

Name : Dr. K. Sathiyakumari

Designation : Associate Professor

Department : Computer Science

Qualification : MCA.,MPhil.,Ph.D.,

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AREA OF INTEREST

- Data Mining, Social Network Mining and Machine Learning

WORKING EXPERIENCE

- Associate Professor - Department of at Computer Science (UG) - June 2015 to till date at PSGR Krishnammal College for Women, Coimbatore.
- Assistant Professor – GR Govindarajulu School of Applied Computer Technology (MCA) – June 2006 to May 2015 at PSGR Krishnammal College for Women, Coimbatore.
- Lecture – Department of Computer Science and Engineering - August 2000 to May 2005 at Bharathiar University, Coimbatore.

ACADEMIC QUALIFICATION

Degree	Branch	Institution Name / University	Year of Graduation
Ph.D.	Computer Science	Bharathiar University	2020
M.Phil	Computer Science	Bharathiar University	2007
MCA	Computer Application	Bharathiar University	2000
B.Sc.	Computer Science and Computer Applications	Avinashilingam Institute for Home Science and Higher Education for Women	1997

RESEARCH EXPERIENCE

- A recognized MPhil guide in Bharathiar University from 2007 and produced 14 MPhil scholars.

RESEACH PUBLICATION

- *Dr. K. Sathiyakumari*, Hybrid Approach for Community Detection using K-Core and Clique Percolation, *Zeichen Journal* , Vol. 7 (2021) , pp. 187 – 201.
- *K.Sathiyakumari ;Vijaya M.*, Overlapping community structure detection using twitter data, *International Journal on Emerging Technologies* , Vol. 11 (2020) , pp. 101-107
- *Sathiyakumari K.;Vijaya M.S.*, Association rule mining for clique percolation on community detection, *International Journal of Advanced Science and Technology* , Vol. 29 (2020) , pp. 1492-1503.

- *Sathiyakumari K.;Vijaya M.*, Identification of subgroups in a directed social network using edge betweenness and random walks, Smart Innovation Systems and Technologies , Vol. 77 (2018) , pp. 115-125.
- *K. Sathiyakumari, Dr. M. S.Vijaya*, Approaches for finding cohesive subgroups in social networks using maximal k-plex International Journal of Pure and Applied Mathematics , Vol. (2018) , pp.
- *K. Sathiyakumari, P. Sasikala*,Protein Sequence Detection Using Ensemble Learning, International Journal of Pure and Applied Mathematics , Vol. (2018) , pp.
- *K. Sathiyakumari, Dr.M.S.Vijaya*, Maximal K-Core Sub graph Analysis of Twitter data Network, Journal of Advanced Research in Dynamical and Control Systems , Vol. (2018) , pp.
- *K. Sathiyakumari, P. Sasikala*, Protein sequence analysis for breast cancer disease, International Journal of Engineering Research and Application, Vol. (2017) , pp.
- *K. Sathiyakumari*, Ensemble Learning Techniques for Appendicitis Prediction,International Journal of Computer Applications , Vol. (2017) , pp.
- *K. Sathiyakumari, S. Keerthana*, Supervised Learning Approach For Brain Stroke Classification Using Deep Learning Techniques, International Journal of Research in Engineering and Technology, Vol. (2016) , pp.
- *K.Sathiyakumari.;Vijaya M.*, Community detection based on Girvan Newman algorithm and link analysis of social media, Communications in Computer and Information Science , Vol. 679 (2016) , pp. 223-234.
- *K. Sathiyakumari, S.Dhiviya*, Comparison of Support Vector Machine and its variants for Appendicitis Disease Categorization, 2nd IEEE International Conference on Engineering and Technology (ICETECH) , Vol. (2016) , pp.
- *K. Sathiyakumari, M.Preethi*,Human Skin Texture Analysis Using Support Vector Machine For Medical Diagnosis, 2nd IEEE International Conference on Engineering and Technology (ICETECH) , Vol. (2016) , pp.
- *K. Sathiyakumari, S. Keerthana*, Brain Stroke Detection Using Machine Learning Approaches, 2nd IEEE International Conference on Engineering and Technology (ICETECH) , Vol. (2016) , pp.
- *K. Sathiyakumari, S. Keerthana*, Brain stroke segmentation using fuzzy C-means clustering, International Journal of Computer Applications, Vol. (2016) , pp.
- *K. Sathiyakumari, M.Preethi*, Analysing Human Skin Texture using Machine Learning Approaches, International Journal of Computer Applications, Vol. (2016) , pp.

