

## Faculty Profile

1. Name : Prabakaran K
2. Designation : Professor / Maths
3. Date of Joining : 23.06.2006
4. Nature of Association : Regular
5. E mail :  
prabakaran@ksrct.ac.in
6. Mobile no. : +91 9043678079
7. **Academic Qualifications:**



| Course                | Name of the Institution / University                                   | Year of Passing | % of Marks                        | Class  |
|-----------------------|--|-----------------|-----------------------------------|--------|
| Ph.D<br>(Mathematics) | Bharathiar University  | March 2014      | -                                 | -      |
| M.Phil                | Kongunadu Arts and Science College, Coimbatore & Bharathiar University | March 2003      | 63.25%<br>Highly<br>Comme<br>nded | First  |
| M.Sc.                 | Erode Arts College, Erode & Bharathiar University                      | May 2001        | 75.05%                            | First  |
| B.Sc.                 | Chikkaiah Naicker College, Erode & Bharathiar University               | April 1999      | 49.80%                            | Third  |
| HSC                   | Government Higher Secondary School                                     | April 1995      | 55.25                             | Second |
| SSLC                  | Government Higher Secondary School                                     | April           | 64                                | First  |

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### 8. Teaching Experience

**Professor**, K.S.Rangasamy College of Technology, Tiruchengode, from 25.06.2018 to till-date.

**Associate Professor**, K.S.Rangasamy College of Technology, Tiruchengode, from 24.03.2016 to 24.06.2018.

**Assistant Professor**, K.S.Rangasamy College of Technology, Tiruchengode, from 01.07.2010 to 23.03.2016.

**Lecturer**, K.S. Rangasamy College of Technology, Tiruchengode, from 23.06.2006 to 30.06.2010.

**Lecturer**, Vinayaga Mission Kirupanantha variyar Engineering College ,Salem 14.05.2003 to 21.05.2006

**Ph. D**

- **Thesis title:** A Numerical Study on Linear, Time varying and Stiff Systems Using Single Term Haar Wavelet Series method

## 9. Publications

### International Journals

1. **K.Prabakaran et al.**, Stability Results of Thermal Control System with Time-Dependent Delays and Perturbations of Nonlinearity, Advances in Materials Science and Engineering Volume 2022, Article ID 4486756, 10 pages <https://doi.org/10.1155/2022/4486756>. SCIE, Hindawi Publication.
2. N.Lalithamani, **K.Prabakaran** and Merga G, Complete Intuitionistic Fuzzy Inner Unitary Subsemigroups on a Regular Semigroup, Journal of Research in Applied Mathematics, Vol 8, issue 6, 2022, pp 25-31, Issn 2394-0743, 2394 0735, Google scholar.
3. **K.Prabakaran**, S.Umameswari, The analysis of stability involved in Neural Network using Cohen Grossberg Method, GIS Science Journal, Volume 8, Issue 6, pp 1120-1127, 2021 (ISSN 0976 0977), UGG Group II journal. Doi: 20.18001.GSJ.2021.V8I6.21.37395.
4. **K.Prabakaran**, N.Lalithamani, and R.Ramesh, Medical Images Segmentation using Haar Wavelet techniques, Indian Journal of Natural Sciences, Volume 10, Issue 62, pp 27927-27933, 2020 (ISSN 0976 0977), Clarivate Analytics (WoS). Impact Factor 0.55.
5. N.Lalithamani, **K.Prabakaran** and R.Ramesh, Intuitionistic fuzzy ideals and fuzzy Filters of ternary semigroups, International Journal of Advances in Mathematics: Scientific Journal, Volume 9, Issue 11, pp 9535- 9540, 2020 (ISSN 1857 8365), Scopus Index, Impact Factor 0.12 H Index 5, Doi.org/10.37418/amsj.9.11.56.
6. S. Umameshwari, **K.Prabakaran** and N.Lalithamani, A Review on Image Enhancement Techniques, International Journal of Advanced Science and Engineering Research, Volume 5, Issue 1, pp 574-579, 2020 (ISSN 2455 9288).
7. K.Kiruthiga, P.Kiruthiga, N.Lalithamani and **K.Prabakaran**, A New fuzzy approach for Segmentation of Chromosomes, International Journal of Current Engineering and Scientific Research, Volume 5, Issue 4, pp 23-29, 2018. (ISSN 23938374) SE Impact Factor 0.73.
8. N.Lalithamani, **K.Prabakaran**, S.Jagatheswari and P.Kiruthiga, A New Adaptive Filter for Removal of Impulse noise with Uncertainty, Asian journal of Research in Social Sciences and Humanities, Vol 6, No.7, July 2016, pp 296-308. (ISSN : 2249 7315) (Annexure I).

