Curriculum Vitae

Dr. P. Sam Johnson
Associate Professor
Department of Mathematical and Computational Sciences
National Institute of Technology Karnataka, Surathkal
Mangaluru 575025, India

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Personal Webpage : https://sam.nitk.ac.in/
Contact Number : +91 94488 45980

Research Interests	:	Functional Analysis and Operator Theory

Academic Qualification :

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

Work Experience :

Jun 2005 - Jul 2006	:	Lecturer SRM University, Chennai
Aug 2006 - Dec 2008	:	Lecturer SSN College of Engineering, Chennai
Jan 2008 - May 2018	:	Assistant Professor National Institute of Technology Karnataka, Surathkal
May 2018 - Till Date	:	Associate Professor National Institute of Technology Karnataka, Surathkal

Professional Recognition / Fellowship 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) P. Sam Johnson, *Closed EP and Hypo-EP Operators on Hilbert Spaces*, The Journal of Analysis (now available online, to be published in Vol. 30 (2), June 2022).

(2) K. Mahesh Krishna and P. Sam Johnson, *Dilations of Linear Maps on Vector Spaces*, Operators and Matrices (to be published in Vol. 16 (2) June 2022).

(3) K. Mahesh Krishna and P. Sam Johnson, *Commutators Close to the Identity in Unital C*-Algebras*, Proceedings of the Indian Academy of Sciences : Mathematical Sciences (now available online, to be published in Vol. 132 (1), June 2022).

(4) K. Kamaraj, P. Sam Johnson and Athira Satheesh K, *Reverse Order Law for Generalized Inverses with Indefinite Hermitian Weights*, Filomat (accepted for publication).

(5) K. Mahesh Krishna and P. Sam Johnson, *The Noncommutative ℓ_1-ℓ_2 Inequality for Hilbert C*-Modules and the Exact Constant*, Nonlinear Functional Analysis and Applications (to be published in Vol. 27 (2) May 2022).

(6) K. Kamaraj, P. Sam Johnson and Sachin Manjunath Naik, *Generalized Principal Pivot Transform and its Inheritance Properties*, The Journal of Analysis (now available online, to be published in Vol. 30 (2), June 2022).

(7) K. Mahesh Krishna and P. Sam Johnson, *Expansion of Weak Reconstruction Sequences to Approximate Schauder Frames for Banach Spaces*, Asian-European Journal of Mathematics (to be published in Vol.15 (3) March 2022).

(8) K. Mahesh Krishna and P. Sam Johnson, *Dilation Theorem for p-Approximate Schauder Frames for Separable Banach Spaces*, Palestine Journal of Mathematics (to be published in Vol.11 (2) July 2022).

(9) 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.

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

(11) 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.

(12) 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.

(13) 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.

(14) 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.

(15) 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.

(16) 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.

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

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

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

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

(21) 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.

(22) G. Ramu and P. Sam Johnson, *Frames for Operators in Banach Spaces*, Acta Mathematica Vietnamica, 42 (2017), 665-673.
(23) Vinoth A and P. Sam Johnson, *On Sum and Restriction of Hypo-EP Operators*, Funct. Anal. Approx. Comput. 9 (1) (2017), 37-41.
(24) 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.
(25) 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.
(26) P. Sam Johnson, *Multiplication Operators with Closed Range in Operator Algebras*, Journal of Analysis and Number Theory, Vol. 1, No.1, 1-5, 2013.
(27) 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.
(28) 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).
(29) 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.
(30) P. Sam Johnson and C. Ganesa Moorthy, *Composition of Operators with Closed Range*, The Journal of Analysis, 14(2006), 79-80.
(31) 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) 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).
(2) 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 – SERC, 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

PhD Guidance (Awarded : 04 ;   Guiding : 05)

(1) Mahesh Krishna K. (2022) : Metric, Schauder and Operator-Valued Frames
(Examiner : Dr. Sivananthan Sampath, IIT Delhi)
(2) Vinoth A. (2020) : A Study on EP and Hypo-EP Operators
(Examiner : Prof. K.C. Sivakumar, IIT Madras)
(3) G. Ramu (2017) : Frames for Operators in Hilbert and Banach Spaces
(Examiner : Prof. P. Veeramani, IIT Madras)
(4) S. Balaji (2014) : A Study on Semiclosed Subspaces and Semiclosed Operators in Hilbert Spaces
(Examiner : Prof. P. Shunmugaraj, IIT Kanpur)

Organization of Conferences and Other Academic Events :

(1) Organized NBHM Sponsored National Level Workshop on "Topological Dynamics" during 10-12, December 2015.
(2) Organized NBHM Sponsored National Level Workshop on "Functional Analysis and Operator Algebras" during 02-07, June 2014.
(3) Organized NBHM Sponsored National Level Workshop on "Spectral Analysis and Applications" during 14-16, February 2013.

