisciplinary Mathematics, Vol. 24 (2021), No. 7, 1751–1760.

(30) P. Sam Johnson, Vinoth A and K. Kamaraj, *Fuglede-Putnam Type Commutativity Theorems for EP Operators*, Malaya J. Mat. 9 (2021), No. 1, 709-714.

(31) K. Mahesh Krishna and P. Sam Johnson, *Towards Characterizations of Approximate Schauder Frame and Its Duals for Banach Spaces*, J. Pseudo-Differ. Oper. Appl., 12(1), 2021, Article 9, 13 pages.

(32) Athira Satheesh K, P. Sam Johnson and K. Kamaraj, *Estimates of Norms on Krein Spaces*, Aust. J. Math. Anal. Appl. 17 (2020), No. 2, Article 18, 10 pages.

(33) P. Sam Johnson, *On Semiclosed Operators with Closed Range*, Canad. J. Appl. Math. 2 (2020), No. 2, 18-22.

(34) P. Sam Johnson and S. Balaji, *Convergence of Operators with Closed Range*, Khayyam J. Math. 5 (2019) No. 2, 132-138.

(35) Mahesh Krishna and P. Sam Johnson, *Quotient Operators and the Open Mapping Theorem*, Filomat 32:18 (2018), 6221-6227.

(36) P. Sam Johnson and Vinoth A, *Product and Factorization of Hypo-EP Operators*, Special Matrices 6 (2018), 376-382.

(37) B. Parvathalu and P. Sam Johnson, *Construction of Mercedes-Benz Frame in $\mathbb{R}^n$*, International Journal of Applied and Computational Mathematics, December 2017, Issue 1 Supplement, 511-519.

(38) G. Ramu and P. Sam Johnson, *Frames for Operators in Banach Spaces*, Acta Mathematica Vietnamica, 42 (2017), 665-673.

(39) Vinoth A and P. Sam Johnson, *On Sum and Restriction of Hypo-EP Operators*, Funct. Anal. Approx. Comput. 9 (1) (2017), 37-41.

(40) G. Ramu and P. Sam Johnson, *Frame Operators of K-frames*, Boletin de la Sociedad Espanola de Matematica Aplicada, SeMA Journal (2016) 73 : 171-181.

(41) P. Sam Johnson and G. Ramu, *Class of Bounded Operators associated with an Atomic System*, Tamkang Journal of Mathematics, Vol.46, No.1, 85-90, March 2015.

(42) P. Sam Johnson, *Multiplication Operators with Closed Range in Operator Algebras*, Journal of Analysis and Number Theory, Vol. 1, No.1, 1-5, 2013.

(43) P. Sam Johnson and S. Balaji, *On Semiclosed Subspaces of Hilbert Spaces*, International Journal of Pure and Applied Mathematics, Vol. 79, No. 2, 2012, 249-258.

(44) P. Sam Johnson and S. Balaji, *Hyers-Ulam Stability of Linear Operators in Frechet Spaces*, Applied Mathematics and Information Sciences, Vol. 6, No.3, 525-528 (2012).

(45) P. Sam Johnson and S. Balaji, *On Linear Operators with Closed Range*, Journal of Applied Mathematics and Bioinformatics, Vol.1, No.2, 2011, 175-182.

(46) P. Sam Johnson and C. Ganesa Moorthy, *Composition of Operators with Closed Range*, The Journal of Analysis, 14(2006), 79-80.

(47) C. Ganesa Moorthy and P. Sam Johnson, *Composition of Closed Range Operators*, The Journal of Analysis, 12(2004), 165-169.

Publications in Conference Proceedings :

(1) Ameya Vyas and P. Sam Johnson, *Anomaly Detection in Electric Powertrain System Software Behaviour*, Published in: 14th International Conference on Computing Communication and Networking Technologies (ICCCNT), 06-08 July 2023, Delhi (Publisher: IEEE).