9. **K.Prabakaran**,N.Lalithamani and P.Kiruthiga, Speckle Reduction algorithm for medical ultrasound imaging, Asian journal of Research in Social Sciences and Humanities, Vol 6, No.6, June 2016 ,pp 148-159.( ISSN : 2249 7315) (Annexure I).
- 10.K Senthilvadivu, N.Lalithamani and **K.Prabakaran** , The Effect of Thermal Stratification with Variable Viscosity and Thermal Conductivity on Free Convection Flow along a Vertical Plate with Heat Sink, Mathematical Sciences International Research Journal, Volume 6,( No 2), 2017, pp 182-189 (ISSN: 22788697) SE Impact Factor 2.73
- 11.**K.Prabakaran** and N.Lalithamani, Analyzed on Domination and Diameter in Graphs, International Journal of Applied Engineering Research,Volume 11,(No1), January 2016, pp 162-166 (ISSN: 0973-4562) SCOPUS Index, Impact Factor 0.14.
- 12.**K.Prabakaran** and S.Vengataasalam, Numerical Strategies for the Time Varying Delay System using Haar Wavelet Method, International Global Journal of Pure and Applied Mathematics (GJPAM), Volume 11, (No1) 2015, pp 62-67. (ISSN: 0973-1768) SCOPUS Index, Impact Factor 0.19.
- 13.**K.Prabakaran**,S.Vengataasalam and G.Balaji, Numerical analysis of state space systems using Single Term Haar Wavelet Series, Applied Mathematical Sciences, Volume 8 (No 83), 2014, pp 4125-4135.(ISSN 1312-885X) (Impact Factor: 0.47)
- 14.**K.Prabakaran** and S.Vengataasalam, Convergence of single term Haar wavelet series method for linear singular systems, International Journal of Mathematical Sciences and Engineering Applications, Volume 7, No II, 2013,pp 69-77,2013. (ISSN 0973-9424). ( Global Impact Factor: 0.5650)
- 15.S.Sekar,**K.Prabakaran** and E.Paramanathen, Single term Haar wavelet series technique for time varying case of linear and non- linear systems, International Proceeding IEEE Xplore, March 2012, pp 364-369.
- 16.S.Sekar and **K.Prabakaran**, Single term Haar wavelet series method for the solution of time Varying singular systems, International Proceeding IEEE Xplore, July 2011, pp 1-6.
- 17.S.Sekar and **K.Prabakaran**, Numerical Solution of Higher Order Linear Singular System Using Single term Haar Wavelet series method, International Journal of Mathematical Sciences and Applications, Volume 1, No. 2, May 2011, pp 737-746.( ISSN 2230-9888) (Impact Factor: 1.318)
18. S.Sekar, **K.Prabakaran** and E.Paramanathan, Single term Haar wavelet series approach to linear stiff systems, International Journal of Advances in Theoretical and Applied Mathematics (ATAM), Volume 6 , No 2, 2011, pp 161-170.( ISSN 0973-4554) (Impact Factor: 1.16)

19. **K.Prabakaran** and S.Sekar, Numerical Solution of Linear and Non-Linear Singular Systems using Single Term Haar Wavelet Series Method, International Journal of Communications in Computer and Information Sciences, Springer Verlag, Volume 140,2011, pp 204-212.(ISSN- 1865-0929). (Impact Factor: 0.31)
20. S.Sekar and **K.Prabakaran**, Numerical solution of nonlinear problems in the calculus of Variations using single term Haar wavelet series, International Journal of Mathematics and Computing Applications, Volume 2, No.1, January-June, 2010, pp 25-33. (Impact Factor: 0.36)
21. Viswanathan,S.Jagatheswari and **K.Prabakaran**, Fuzzy and Position Based Particle Swarm Optimized Routing In Vanet, International Journal of Gedrag and Organisatie, Volume 33,Issue 2, pp 2771-2791,2020 (ISSN 0921 5077).

