

**Dr. K. KAMARAJ**  
**Assistant Professor**  
**Department of Mathematics**  
**UCE- BITCampus**  
Trichirappalli- 620024.  
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➤ **Research Area:**

Matrix Theory / Linear Algebra / Functional Analysis

➤ **Educational Qualifications:**

Qualification	Department	College / Institute	Year
Ph.D.,	Mathematics	Anna University	2002 - 2008
M.Sc.,	Mathematics	CEG, Anna University	1999 - 2001
B.Sc.,	Mathematics	VHNSN College of Arts and Science, Virudhunagar	1995 - 1998

➤ **Experience:**

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
University College of Engineering, BIT Campus, Trichirappalli	Assistant Professor (Sr. Grade)	11-08-2023	Till date	01 Month
University College of Engineering Arni	Assistant Professor (Sr. Grade)	07-09-2013	10-08-2023	09 Years 11 Months
University College of Engineering Arni	Assistant Professor	07-09-2009	06-09-2013	04 Years
SSN College of Engineering, Chennai	Lecturer	27-12-2006	05-09-2009	2 Years 08 Months
Tagore Engineering College, Chennai	Lecturer	20-07-2005	22-12-2006	1Year 05 Months
Total				18 Years 01 Month

➤ **Awards:**

- Young Scientist Fellowship for the year 2016-17 awarded by Tamilnadu State Council for Science and Technology (TNSCST), Government of Tamilnadu.

➤ **Additional / Academic Responsibilities at University:**

NIL

➤ **Professional Activities:**

NIL

➤ **Membership of Scientific and Professional Societies:**

- a. Life Member in Indian Mathematical Society.

➤ **Fellowships and Grants:**

NIL

➤ **Research Guidance (M.S/Ph.D.):**

Sl. No	Name of the scholar	Tentative Title of the thesis	Year of registration	Status
1.	Mr. M. Muthukumar	Rank Equalities of Block Matrices in an Indefinite Inner Product Space	2019	<b>Ongoing</b>
2.	Ms. A. Karphagam	Matrix Partial Orders and its Applications	2020	<b>Ongoing</b>

➤ **PhD Research Projects (Completed):**

➤ **PhD Research Projects (Ongoing):**

➤ **Sponsored Research Activities:**

➤ **Consultancy Activities:**

➤ **List of Seminar / Short Term Course / FDP/ Workshop attended: (Within India)**

- a. Workshop on Several Complex Variables and Complex Dynamics (2010), sponsored by National Board of Higher Mathematics, organized by Department of Mathematics at Indian Institute of Science, Bangalore during 01-03-2010 to 13-03-2010. (2 weeks)

- b.** “Advanced Training Camp in Mathematics” (2010), sponsored by National Board of Higher Mathematics, organized by Department of Mathematics at SSN College of Engineering Chennai during 17-12-2010 to 31-12-2010. (2 weeks).
- c.** FDP Programme (2010), on “Probability and Queuing Theory”, organized by Department of Mathematics at College of Engineering Guindy, Anna University Chennai during 29-11-2010 to 07-12-2010. (1 week)
- d.** International Workshop on Combinatorial Matrix Theory and Generalized Inverses of Matrices organized by Department of Statistics, Manipal University, Manipal, Karnataka during 02-01-2012 to 07-01-2012. (1 week)
- e.** Instructional School for Teachers on “Linear Algebra” organized by Department of Mathematics at SGGSIET & T, Nanded, Maharashtra during 23-11-2015 to 05-12-2015. (13 Days)
- f.** Advanced Instructional School on “Matrix Analysis” organized by Department of Mathematics at Shiv Nadar University, Noida during 02-05-2016 to 21-05-2016. (20 Days)
- g.** Mini Workshop on “Linear Complementarity & Generalizations” organized by ISI Chennai Centre during 24-09-2016 to 25-09-2016. (02 Days)
- h.** Collaborative Research Training and Learned Specific Techniques at the Department of Mathematical and Computational Sciences, National Institute of Karnataka, Surathkal, Mangalore during 01-11-2017 to 31-12-2017 (02 Months).
- i.** Optimization Techniques in Engineering, NITTTR Changigarh, during 27-05-2019 to 31-05-2019. (1 week)