(2) Vinoth A and P. Sam Johnson, *Factorization of EP Operators in Krein Spaces*, Mathematical Analysis and Computing, Springer Proceedings in Mathematics and Statistics, 344, pp. 359-364, 2021. (Proceedings of the International Conference on Mathematical Analysis and Computing held at SSN College of Engineering, Chennai on December 23-24, 2019).

(3) C. Ganesa Moorthy and P. Sam Johnson, *Closed Range - Multiplication Operators*, Mathematical Analysis and Applications, Narosa Publishing House, pp 133-138, 2004 (Proceedings of the International Conference on Analysis and Discrete Structures held at Indian Institute of Technology, Kharagpur on December 22-24, 2002).

Projects Completed : 03

Funding Agency – SERB, DST	:	Topological Structures for Semiclosed Operators on Hilbert Spaces (SR/FTP/ MS-050/2011) Duration : 17.05.2014 to 16.05.2017
Funding Agency – NBHM, DAE	:	A Study on Moore-Penrose Inverses in Krein Spaces (NBHM/R.P.45/2012/Fresh/308) Duration : 15.08.2013 to 14.08.2016
Funding Agency – NITK	:	A Study on Closed Range Operators (RGO/O.M/SEED GRANT/106/2009) Duration : 26.01.2009 to 25.01.2011

Projects On-going : 03

Funding Agency – SERB, DST	:	Hyers-Ulam Stability of Unbounded Operators and C_0-Semigroup Operators (MTR/2023/000471) Duration : Three Years Starting From 21.12.2023
Funding Agency – NBHM, DAE	:	Hyers-Ulam Stability of Frames and Operators in Hilbert Spaces (NBHM/2023/R&D-II/5947) Duration : Three Years Starting From 04.05.2023

Funding Agency – SERB, DST : TARE Fellowship Grant, SERB, DST (AR/2022/000219)
A Study of Frames for Operators in Hilbert Spaces
Duration : Three Years Starting From 18.10.2022

PhD Guidance (Awarded : 07 ; Guiding : 04)

(1) Sachin Manjunath Naik (2025) : Complementable Operators and Their Schur Complements in Hilbert Spaces (Examiner : Prof. Om Prakash, IIT Patna)
(2) Rashid A (2024) : A Study on Certain Positivity Classes of Operators in Hilbert Spaces (Examiner : Prof. Om Prakash, IIT Patna)
(3) Athira Satheesh (2024) : Reverse order law for Moore-Penrose inverse in Hilbert and Indefinte Inner Product Spaces
(Examiner : Prof. K.C. Sivakumar, IIT Madras)
(4) Mahesh Krishna K. (2022) : Metric, Schauder and Operator-Valued Frames
(Examiner : Dr. Sivananthan Sampath, IIT Delhi)
(5) Vinoth A. (2020) : A Study on EP and Hypo-EP Operators
(Examiner : Prof. K.C. Sivakumar, IIT Madras)
(6) G. Ramu (2017) : Frames for Operators in Hilbert and Banach Spaces
(Examiner : Prof. P. Veeramani, IIT Madras)
(7) S. Balaji (2014) : A Study on Semiclosed Subspaces and Semiclosed Operators in Hilbert Spaces
(Examiner : Prof. P. Shunmugaraj, IIT Kanpur)

Mentorship

(1) Mentoring and Collaborating with Dr. Harikrishnan PK (Associate Professor Senior, Department of Mathematics, Manipal Institute of Technology, Manipal) in the project titled "A study of frames for operators in Hilbert spaces" for a period of three years starting from 10.10.2022. This project is sponsored by Science and Engineering Research Board (SERB) for funding under Teachers Associateship for Research Excellence (TARE).
(2) Mentored Dr. K. Kamaraj, (Department of Mathematics, University College of Engineering Arni) from 01.11.2017 to 31.12.2017. The short-term training programme was sponsored by Tamil Nadu State Council for Science and Technology (TNSCST) under Young Scientist Fellowship Scheme for the year 2016-2017.
(3) Mentored Mrs. Vajreshwari from 01.06.2022 to 30.06.2022 and mentorship grant was sponsored by Department of Science and Technology (DST) under the scheme, Innovation in Science Pursuit for Inspired Research (INSPIRE) for the year 2022.

