

Dr. S. Sivakumar,
C/o D. Krishnamoorthy,
2, First Cross Street, D. K. R. Illam,
S. M. V. Purram (West), Villianur,
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Academic Qualification :

- Ph.D. in “*Attention Enhanced Deep Neural Network with Effective Embedding Techniques for Sentiment Analysis*” from School of Computer Science and Engineering, V. I. T. University, Chennai. Completed on 10th December 2021.
- Master of Engineering (**Computer Science**) in St. Joseph’s College of Engg., Anna University, Chennai. Completed with first class on June 2007.
- Bachelor of Technology (**Information Technology**) in Crescent Engg. College, University of Madras, Chennai. Completed with first class on April 2003.
- Diploma in **Electronic Communication Engg.** in Valliammai polytechnic, Kattankalatur, Chennai. Completed with Distinction on April 2000.

Experience :

- As **Assistant Professor** in Sri Ramachandra Faculty of Engineering and Technology, Porur, Chennai from 17 June 2022 to till date.
- As **Associate Professor** in K. L. University, Vaddeswaram, Vijayawada from 28 May 2018 to 03-06-2022. (**4 years**)
- As **Associate Professor** in Dhanalakshmi College of Engg, Manimangalam, Chennai from 24 April 2012 to 24 May 2018. (**6.01 years**)
- As **Assistant Professor** in MPSTME, NMIMS University Mumbai from 12 May 2011 to 28 December 2011. (**8 months**)
- As **Assistant Professor** (Senior) in Hindustan University, Chennai from 21 June 2010 to 12 April 2011. (**10 months**)
- As **Senior Lecturer** in Sri Venkataswara College of Engg. & Technology, Thiruvallur from 27 Jan 2010 to 13 April 2010. (**3 months**)
- As **Lecturer** in St. Joseph’s College of Engg, Chennai -119 from 3 January 2005 to 31 July 2009. (**4.07 years**)
- As **Data Conversion Analyst** in Integra Software Services Private Limited, Pondicherry from 28 July 2003 to 8 November 2004. (**1.04 years**)

Research ID :

- Scopus id: 57200144609
- Orcid : 0000-0002-5073-8949
- Researcher id: U-4974-2018
- Researchgate : https://www.researchgate.net/profile/Sivakumar_Soubraylu/publications
- Google Scholar Index : <https://scholar.google.com/citations?user=CS-rUbcAAAAJ&hl=en>

Achievement :

- Cleared **GATE-2015** with all India rank of 15221.
- Cleared a NPTEL Course on **Programming in Java** with a 91% on April 2021 (**1st Rank-ELITE**).
- Cleared a NPTEL Course on **Problem Solving through Programming in C** with an 87% on Dec 2020 (**ELITE**).
- Cleared a NPTEL Course on **Python for Data Science** with a 71% on March 2021.
- Cleared a NPTEL Course on **Computer Architecture and Organization** with a 64% on Oct 2017 (**6th Rank**).
- Obtain **100%** pass percentage in **Computer Graphics (CS2401)** and **Distributed System (CS2056)** in ANNA University Nov-Dec 2014 Exams.
- Obtain **98%** pass percentage in **Distributed System (CS2056)** in ANNA University Nov-Dec 2015 Exams.

Subject Handled :

Computer Programming, Data Structure and algorithms, Object Oriented Programming, Computer Architecture, Web Technology, Operating System, Visual Programming, Graphics and Multimedia, Advanced Computer Architecture, Compiler Design, Theory of Computation.

SCI Journal Publication:

- Published a paper on “**Hybrid convolutional bidirectional recurrent neural network based sentiment analysis on movie reviews**” in Computational Intelligence (**Wiley-SCI, Scopus**), pp. 1–23, 20 September 2020. <https://doi.org/10.1111/coin.12400>
- Published a paper on “**Performance enhancement of stepped basin solar still based on OSELM with traversal tree for higher energy adaptive control**” in Desalination (**Elsevier-SCI, Scopus**), Volume 502, 2021, 114926, ISSN 0011-9164, pp. 1-15, **IF: 9.501**. DOI: 10.1016/j.desal.2020.114926
- Published a paper on “**Revealing an OSELM based on traversal tree for higher energy adaptive control using an efficient solar box cooker**” in Solar Energy (**Elsevier-SCI, Scopus**), Volume 218, 2021, Pages 320-336, **IF: 4.608**. DOI : 10.1016/j.solener.2021.02.043

Scopus Journal Publication:

