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Department of Computer Science
[On Deputation: Government Arts and Science College for
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Google Scholar Id: kaF7hs_AAAAJ



Professional Details

Academic Experience	<ul style="list-style-type: none"> Government Arts and Science College for Women,Puliakulam,Coimbatore-641045.(Mar 10(AN) –Till Date Government Arts College,Udumalpet.(Oct 2015 – Mar 10(FN)) PSG College of Technology, Peelamedu (Jun 2005-Oct 2015) Sri Ramakrishna Arts and Science College for Women, Siddhapudur (Jul 2003-Jun 2005) VLB Janakiammal College of Arts and Science,Kovaipudur (Jun 2002-Jul 2003)
Educational qualifications	<ul style="list-style-type: none"> 1999 - B.Sc Mathematics,Bharathiar University, Coimbatore. 2002 - M.C.A, Bharathiar University,Coimbatore. 2005 - M.Phil Computer Science, Bharathidasan University,Trichy. 2009 - M.E Computer Science and Engineering, Anna University,Coimbatore 2016 - Ph.D, Anna University,Chennai.
Expertise Area	<ul style="list-style-type: none"> Big Data & Data Analytics Machine Learning
Thesis Title	Certain Investigations on Mining Significant Class Association Rules for Efficient Classifier Construction
Professional Memberships and Activities	<ul style="list-style-type: none"> ACM (Association for Computing Machinery) ACCS (Advanced Computing and Communication Society, Coimbatore Chapter)
Publications	<p>Journals</p> <ul style="list-style-type: none"> M.Priya, M.Nandhini ,”Detection of fetal brain abnormalities using data augmentation and Convolutional neural network in Internet of things”, Measurement: Sensors,Vol 28, August 2023. https://doi.org/10.1016/j.measen.2023.100808 M.Nandhini ,M.Priya,”Fetal Health Status Prediction using Artificial Neural Network with Hyper-Parameter Tuning”, International Journal of Early Childhood Special Education, Volume 14, pp: 9026-9037, 2022. M.Nandhini, “An Insight on Artificial Intelligence in Healthcare System”, ACTA Scientific Computer Sciences, Volume 4, Issue 5, May 2022. Rubia., G,M.Nandhini, “Predictive Soil Analytics Using Data Mining Techniques”, INFOCOMP Journal of Computer Science, Volume 20, 2021. M.Nandhini, Rajalakshmi M, Sivanandam S N, “Performance Analysis of Predictive Association Rule Classifiers using Healthcare Datasets”, IETE Technical Review, pp:1-14, Oct,2020 (SCI Index,IF-2.175) Ms.R.Mahalakshmi, Dr. Nandhini M, Ms. G. Kowsalya,2018, “Sentimental Analysis for Social Media – A Review”, International Journal of Advanced Networking and Applications, vol 10, issue: 03 pp: 3860-3863, ISSN: 0975-0290. Nandhini M, Rajalakshmi M, Sivanandam S N,2017, “Experimental and Statistical Analysis on the Performance of Firefly based Predictive Association Rule Classifier for Health Care Data Diagnosis”,Control Engineering and Applied Informatics,vol 19,no.2,pp 101-110.(SCI Index,IF:0.775)

- Nandhini M, Sivanandam S N, 2015, “**An Improved Predictive Association Rule Based Classifier using Gain Ratio and T-test for Health Care Data Diagnosis**”, Sadhana, Indian Academy of Sciences, vol. 40, no.6,pp 1-17.(**SCI Index,IF:0.76**)
- Nandhini M, Sivanandam S N, Rajalakshmi M, Sidheswaran D,2015,”**Enhancing the Spam Email Classification Accuracy using Post Processing Techniques**”,International Journal of Applied Engineering Research,vol.10,no.15,pp 35125-35130.
- Nandhini M, Sivanandam S N, Rajalakshmi M, 2015, “**A Review on the Performance of Neural Network Classifier in Health Care Diagnostic System**”, Research Journal of Applied Sciences, Engineering and Technology, vol.11,issue.10.
- Akila R, Nandhini M,Sivanandam S N,2015, “**Hetero Associative Memory Based Neural Network Classifier for Health Care Data Diagnosis**”,International Journal of Innovative Science and Modern Engineering, vol.3,issue 6,pp 86-89.
- Vinu R, Nandhini M, 2013, “**Interactive Post mining of Weighted Association Rules**”, National Journal of Technology, vol 10, no.4, pp.55-63.