- *K Sathiyakumari, A Priyanka*, A comparative study of hidden Markov models learned by optimization techniques using DNA data for multiple sequence alignment, International Journal of Scientific & Engineering Research, Vol. (2015) , pp.
- *K. Sathiyakumari, A. Priyanka*, A Comparative Study of Classification Algorithm Using Accident Data
- International Journal of Computer Science & Engineering Technology, Vol. (2014) , pp.
- *K.Sathiyakumari, B.Padma Priya*, Classification of unwanted messages in online Social Network using Machine Learning Algorithms, International Journal of Computer Trends and Technology , Vol. (2013) , pp.
- *K. Sathiyakumari, S. Krishnaveni*, A Survey of Expert Finding in Academic Social Network, International Journal of Engineering Sciences & Research Technology, Vol. (2013) , pp.
- *K. Sathiyakumari & B. Padma Priya*, A Survey of Community Detection in Online Social Network, International Journal of Engineering Sciences & Research Technology, Vol. (2013) , pp.
- *K Sathiyakumari & S Krishnaveni*, Multiclass classification of XSS web page attack using machine learning techniques, International Journal of Computer Applications, Vol. (2013) , pp.
- *K Sathiyakumari, S Krishnaveni*, Efficient Prediction of Cross-Site Scripting Web Pages using Extreme Learning Machine, International Journal of Computer Science & Engineering Technology, Vol. (2013) , pp.
- *K. Sathiyakumari & S. Geetha*, Link Prediction Model For Page Ranking Of Blogs, International Journal on Computer Science and Engineering , Vol. (2012) , pp.
- *K.Sathiyakumari , R Hema Latha*, Survey on link prediction In Facebook and Twitter, International Journal of Engineering Research and Applications , Vol. (2012) , pp.
- *K. Sathiyakumari, S.Geetha*, Survey on Link Prediction and Page Ranking In Blogs, International Journal of Engineering Research and Applications , Vol. (2012) , pp.
- *K. Sathiyakumari, R. Hema Latha*, An Analysis of Link Strength In Social Networks, International Journal of Engineering Research & Technology , Vol. (2012) , pp.
- *K Sathiyakumari, V Preamsudha, G Manimekalai*, A Comparative Study Of Fuzzy Models in Document Clustering, International Journal on Computer Science and Engineering, Vol. (2012) , pp.
- *K. Sathiyakumari & S. Geetha*, Backlink Analysis using Mozrank Algorithm of Blogs, International Journal of Computer Science & Applications, Vol. (2012) , pp.
- *K Sathiyakumari & R Hema Latha*, Predicting Link Strength In Online Social Networks, International Journal of Engineering Research and Applications, Vol. (2012) , pp.

- *K. Sathiyakumari, V. Pream Sudha and G. Manimekalai, Unsupervised Approach for Document Clustering Using Modified Fuzzy C mean Algorithm, International Journal of Computer & Organization Trends, Vol. (2011) , pp.*
- *K Sathiyakumari, A Survey on Various Approaches in Document Clustering, International Journal of Computer Technology and Application, Vol. (2011) , pp.*
- *K Sathiyakumari, A tree based model for high performance concrete mix design, International Journal of Engineering Science and Technology, Vol. (2010) , pp.*
- *K Sathiyakumari, Prediction of the Compressive Strength of High-Performance Concrete Mix using Tree Based Modeling, International Journal of Computer Applications, Vol. (2010) , pp.*
- *K Sathiyakumari, A Comparative study of Machine Learning algorithms applied to predictive diabetes data, International Journal of Data Mining Knowledge Engineering, Vol. (2009) , pp.*
- *K.Sathiyakumari, Dr.M.S. Vijaya, Maximal Clique and K-Clique Analysis of Twitter Data Network, International Journal of Pure and Applied Mathematics , Vol. , pp.*
- *K. Sathiyakumari, S. Keerthana, A Brief Study of Image Processing and Techniques, International Journal of Digital Image Processing, Vol. , pp.*
- *K. Sathiyakumari, V. Pream Sudha, A Comparative Study of Machine Learning Algorithms Applied to Predictive Diabetes Data, CiiT International Journal of Data Mining and Knowledge Engineering, 2009 (Indexed in Google Scholar)*

PRESENTATION IN CONFERENCE

- *K Sathiyakumari, Thalaseemia Prediction using DeepNeural Networks: A Step towards Personalized Medicine, International Conference on Machine Learning and Automated Systems, Stamford International University, Thailand, 12-03-2025, Pages 844-847. DOI:10.1109/ICMLAS64557.2025.10968771*
- *K Sathiyakumari, A Comprehensive Survey On Classification Methodologies Using Machine Learning For Identifying Animals And Their Species, International Conference on Computational Intelligence (ICCI 2025) , Vol. (2025) , pp.*
- *K Sathiyakumari, Code Review Prompt Approach for Logical Error Detection, International Conference on Computational Intelligence (ICCI 2025) , Vol. (2025) , pp.*
- *K Sathiyakumari, Identification of subgroups in a directed social network using edge betweenness and random walks, Smart Innovation Systems and Technologies, 77, pp. 115-125, 2018.*

- K Sathiyakumari, Community detection based on Girvan Newman algorithm and link analysis of social media, Communications in Computer and Information Science, Volume 679, Year 2016, Pages 223-234.[DOI:10.1007/978-981-10-3274-5_18](https://doi.org/10.1007/978-981-10-3274-5_18)
- *K Sathiyakumari, Krishnaveni S.*, SpiderNet: An interaction tool for predicting malicious web pages, 2014 International Conference on Information Communication and Embedded Systems ICICES 2014 , Vol.(2015) , pp.

BOOKS

- Predictive Model for Discovering Appendicitis using Machine Learning, Dr.K. Sathiyakumari, Dr. V. Pream Sudha, Merimax International Publishers, 2025, ISBN: 978-81-993169-7-3.
- AI and Machine Learning for Detecting Turmeric Leaf Diseases, Dr. V. Pream Sudha, Dr. K. Sathiyakumari, Lambert Academic Publishing, 2025, ISBN: 978-620-8-43037-5.

RESEARCH PROJECT

- Dr. K. Sathiyakumari (PI) - Predictive Model for Discovering Appendicitis using Machine Learning – Funded by UGC –Rs. 3,05000- April 2014-April 2016, MINOR PROJECT.