Travel Grant Received

(1) Received travel grant to attend International Congress of Mathematicians (ICM) 2014, Seoul, Korea under International Travel Support Scheme supported by Department of Science and Technology, Government of India.

Organization of Conferences and Other Academic Events :

(1) Organized a national-level seminar on the occasion of "National Mathematics Day" on 22 December 2024 (Commemorating the 138th birth anniversary of one of the greatest Indian mathematicians, Srinivasa Ramanujan).
(2) Organized a national-level seminar on the occasion of "National Mathematics Day" on 22 December 2023 (Commemorating the 137th birth anniversary of one of the greatest Indian mathematicians, Srinivasa Ramanujan).
(3) Organized a national-level seminar on the occasion of "National Mathematics Day" on 22 December 2022 (Commemorating the 136th birth anniversary of one of the greatest Indian mathematicians, Srinivasa Ramanujan).
(4) Organized NBHM Sponsored National Level Workshop on "Topological Dynamics" during 10-12, December 2015.
(5) Organized NBHM Sponsored National Level Workshop on "Functional Analysis and Operator Algebras" during 02-07, June 2014.

(6) Organized NBHM Sponsored National Level Workshop on "Spectral Analysis and Applications" during 14-16, February 2013.

Reviewing Duties :

(1) Reviewer, Linear and Multilinear Algebra
(2) Reviewer, Operators and Matrices
(3) Reviewer, Indian Journal of Pure and Applied Mathematics
(4) Reviewer, Mathematical Reviews, American Mathematical Society
(5) Reviewer, Topological Algebra and its Applications
(6) Reviewer, Communications in Advanced Mathematical Sciences
(7) Reviewer, Journal of Discrete Mathematical Sciences & Cryptography
(8) Reviewer, Advances in the Theory of Nonlinear Analysis and its Application
(9) Reviewer, International Journal of Applied and Computational Mathematics
(10) Reviewer, Palestine Journal of Mathematics
(11) Reviewer, Methods of Functional Analysis and Topology
(12) Reviewer, Nonlinear Functional Analysis and Applications
(13) Reviewer, Thai Journal of Mathematics

Membership of Professional Bodies :

(1) Indian Mathematical Society, India - Life Member
(2) Ramanujan Mathematical Society, India - Life Member
(3) Malaysian Mathematical Sciences Society, Malaysia - Life Member
(4) Forum for Interdisciplinary Mathematics – Life Member
(5) Forum D'Analystes - Life Member
(6) The Association of Mathematics Teachers of India - Life Member

Board of Studies (BOS) Member :

(1) Academic Years (2024-2027), BOS member for PG Mathematics, St. Philomena College (Autonomous), Puttur.
(2) Academic Years (2024-2027), BOS member for Department of Mathematics of Alva's Institute of Engineering and Technology (Autonomous), Moodabidri.
(3) Academic Year (2022-2023), BOS member for the Engineering Mathematics courses offered to various BTech programmes in MIT University, Manipal.
(4) Academic Years (2022-2025), BOS member for NCC in Sri Dharmasthala Manjunatheshwara College, Ujire.
(5) Academic Year (2021-2022), BOS member for PG Mathematics, St. Aloysius College (Autonomous), Mangaluru.