➤ **International Conferences Participated:**

- a.** International Conference on Combinatorial Matrix Theory and Generalized Inverses of Matrices organized by Department of Statistics, Manipal University, Manipal, Karnataka during 10-01-2012 to 11-01-2012. (02 Days)
- b.** International Conference on “Analysis and its Applications” organized by Department of Mathematics, IIT Madras during 18-06-2018 to 22-06-18. (05 Days)

➤ **Publications :**

**a. Books:**

NIL

**b. International Journals:**

1. **Kamaraj K.** Ramanathan K. and Sivakumar K.C., 'Indefinite product of matrices and applications to indefinite inner product spaces' Journal of Analysis, Vol.12, pp.135-142, 2004.
2. **Kamaraj K.** and Sivakumar K.C., 'Spectral theorem for normal matrices in an indefinite inner product space', Journal of Analysis, Vol.12, pp.143-152, 2004.
3. **Kamaraj K.** and Sivakumar K.C., 'Moore-Penrose inverse in an indefinite inner product space', Journal of Applied Mathematics and Computing, Vol.40, pp.1233-1240, 2005.
4. Sivakumar K.C. and **Kamaraj K.**, 'A characterization of \*-isomorphism in an indefinite inner product space', Journal of Mathematical Analysis and Applications, Vol. 329, pp.1139-1144, 2007.
5. **Kamaraj K.** Kurmayya T. and Sivakumar K.C., 'On characterization of nonnegative Moore-Penrose inverses of Hilbert space operators', Journal of Analysis, Vol. 16, pp. 11-18, 2008.
6. **Kamaraj K.** Ramanathan K. and Sivakumar K.C., 'Characterization of \*-Isomorphisms in an Indefinite Inner Product Space using Indefinite Matrix Product', Int Jr. of Mathematical Sciences & Applications, Vol.3, pp. 181-193, 2013.
7. Sathyaseelan B., Killivalavan G. Rameshkumar G. Senthilkumar G., and **Kamaraj K.**, 'Block copolymer templating syntheses of mesoporous ZrO<sub>2</sub> with large ordering lengths and semi-crystalline framework' AIP Conference Proceedings, Springer, 2013.
8. Venkatapay R., Yathavan S., Sridharan V., Krishnan R., **Kamaraj K.**, Durirajan A., Gokulraj S., and Rameshkumar G., "Influence of process parameters on the optimisation of crystalline phase, size and strain of multiferroic Bismuth Iron Tri Oxide (BiFeO<sub>3</sub>) nanoceramics: A MCDM based TOPSIS approach", Ceramic International, Vol. 46, pp. 1457-1471, 2020.
9. Satheesh K Athira., Sam Johnson P., and **Kamaraj K.**, 'Estimates of Norms on KreinSpaces', Vol.17, Article no 18, 2020.
10. Sam Johnson P., Vinoth A., and **Kamaraj K.**, 'Fuglede-Putnam type commutativity theorems for EP operators' Malaya Journal of Matematik, Vol. 9, pp. 709-714, 2021.

11. **Kamaraj K.** Sam Johnson P. and SachinManjunathNaik, ‘Generalized principal pivot transform and its inheritanceproperties’ Journal of Analysis, Vol. 30, pp. 1241-1256, 2022.
12. **Kamaraj K.** and Sam Johnson P. AthiraSatheesh K, ‘Reverse order law for generalized inverses with indefinite Hermitian weights’ Filomat, Vol. 37, pp. 699-709, 2023.
13. AthiraSatheesh K, **Kamaraj K.** and Sam Johnson P. “Algebraic Proofs of Characterizing Reverse Order Law for Closed Range Operators in Hilbert Spaces”, Eurasian Mathematical Journal, Accepted for Publication, 2023.

**c. National Journals:**

➤ **Conferences**

**a. International Conferences:**

1. Presented a paper on ‘Characterization of Normal Matrices in an Indefinite Inner Product Spaces’ in the International conference on Combinatorial Matrix Theory and Generalized Inverses of Matrices held during January 10-11, 2012.

**b. National Conferences:**