- Published a paper on “**Self-attention based sentiment analysis with effective embedding techniques**”, Int. J. Computer Applications in Technology (**Scopus, ESCI**), Vol. 65, No. 1, pp.65–77, 2021. DOI: 10.1504/IJCAT.2021.113651
- Published a paper on “**Analysis of Sentiment on Movie Reviews Using Word Embedding Self-Attentive LSTM**”, International Journal of Ambient Computing and Intelligence (**IJACI-Scopus**), IGI Global, vol. 12(2), pages 33-52, April, 2021. DOI : 10.4018/IJACI.2021040103
- Published a paper on “**Taylor Dirichlet Process Mixture For Speech PDF Estimation And Speech Recognition**” in Advances in Mathematics: Scientific Journal (**Scopus**), Volume 9, no.10, pp. 8675–8683, 2020. DOI: 10.37418/amsj.9.10.93
- Published a paper on “**Attention-Based Convolution Bidirectional Recurrent Neural Network for Sentiment Analysis**” in International Journal of Decision Support System Technology (**IJDSST-Scopus, ESCI**), Volume 14, no.1, pp. 1–21, 2022. DOI : 10.4018/IJDSST.300368
- Published a paper on “**Context-aware sentiment analysis with attention-enhanced features from bidirectional transformers**” in Social Network Analysis and Mining (**Springer-Scopus, ESCI**), 2022. DOI : 10.1007/s13278-022-00910-y (**Under Production**)

Book Published:

- Published a book on “**COMPUTER ARCHITECTURE**” for R-2013 ANNA University, Chennai in S.

S. L. Publication, Chennai, December 2015.

- Published a book on “**CENTUM SOLUTION BOOK Maths – 10 Marks**” for Higher Secondary State Board in S. S. L. Publication, Chennai, October 2014.

Chapter Published:

- Published a chapter named “**Virtual Vision Architecture for VIP in Ubiquitous Computing**” for the book series “Technological Trends in Improved Mobility of the Visually Impaired” (**Springer-Scopus**), pp. 145-179, July 2019. DOI : 10.1007/978-3-030-16450-8_7
- Published a chapter named “**A complete automated solution for farm field and garden nurturing using Internet of Things**” for the book series “Smart Agriculture Emerging Pedagogies of Deep Learning, Machine Learning and Internet of Things” (**CRC Press**), E-ISBN: 9781003138884, January 15, 2021. DOI : 10.1201/b22627-12

Conferences Presented :

- Presented paper on “**Programing in Flash Memory**” in Pallava Engg. College and K. S. R. Engg. College (Jan-Feb 2002).
- Presented paper on “**Raw Packet Generator**” in Jaya Engg. College – WEBTOPS (March 2007). Raw Packet Generator was created using TCL/TK and WinPcap.
- Presented paper on “**MANET Routing Assaults using Risk-Aware Palliation in OLSR**” in Apollo engineering College, Chennai – Apollo Research Conference 12th April 2013.
- Presented paper on “**Sporadic Associated Mobile Networks with Auto Adjust Dispute Realisation Routing Protocol**” in Tagore Engineering College, Chennai – International Conference on Electrical, Communication & Computing on 13th and 14th March 2014.
- Presented paper on “**Digital License mv**” in SSN College of Engineering, Chennai – IEEE International Conference on Wireless Communication, Signal Processing and Networking (ICWCSPN–**Scopus**) on 23th - 25th March 2016. DOI : 10.1109/WiSPNET.2016.7566342
- Presented paper on “**ISCAP: Intelligent and Smart Cryptosystem in Android Phone**” in SSN College of Engineering, Chennai – IEEE 2017 International Conference On Power And Embedded Drive Control (ICPEDC-**Scopus**) on 16th - 18th March 2017. DOI: 10.1109/ICPEDC.2017.8081132
- Presented paper on “**Automated unified system for LPG using load sensor**” in SSN College of Engineering, Chennai – IEEE 2017 International Conference On Power And Embedded Drive Control (ICPEDC-**Scopus**) on 16th - 18th March 2017. DOI: 10.1109/ICPEDC.2017.8081133
- Presented paper on “**Attendance Automation Using Face Recognition Biometric Authentication**” in SSN College of Engineering, Chennai – IEEE 2017 International Conference On Power And Embedded Drive Control (ICPEDC-**Scopus**) on 16th - 18th March 2017. DOI: 10.1109/ICPEDC.2017.8081072
- Presented paper on “**DMMRA: Dynamic Medical Machine for Rural Areas**” in SSN College of Engineering, Chennai – IEEE 2017 International Conference On Power And Embedded Drive Control (ICPEDC-**Scopus**) on 16th - 18th March 2017. DOI: 10.1109/ICPEDC.2017.8081135
- Presented paper on “**Automated Toll Booth and Theft Detection System**” in SRM Easwari Engineering College, Chennai – IEEE 2017 Technological Innovations in ICT for Agriculture and Rural Development (TIAR-**Scopus**) on 07th - 08th April 2017. DOI: 10.1109/TIAR.2017.8273691
- Presented paper on “**Multiservice Product Comparison System with Improved Reliability in Big Data Broadcasting**” in Jeppiaar Engineering College, Chennai – IEEE 2017 Third International Conference on Science Technology Engineering & Management (ICONSTEM-**Scopus**) on 23th - 24th