Book Chapters

- **M.Nandhini**, S.Aneesh Fathima, “An Analysis Of Agriculture And Healthcare Using Blockchain Embedded With IoT and AI”, Book title: Advances in Multidisciplinary and Current Research,R K Publisher, ISBN-978-93-5813-019-5, pp:181,September,2023.
- **M.Nandhini**, Sivanandam S. N., Renugadevi S.,”Artificial Bee Colony-Based Associative Classifier for Healthcare Data Diagnosis”, Book Title:, Handbook of Research on Disease Prediction Through Data Analytics and Machine Learning, IGI-Global, ISBN-9781799827429, pp. 237-253,October,2020
- **M.Nandhini**,Sivanandam S N, “Extraction of Significant Association Rules Using Pre-and Post-Mining Techniques—An Analysis”, Book Title- Ontology-Based Information Retrieval for Healthcare Systems, John Wiley & Sons, ISBN: 9781119641391 ,pp.37-68, July,2020

Conferences

- “Performance Comparison of the Classifiers for Betel Vine Disease Prediction”, Lecture Notes in Electrical Engineering,Vol 946, • pp. 229–245,1 Jan 2023, Springer, Singapore. https://doi.org/10.1007/978-981-19-5868-7_18 (**Scopus**)
- “An Analysis on the Performance of the KNN Classifier over Betel Leaf Images”, In: AICTE sponsored International Conference on “Recent Trends in Information communication Technologies-2020”,Francis Xavier Engineering College,Tirunelveli,22,Dec,2020.
- “An Experimental study on the Performance of the Classifiers for Soil Analysis of Tiruppur district”, In: AICTE sponsored International Conference on “Recent Trends in Information communication Technologies-2020”,Francis Xavier Engineering College,Tirunelveli,22,Dec,2020.
- “Predicting Fraudulent Claims in Automobile Insurance”,In: Second International Conference on Inventive Communication and Computational Technologies,Coimbatore,IEEE,Coimbatore,20-21,April,2018.
- "Fuzzy Rule Generation in Artificial Bee Colony Algorithm Based Associative Classification", In: National conference on Data Intensive Computing, PSG College of Technology, April, 2016.
- “Association Rule Mining using Swarm Intelligence and Domain Ontology”, In: International Conference on Recent Trends in Information Technology, Madras Institute of Technology,Anna University, Chennai,19-21 April, 2012, pp. 537 - 541. (Citations:7) ISBN: 978-1-4673-1599-9.(**Scopus Citations:24**)
- “A hybrid PSO-GA based Model for Support and Confidence Computation”, In: International Conference on Recent Trends in Computer Science and Engineering, Apollo Engineering College, Chennai, 3-4 May,2012, pp.42. ISBN: 978-81-9089-807-2.
- “Analysis on Hybrid FP-Tree Technique and its Application on Medical Data”, In: International Conference on Recent Trends in Computer Science and Engineering, Apollo Engineering College, Chennai, 3-4 May,2012,pp.36. ISBN: 978-81-9089-807-2.

	<ul style="list-style-type: none"> • “Automatic Web Query Classification”, In: National Conference on Advanced Communications and Networking, CISCO Networking Academy and Avinashilingam University for Women, Coimbatore, 8th January, 2009. <p>Patents</p> <ul style="list-style-type: none"> • Smart Betel Vine Cultivation using IoT”, Filed(05-06-2019),Ref No.201941022354,published in 14-06-2019.
<p>Activities Organized (Workshop, Symposium, Seminar, FDP, Conference, etc.)</p>	<ul style="list-style-type: none"> • Seminar on “Perspectives in Placement Preparation” on 6th March 2007, Dept. of CSE, PSGCT. • Two days “Workshop on Computer Hardware and Installation” during 4th and 5th August, 2007, Dept. of CSE, PSGCT. • “Workshop on Soft skills” on 5th July, 2008, Dept. of CSE, PSGCT. • “Technical Symposium” on 14th February, 2009, Dept. of CSE, PSGCT. • “Inter Collegiate Conference on Research Issues in Computer Science and Engineering” on 9th April,2012, Dept. of CSE, PSGCT. • TEQIP sponsored “Five Day FDP on “Big Data Analytics: Emerging Technologies” during 24 – 28, march,2014, Dept. of CSE, PSGCT.
<p>Invited Talks/Lectures</p>	<ul style="list-style-type: none"> • Lecture on “Computer Hardware and Installation” in the Training Programme conducted by PSG STEP, August 2007. • Lecture on “Weka-A data mining tool” in the FDP on “Data Warehousing and Mining” conducted by Dept of CSE,PSG CT,7th December ,2012. • Lecture on “Weka-A data mining tool” in the National Level Workshop , conducted by Dept of IT,EASA College of Engineering and Technology, 23rd February, 2013. • Lecture on “Weka-A data mining tool” in the AICTE sponsored FDP on “Research Challenges and Emerging trends in Intelligent Information Retrieval”, conducted by Dept of CIS, PSGCT, 3rd May, 2013. • Lecture on “A data mining tool” in the AICTE sponsored FDP on “Emerging trends in Computing- An Academic, Research and Social Perspective”, conducted by Dept of CSE, PSGCT, 16th May, 2013. • Lecture on “Weka-A data mining tool” in the AICTE sponsored FDP on “Computational Intelligence - An Academic, Industrial and Social Perspective”, conducted by Dept of CSE, PSGCT, 10th June, 2013. • Lecture on “An Insight on Data Mining Tools” in the TEQIP PHASE II Sponsored one week FDP on “Data Mining Techniques and Tools-Research Perspective” , conducted by Dept of CSE & IT, CIT,11th November, 2013. • Lecture on “Massive Online Analysis (MOA)-A big data mining tool” in the TEQIP PHASE II Sponsored Five Day FDP on “Big Data Analytics: Emerging Technologies” , conducted by Dept of CSE, PSGCT, 28th March, 2014. • Lecture on “Introduction to Weka tool” in the TEQIP PHASE II Sponsored FDP on “Data Mining and Information Retrieval”, conducted by Dept of IT, PSGCT, 27th April ,2014. • Lecture on “R-Software for Statistical Computing” in the FDP, conducted by Dept of CS,STC,18th June , 2016. • Lecture on “Data Analytics using R-Software” in the FDP, conducted by Dept of CS,STC,23rd July ,2016. • Lecture on “Weka –A Data mining Tool”, in the FDP, conducted by Dept of IT,STC, 28th November,2017. • Lecture on “Online User behavior Tracking-challenges and Defenses”, in the CSIR sponsored Seminar on Power of Big data in Cyber Security,conducted by Department of ECE,Hindusthan College of Engineering,Coimbatore,13th July,2019. • Lecture on “Data Mining using R-tool” in the State Level FDP sponsored by TNSCST, conducted by Department of Computer applications, NGM College,Pollachi,9-10th, Jan ,2019. • Lecture on “Demystifying Data Science” in the One Week National Level Online Faculty Development Programme on “ Recent Advancements in Artificial Intelligence”,conducted by Department of Computer Science and Engineering,