**International Conférences :**

1. Block Procedure for Doing Legendre Polynomials of Numerical Solutions in Ordinary Differential Equation, 8<sup>th</sup> International Conference on Mathematics and Computing, Organized by Vellore Institute of Technology, Vellore, 6 to 8 January 2022.
2. International Conference on FMAACM 2021 “Application on Haar Wavelet Techniques for Enhanced Chromosome Medical Image Segmentation” February 25-26- 2021,hosted online by the Pondicherry University (A Central University of India),India.
3. International Conference on FMAACM 2021 “A Study on Intuitionistic fuzzy ideals and Intuitionistic fuzzy filters of ternary Semigroup” February 25-26- 2021 , hosted online by the Pondicherry University (A Central University of India),India.
4. Existence of fuzzy solutions for Second order impulsive functional differential equations, International Conference on Advanced Science and Engineering Research, Organized by Al Ameen Engineering College, Erode, 23<sup>rd</sup> March 2019.
5. Analyzed on domination and diameter in graphs, International Conference on Applied Mathematical Models, Organized by PSG College of Technology, Coimbatore, January 5-7, 2016.
6. Numerical Strategies for the time varying delay system using in Haar Wavelet method, International Conference on Advances in Computing, Control, Communication, Automation and Structural Engineering ,rganized by Al Ameen Engineering College, Erode, 10- 11, April 2015.
7. Numerical solution of state Equation using Single term Haar Wavelet Series method, International conference on Applied Mathematics models, Organized by PSG College of Technology, Coimbatore, January 03-05, 2014.
8. Convergence analysis of single term Haar wavelet series and the solution of linear singular systems, International Conference on Mathematical modeling and applied Soft Computing, Organized by Coimbatore Institute of Technology, Coimbatore, July 11-13, 2012.
9. Single term Haar wavelet series technique for time varying case of non linear singular systems, International Conference on Mathematics in Engineering and

- business Management, Organized by Stella Maris College and Loyola institute of Business Administration, Chennai, March 9-10,2012
10. Single term Haar wavelet series technique for time varying linear and non linear singular systems, International Conference on Pattern Recognition, Informatics and Medical Engineering, Organized by Periyar University, Salem, March 21-23,2012
  11. Numerical Solution of linear and Non linear singular systems using Single term Haar wavelet series method, International Conference on Logic, Information, Control and Computation, Organized by Gandhigram Rural Institute Deemed University, Gandhigram, February 25-27,2011
  12. Single term Haar wavelet series method for the solution of time varying singular systems, International Conference on Process Automation, Control and Computing , Organized by Coimbatore Institute of Technology, Coimbatore ,July 20-22,2011.

#### **National Conferences**

1. Single term Haar wavelet series approach to linear stiff systems, National Conference on Recent Frontiers in Applied Dynamical systems, Organized by Karunya University, Coimbatore , January 21-22,2011
2. Numerical Solution of Nonlinear problems in the Calculus of Variations using Single term Haar wavelet series, National Conference on Recent Frontiers in Applied Dynamical systems, Organized by Karunya University, Coimbatore, January 21-22,2011

#### **10. Invited Lecture Delivered**

1. CSIR Sponsored National Seminar on “Contribution of Mathematical Models In Biomedical Imaging” on 14.05.2019 at Velalar College of Engineering and Technology, Thindal, Erode.
2. CSIR Sponsored National Seminar on “Mathematics Applications for Agricultural Development” on 27.03.2019 at Vivekanandha College of Technology for Women, Tiruchengode.
3. Guest Lecture on “Numerical methods and Application” on 23.07.2016 at Vinayaga Mission Research Foundation University, Salem.
4. Guest Lecture on “National Service Scheme – Social work” on 07.03.2016 at K S R College of Education, Tiruchengode.

#### **11. Membership in Professional Bodies**

- Life time Member of Indian Society of Technical Education (LM 54111)
- Institute for Engineering Research and Publication. ( PMIN74093856)
- Math Tech Thinking Foundation (MTTF11644521)

#### **12. Awards and Recognitions**

- Anna university level best National Service Scheme Programme Officer award received in the academic year 2018- 2019 &2013-2014..

- Anna university level best NSS Unit award received in the academic year 2013-2014 and 2019-2020.

### 13. Resrach Activities

- Presently Guiding 01 **Ph.D. students**
- Recognized supervisor by Anna University, Chennai
- **Area of Expertise/Research Interests**
  - Numerical methods
  - Fuzzy image Processing
  - Graph Theory
- **Reviewer for**
  - . International Journal of IEEE Transactions on Fuzzy Systems.
  - SN Computer Science (Elsevier Publication)
  - Journal of Optimization Theory and Applications (JOTA)
  - Indian Journal of Science and Technology
  - International Journal of Statistics and Mathematical Engineering.

### 14. Personal Details

**Fathers Name** : C.Karunakaran

**Date of Birth & Age** : 12.01.1978 &43Years

**Gender** : Male

**Marital Status** : Married

**Permanent Address** : 196,Vasantha nagar,  
Allampalayam Post,  
Pallipalayam,  
Erode – 638008,  
Tamilnadu, India.