Papers Presented in Conferences :

(1) *Frames for Operators in Hilbert Spaces and Applications*, Barcelona Analysis Conference, Satellite ECM 2024, Centre de Recerca Matemàtica, Barcelona, Spain, 03-07 June, 2024.
(2) *Closed EP and Hypo-EP Operators on Hilbert Spaces*, 36th Annual Conference of Ramanujan Mathematical Society, Amrita Vishwa Vidyapeetham, Coimbatore, 05-07 August, 2021.
(3) *Hypo-EP Operators*, International Conference on Linear Algebra and its Applications, MIT University, Manipal, 11-15 December, 2017.
(4) *Class of Bounded Operators Associated with an Atomic System*, International Congress of Mathematicians, Seoul, 13-21 August, 2014.
(5) *Hyers-Ulam Stability of Linear Operators in Frechet Spaces*, The Second International Conference on Mathematics and Information Science, Sohag University, Egypt, 10-13 September, 2011.
(6) *Convergence of Sequence of Operators with Closed Range*, The Second International Conference on Mathematical Sciences, Universiti Kebangsaan Malaysia, Nov 30 - 03 Dec, 2010.
(7) *On Semiclosed Subspaces of Hilbert Spaces*, International Congress of Mathematicians, Hyderabad, 19-27 August, 2010.

(8) *Multiplication Operators with Closed Range in Operator Algebras*, International Symposium on Geometric Function Theory and its Applications, Universiti Kebangsaan Malaysia, 10-13 November, 2008.

(9) *Hyers-Ulam Stability of Linear Operators in Hilbert Spaces*, International Conference on Functional Analysis and its Applications, Scott Christian College, Nagercoil, Nov 28 - Dec 02, 2007.

(10) *Two Operators with Closed Range*, The 19th International Conference of the Jangjeon Mathematical Society, Bangalore University, Bangalore, 22-24 February, 2007.

(11) *Composition of Closed Range Operators*, International Conference on Topics in Functional and Numerical Analysis, IIT Bombay, 07-09 December 2005.

(12) *Characterizations of Closed Range Operators*, Conference on Functional Analysis and its Applications, Sardar Patel University, Vallabh Vidyanagar, 14-16 March 2005.

(13) *Located Subsets of a Hilbert Space*, The Twelfth Ramanujan Symposium on Recent Trends in Analysis, Ramanujan Institute for Advanced Study in Mathematics, Chennai, 02-04 March 2005.

(14) *Convergence of Closed Range Operators*, National Conference on the Emerging Trends in Pure and Applied Mathematics, St. Xavier's College, Palayamkottai, 27-29 January 2005.

(15) *On Closed Operators with Closed Range*, National Seminar on Algebra, Analysis and Discrete Mathematics, University of Kerala, Thiruvananthapuram, 12-14 January 2005.

(16) *Linear Operators with Closed Range*, The Eleventh Ramanujan Symposium on Recent Trends in Operator Theory and Banach Algebras, Ramanujan Institute for Advanced Study in Mathematics, Chennai, 03-05 March 2004.

(17) *Almost Open Mappings*, UGC Sponsored State Level Seminar on "Mathematics – An Elixir for all Sciences", Seethalakshmi Ramaswami College, 10-11 December 2003.

(18) *Maximal Closed Range Operators*, UGC Sponsored National Seminar on Recent Advances in Pure and Applied Mathematics, Kandaswami Kandar's College, Velur, 23 August, 2003.

(19) *Closed Range - Multiplication Operators*, International Conference on Analysis and Discrete Structures, IIT Kharagpur, 22-24 December, 2002.

Workshops / ATM Schools Attended :

(1) Three Day Workshop on "Inverse Problems and Applications", National Institute of Technology Karnataka (NITK), Surathkal, 06-08 March 2023.

(2) 24th ISem on "C^*-algebras and dynamics", 06-12 June 2021. The Internet Seminar (ISem) has been organized every year since 1997 by several working groups from Austria, Germany, Hungary, Italy and the Netherlands. (Project Coordinators : Markus Haase and Sascha Trostorff).

(3) Workshop on Inverse Problems and Applications, National Institute of Technology Karnataka (NITK), Surathkal, 09-13 July, 2018.

(4) Instructional School for Teachers (IST) on Complex Analysis, Bhaskaracharya Pratishthana, Pune, 16-28 November, 2015.

(5) Instructional School for Teachers (IST) on Functional Analysis, IIT Kanpur, 18-30 May, 2015.

(6) National Workshop on Linux and Free Open Source Software, NITK, Surathkal, 09-10 May, 2015.