Reviewing Duties :

(1) Reviewer, Mathematical Reviews, American Mathematical Society
(2) Reviewer, Operators and Matrices
(3) Reviewer, Communications in Advanced Mathematical Sciences
(4) Reviewer, Journal of Discrete Mathematical Sciences & Cryptography
(5) Reviewer, Advances in the Theory of Nonlinear Analysis and its Application
(6) Reviewer, Palestine Journal of Mathematics
(7) Reviewer, Methods of Functional Analysis and Topology
(8) Reviewer, Nonlinear Functional Analysis and Applications
(9) 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 Year (2022-2023), BOS member for the Engineering Mathematics courses offered to various BTech programmes in MIT University, Manipal.
(2) Academic Year (2021-2022), BOS member for PG Mathematics, St. Aloysius College (Autonomous), Mangaluru.

Papers Presented in Conferences :

(1) *Closed EP and Hypo-EP Operators on Hilbert Spaces*, 36th Annual Conference of Ramanujan Mathematical Society, Amrita Vishwa Vidyapeetham, Coimbatore, 05-07 August, 2021.
(2) *Hypo-EP Operators*, International Conference on Linear Algebra and its Applications, MIT University, Manipal, 11-15 December, 2017.
(3) *Class of Bounded Operators Associated with an Atomic System*, International Congress of Mathematicians, Seoul, 13-21 August, 2014.
(4) *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.
(5) *Convergence of Sequence of Operators with Closed Range*, The Second International Conference on Mathematical Sciences, Universiti Kebangsaan Malaysia, Nov 30 - 03 Dec, 2010.
(6) *On Semiclosed Subspaces of Hilbert Spaces*, International Congress of Mathematicians, Hyderabad, 19-27 August, 2010.
(7) *Multiplication Operators with Closed Range in Operator Algebras*, International Symposium on Geometric Function Theory and its Applications, Universiti Kebangsaan Malaysia, 10-13 November, 2008.
(8) *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.
(9) *Two Operators with Closed Range*, The 19th International Conference of the Jangjeon Mathematical Soceity, 22-24 February, 2007.
(10) *Composition of Closed Range Operators*, International Conference on Topics in Functional and Numerical Analysis, IIT Bombay, 07-09 December 2005.

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

(12) *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.

(13) *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.

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

(15) *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.

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

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

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

Workshops / ATM Schools Attended :

(1) 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).

(2) Workshop on Inverse Problems and Applications, NITK, Surathkal, 09-13 July, 2018.

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

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

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

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

(7) NBHM Sponsored Advanced Training Camp in Mathematics, SSN College of Engineering, Chennai, 17-31 December, 2010.

(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 Mathemtics 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 Mathemtics in Functional Analysis, Indian Statistical Institute, Bengaluru, 02-13 June, 2008.

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

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

(15) National Workshop on MATLAB and its Applicatins, 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.

Talks Delivered :

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

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

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

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

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

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

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

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

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

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

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

(12) *Douglas' Theorem*, National Seminar on Recent Developments in Mathematics, Palayamkottai, 11 March, 2019.

(13) *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.

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

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

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

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

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

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

(20) *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.

(21) *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.

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

(23) *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, Manipal University, Manipal, 18-20 December, 2014.

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

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

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

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

(8) International Symposium on Harmonic Analysis, Wavelets and Partial Differential Equations, IIT Madras, 08 January, 2007.

(9) National Symposium on Mathematical Methods and Applications, IIT Madras, 22 December 2006.

(10) National Seminar on Technology and Innovation in Mathematics Education, IIT Bombay, 04-06 December, 2005.

(11) Algebraic and Analytic Methods, Alagappa University, Karaikudi, 19-20 March 2005.

(12) 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) QIP - Short Term Training Programme on Harmonic Analysis and Partial Differential Equations, IIT Madras, 01-12 January, 2007.

(4) Recent Trends and the Applications of Probability, Random Process and Statistical Techniques, Mepco Schlenk Engineering College, Sivakasi, 01-05 November 2004.

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) Associate Dean - Faculty Welfare (July 2021 to Till Date)

(2) Serving as Associate NCC Officer (ANO) at NITK in the Rank of "Captain" (December 2012 to Till Date)

(3) Faculty In-charge (Security), 2016-2018

(4) Visiting Faculty to IIIT Dharwad, 2015

(5) Member of Institute Grievance Redressal Committee, 2015-2020

(6) Warden of NITK 8th Block Hostel, 2014-2016

(7) Visits Abroad : United States of America (2014), Canada (2013), Republic of Korea (2014), United Kingdom (2017), Malaysia (2008, 2010), Egypt (2011)

Personal Details :

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

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