	<p>Shri Vishnu Engineering College for Women (Autonomous), Bhimavaram,23-27,June,2020 .</p> <ul style="list-style-type: none"> • Lecture on “Weka tool” in the FDP conducted by Department of ICT and Cognitive Systems,Sri Krishna Arts and Science College,Kuniyamuthur,Coimbatore, 9th Jan,2021 • Lecture on “A Perspective on Data Science”,conducted by Department of Computer Technology,KG College of Arts and Science,Coimbatore,24th May,2021. • Lecture on “Prospects and Trends in ML “ in One Week National Level Online Faculty Development Programme on “Societal Applications of Machine Learning” ,conducted by Department of Computer Science and Engineering, Shri Vishnu Engineering College for Women (Autonomous), Bhimavaram,24th May,2021. 28th December 2022. • Lecture on “Data Mining using R-tool” conducted by Department of Computer applications, NGM College,Pollachi,23rd Jan,2023. • Lecture on “Demystifying AI &MLI” conducted by Department of Computer applications, Government Arts College,Coimbatore, ,23rd Mar,2023. • Lecture on “Trends in AI” conducted by Department of Computer Science,Dr.R.V.College of Arts and Science,Karamadai, 14th July,2023. • Lecture on “The Synergy of Mathematics and Computer Science” conducted by Department of Mathematics,Government Arts and Science College,Mettupalayam, 23rd Dec,2023.
Academic Supervisory Work (Research guidance)	<ul style="list-style-type: none"> • G.Kowsalya, M.Phil (FT),2017, Bharathiar University, Research Centre: Dept. of Computer Science,Government Arts College, Udumalpet. • S.Aneesh Fathima M.Phil (FT),2018, Bharathiar University, Research Centre: Dept. of Computer Science,Government Arts College, Udumalpet. • M.Priya,Ph.D(PT),2017, Bharathiar University, Research Centre: Dept. of Computer Science,Government Arts College, Udumalpet. • G.Rubia,Ph.D(FT),2019, Bharathiar University, Research Centre: Dept. of Computer Science,Government Arts College, Udumalpet. • S.Aneesh Fathima,Ph.D(PT),2021, Bharathiar University, Research Centre: Dept. of Computer Science,Government Arts College, Udumalpet.
Awards and Achievements	<ul style="list-style-type: none"> • Award for excellence in Teacher in Computer Science and Engineering, 30th April, 2019, By Global Outreach Research and Education Association, Jaipur. (Registered under MSME, Government of India) • Best Team Achievement award in Faculty Enablement Programme on Building Enterprise Applications by Infosys Campus Connect, Infosys, Bangalore, August 2012. <p>Awards for the Guidance of Best Project</p> <ul style="list-style-type: none"> • “Sign Language Chat for Hearing Impaired People” was given the best project award by Alumni Association of PSG College of Technology, May 2009 for the students of Final year B.Sc(CT) • “Automated Call Response System” was given the best project award by Alumni Association of PSG College of Technology, May 2010 for the students of Final year B.Sc(CT)
Other Activities	<ul style="list-style-type: none"> • Editorial Board Member-ACTA Scientific Computer Sciences Journal • NPTEL translator for swayam course content (Object-Oriented Analysis and Design (106105153) offered by IIT-Kargapur),Dec 2020 • Reviewer in Elsevier journals(Computers and Electrical Engineering, Computer and information Sciences, International Journal of Mining Science and Technology,Applied Soft Computing),Bulletin of Polish Academy of Sciences • Elite with Gold Medal certificate for NPTEL course on “Introduction to R software”, conducted by IIT, Kanpur, Aug-Sep, 2018.