(7) International Workshop on Combinatorical Matrix Theory and Generalized Inverses of Matrices, Manipal University, Manipal, 02-07 January, 2012.

(8) National Workshop on Advanced LaTeX and PSTricks, Bhaskaracharya Pratishthana, Pune, 22-26 November, 2010.

(9) Summer School on Functional Analysis, Institute of Mathematical Sciences, Chennai, Jun 28 - Jul 16, 2010.

(10) Advanced Training School in Mathematics for Lecturers on Operator Theory, Institute of Mathematics and Applications, Bhubaneswar, 07-12 December, 2009.

(11) Workshop on Geometry of Banach Spaces and Applications, Indian Statistical Institute, Bengaluru, 01-13 June, 2009.

(12) An Advanced Training in Mathematics in Functional Analysis, Indian Statistical Institute, Bengaluru, 02-13 June, 2008.

(13) Advanced Training School in Mathematics for Lecturers on Real Analysis, Alagappa University, Karaikudi, 04-16 June, 2007.

(14) Advanced Training School in Mathematics for Lecturers on Complex Analysis, Bhaskaracharya Pratishthana, Pune, 14-26 May, 2007.

(15) National Workshop on MATLAB and its Applications, SSN College of Engineering, Chennai, 07-11 May, 2007.

(16) Workshop on Recent Trends in Applied Mathematics, Jerusalem College of Engineering, Chennai, 03 November, 2006.

(17) The Regional Workshop on Analysis, Theivanai Ammal College For Women, Villupuram, 30-31 January, 2004.

(18) One-day Orientation Programme on LaTeX, Saraswathi Narayanan College, Madurai, 23 January, 2004.

Talks Delivered :

(1) *Reduced Solutions of Douglas Equations*, 2nd Mathematics Research Symposium (MaRS 2025), MIT University, Manipal, 07-08 February, 2025.

(2) *Moore-Penrose Inverses of Unbounded Closable Operators*, National Conference on Pure Mathematics and its Applications, Women's Christian College, Chennai, 30 January 2025.

(3) *Hyers-Ulam Stability of Operators in Hilbert Spaces*, 12th National Conference on Mathematical Techniques and Applications, SRM Institute of Science and Technology, Chennai, 09-10 January, 2025.

(4) *Frames in Hilbert Spaces*, Women in 'Mathematics Day', MIT University, Manipal, 13-14 May, 2024.

(5) *Exploration of Mathematics in Emerging Fields*, Five Days International Level Virtual Faculty Development Programme, PPG College of Arts and Science, Coimbatore, 23 February 2024.

(6) *Various Generalizations of Frames and Applications*, 4th International Conference on Mathematical Techniques and Applications, SRM Institute of Science and Technology, Chennai, 22-24 March, 2023.

(7) *Generalized Versions of Douglas' Factorization Theorem*, International Conference on Algebra, Analysis and Applications, MIT University, Manipal, 06-08 January, 2023.

(8) *Integral Calculus and Applications (Single Integral to Surface Integral)*, One Day National Level Workshop on Perceiving Calculus Via Digital Mode, VIT, Vellore, 29 September, 2022.

(9) *Projection Methods for Solving Linear Systems of Equations*, Expert Lecture, Poornaprajna College, Udupi, 18 March, 2022.

(10) *Four Fundamental Theorems of Functional Analysis*, Resource Person for Refresher Course in Mathematics and Statistics, Bharathiyar University, Coimbatore, 13 September, 2021.

(11) *Applications of Linear Algebra in Satellite Motion*, Vignan's Foundation for Science, Technology and Research, Guntur, 16 June, 2021.

(12) *Numerical Range of Operators Acting on Hilbert Spaces*, Expert Lecture, H.H. The Rajah's College, Pudukkottai, 29 May 2021.

(13) *Zabreiko's Lemma and Four Fundamental Theorems of Functional Analysis*, National Level Mathematics Webinar Series, Mangalore University, Mangaluru, 09-12 September, 2020.

(14) *Compactness in Metric Spaces*, Expert Lecture, P.K.R. Arts College for Women, Gobi, 22 July, 2020.

(15) *Complete Metric Spaces*, National Webinar on Mathematical Analysis and Topology, G. Venkatasamy Naidu College, Kovilpatti, 20 June, 2020.

(16) *Uniform Continuity*, Workshop on Mathematical Analysis, Loyola College, Chennai, 08-13 June, 2020.

(17) *Applications of Linear Algebra in Electronics and Communication Engineering*, Mangalore Institute of Technology and Engineering, Moodabidri, 02 June, 2021.

(18) *Moore-Penrose Inverse in Solving Least-Squares Problem for Linear System*, Idhaya College for Women, Sarugani, 09 June, 2020.

(19) *Bounded Operators on Banach Spaces*, Expert Lecture, St. Joseph's College, Tricuchirappalli, 15 November, 2019.

(20) *Douglas' Theorem*, National Seminar on Recent Developments in Mathematics, St. Xavier's College, Palayamkottai, 11 March, 2019.

(21) *Applications of Integration in Engineering Field*, Teachers' Knowledge Enrichment Programme on "Advanced Mathematical Pedagogy", Coimbatore Institute of Technology, Coimbatore, 29 October to 02 November, 2018.

(22) *Applications of Linear Algebra in Recurrence Relations*, National Level Seminar on Applications of Recurrence Relations and Mathematical Modelling, Nachiappa Swamigal Arts and Science College, Karaikudi, 04 October, 2018.

(23) *Absolutely Norm Attaining Operators*, UGC Sponsored National Conference on Recent Advances in Pure and Applied Mathematics, Arul Anandar College, Karumathur, 01 March, 2018.

(24) *Application of Calculus in Engineering Problems*, Expert Lecture, VIT University, Vellore, 04 November 2017.

(25) *Operators for which A and $A^\dagger$ commute*, Colloquium on Research Opportunities in Functional Analysis, College of Engineering Trikaripur, Kasargod, 25 February, 2017.

(26) *Vector Integration*, Expert Lecture to First Year BTech Students, VIT University, Vellore, 05 November 2016.

(27) *Compact Operators on Hilbert Space*, National Level Seminar on Mathematical Techniques in Different Fields, Marudhar Kesari Jain College for Women, Vaniyambadi, 30 September, 2016.

(28) *Generalized Versions of Douglas' Factorization Theorem*, National Seminar on Functional Analysis, Government College, Kasaragod, 16-17 December, 2015.

(29) *Pairs of Subspaces in Generic Position*, UGC Sponsored National Seminar on New Trends in Analysis, Nehur Arts and Science College, Kanhangad, 26 September, 2014.

(30) *Approximation Numbers of Operators on Normed Spaces*, UGC Sponsored National Conference on Recent Trends in Pure and Applied Mathematics, H.H. The Rajah's College, Pudukkottai, 24 February 2012.

(31) *Topology for Semiclosed Operators on Hilbert Spaces*, UGC Sponsored National Conference on Emerging Trends in Applications of Mathematics to Science and Technology, Auxilium College, Vellore, 08-09 December, 2011.

(32) *Frame Operators of K-frames*, UGC Sponsored National Conference on Operator Theory and Applications, Payyanur College, Payyanur, 01-02 February, 2011.

(33) *On Linear Operators with Closed Range*, NBHM sponsored National Conference on Operator Theory and Applications, Payyanur College, Payyanur, 01-02 October, 2009.

Conferences / Symposiums Attended :

(1) International Conference on Linear Algebra and its Applications, MIT University, Manipal, 15-17 December, 2021.

(2) International Conference cum Workshop on Analysis and its Applications, IIT Madras, Chennai, 18-22 June, 2018.

(3) International Conference on Linear Algebra and its Applications, MIT University, Manipal, 11-15 December, 2017.

(4) International Conference on Linear Algebra and its Applications, Manipal University, Manipal, 18-20 December, 2014.

(5) Recent Advances in Operators Algebras, Indian Statistical Institute, Bangalore, 31 December to 11 January, 2013.

(6) The Matices and Operators Conference, Indian Institute of Science, Bengaluru, 27-30 December, 2012.

(7) Ramanujan Memorial Symposium in Mathematics and its Applications, IIT Hyderabad, 22 December, 2012.

(8) International Conference on Combinatorical Matrix Theory and Generalized Inverses of Matrices, Manipal University, Manipal, 10-11 January, 2012.

(9) ICM Satellite Conference on Functional Analysis and Operator Theory, Indian Statistical Institute, 08-11 August, 2010.

(10) International Symposium on Harmonic Analysis, Wavelets and Partial Differential Equations, IIT Madras, 08 January, 2007.
(11) National Symposium on Mathematical Methods and Applications, IIT Madras, 22 December 2006.
(12) Workshop on Life Skills, SSN College of Engineering, Chennai, 20-22 November, 2006.
(13) National Seminar on Technology and Innovation in Mathematics Education, IIT Bombay, 04-06 December, 2005.
(14) ISTE Sponsored Induction Training Programme, SRM University, Chennai, 23-24 June 2005.
(15) Algebraic and Analytic Methods, Alagappa University, Karaikudi, 19-20 March 2005.
(16) National Conference on Computer Algebra Systems, UGC Sponsored National Conference on Computer Algebra Systems, Erode Arts College, Erode, 30-31 December 2004.

Short Term Training Programmes / GIAN Courses Attended :

(1) GIAN Course on Theory and Application of Wavelets and Framelets, IIT Indore, Dec 28 - Jan 04, 2018.
(2) GIAN Course on Matrices with Positive Principal Minors : Theory and Applications, IIT Madras, 18-22 December, 2017.
(3) NBHM Sponsored Advanced Training Camp in Mathematics, SSN College of Engineering, Chennai, 17-31 December, 2010.
(4) QIP - Short Term Training Programme on Harmonic Analysis and Partial Differential Equations, IIT Madras, 01-12 January, 2007.
(5) Recent Trends and the Applications of Probability, Random Process and Statistical Techniques, Mepco Schlenk Engineering College, Sivakasi, 01-05 November 2004.

Research Interaction :

(1) Visited University of Central Florida to have a research interaction with Prof. Ram N. Mohapatra from 14th to 27th June, 2023.
(2) Visited Vanderbilt University to have a research interaction with Prof. Jesse Peterson from 13th June to 9th July, 2014.

Advisory Committee Member / Session Chair :

(1) Paper Presentation Session Chair, The Gandhigram Rural Institute, Gandhigram, 02-04 March, 2022.
(2) Paper Presentation Session Chair, 6th Biennial International Group Theory Conference, VIT University, Vellore, 04-06 March, 2021.
(3) Advisory Committee Member, National Conference on Mathematical Analysis and Computing, Sree Sevugan Annamalai College, Devakottai, 24 May 2021.
(4) Advisory Committee Member, International Conference on Present Scenario of Mathematical Sciences, Karnatak University's Karnatak Arts College, Dharwad, 12-13 September, 2020.

Administrative Responsibilities :

(1) Head - Department of MACS (November 2023 to Till Date)
(2) Associate Dean - Faculty Welfare (July 2021 to November 2023)
(3) Serving as Associate NCC Officer (ANO) at NITK in the Rank of "Captain" (December 2012 to Till Date)
(4) Faculty In-charge (Security), 2016-2018
(5) Visiting Faculty to IIIT Dharwad, 2015
(6) Member of Institute Grievance Redressal Committee, 2015-2020
(7) Warden of NITK 8th Block Hostel, 2014-2016
(8) Visits Abroad : United States of America (2023, 2014), Canada (2013), Republic of Korea (2014), United Kingdom (2017), Malaysia (2010, 2008), Egypt (2011)

Personal Details :

Date of Birth	:	30th November 1978
Languages Known	:	Tamil, English, Kannada

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