March 2017. DOI: 10.1109/ICONSTEM.2017.8261256

- Presented paper on “**Securing Inter Domain Routing Decisions Using VPREF Algorithm**” in Jeppiaar Engineering College, Chennai – IEEE 2017 Third International Conference on Science Technology Engineering & Management (ICONSTEM-Scopus) on 23th - 24th March 2017. DOI: 10.1109/ICONSTEM.2017.8261258
- Presented paper on “**D2CMUS: Detritus to Cinder Conversion And Managing Through Ultrasonic Sensor**” in Jeppiaar Engineering College, Chennai – IEEE 2017 Third International Conference on Science Technology Engineering & Management (ICONSTEM-Scopus) on 23th - 24th March 2017. DOI: 10.1109/ICONSTEM.2017.8261254
- Presented paper on “**Social Media Learning System for Effective Mood Recognition Using SVM**” in Jeppiaar Engineering College, Chennai – IEEE 2017 Third International Conference on Science Technology Engineering & Management (ICONSTEM-Scopus) on 23th - 24th March 2017.
- Presented paper on “**SISFAT: Smart Irrigation System With Flood Avoidance Technique**” in Jeppiaar Engineering College, Chennai – IEEE 2017 Third International Conference on Science Technology Engineering & Management (ICONSTEM-Scopus) on 23th - 24th March 2017. DOI: 10.1109/ICONSTEM.2017.8261252
- Presented paper on “**Smart Device for Visually Impaired People**” in Jeppiaar Engineering College, Chennai – IEEE 2017 Third International Conference on Science Technology Engineering & Management (ICONSTEM-Scopus) on 23th - 24th March 2017. DOI: 10.1109/ICONSTEM.2017.8261257
- Presented paper on “**Comparative Evaluation of various feature weighting methods on movie reviews**” in Veer Surendra Sai University of Technology, Sambalpur, Odisha – Springer 2017 International Conference on Computational Intelligence in Data Mining (ICCIDM-Scopus) on 11th and 12th of November 2017. DOI: 10.1007/978-981-10-8055-5_64
- Presented paper on “**Theft Detection System using PIR Sensor**” in SSN College of Engineering, Chennai – IEEE International Conference on Electrical Energy Systems (ICEES-Scopus) on 07th and 09th of February 2018. DOI: 10.1109/ICEES.2018.8443215
- Presented paper on “**Predicting Airline Crash due to Birds Strike Using Machine Learning**” in Saveetha Engineering College, Chennai – IEEE 2020 7th International Conference on Smart Structures and Systems (ICSSS-Scopus) on 23rd and 24th July 2020. DOI: 10.1109/ICSSS49621.2020.9202137
- Presented paper on “**Murmured Speech Recognition Using Hidden Markov Model**” in Saveetha Engineering College, Chennai – IEEE 2020 7th International Conference on Smart Structures and Systems (ICSSS-Scopus) on 23rd and 24th July 2020. DOI: 10.1109/ICSSS49621.2020.9202163
- Presented paper on “**Review on Word2Vec Word Embedding Neural Net**” in Kongunadu College of Engineering and Technology, Trichy – IEEE 2020 International Conference on Smart Electronics and Communication (ICOSEC-Scopus) on 10th to 12th Sept. 2020. DOI: 10.1109/ICOSEC49089.2020.9215319
- Presented paper on “**An Efficient Task Scheduling Using GWO-PSO Algorithm in a Cloud Computing Environment**” in Malla Reddy College of Engineering, Secunderbad – Springer 2021 International Conference on Intelligent Computing, Information and Control Systems (ICICICS-Scopus, WoS) on 25th and 26th June 2020. DOI : 10.1007/978-981-15-8443-5_64
- Presented paper on “**Solar cells absorption viewpoint of Mie theory: Experimental analysis of TiO2 doping V/Ce**” in Materials Today: Proceedings 2021 (Scopus) on 3rd July 2021. DOI : 10.1016/j.matpr.2021.07.110

- Presented paper on “**Biogenic silver nanoparticles of antibacterial activities for poly-herbal extracts in novel medicine**” in Materials Today: Proceedings 2021 (**Scopus**) 3rd July 2021. DOI : 10.1016/j.matpr.2021.07.107

Reviewer :

- ❖ Reviewed a paper in **Measurement and Control** Journal from **Sage Publisher. (SCI)**
 1. Local-global cooperative least squares support vector machine and prediction of remaining useful life of rolling bearing – Feb 2022
- ❖ Reviewed a paper in **Ad Hoc & Sensor Wireless Networks** Journal **Old City Publisher. (SCI)**
 1. An innovative framework for balanced cluster-based data aggregation in Wireless Sensor Networks – Oct 2021
- ❖ Reviewed a paper in 4th International Congress on Advances in Mechanical Sciences (**Scopus**) - **Materials Today: Proceedings**
 1. Role Of Machine Learning In Improving Tourism And Education Sector – Nov 2021
- ❖ Reviewed two papers in International Conference on Computational Intelligence and Computing Applications -2021
 1. Virtual Brain: Model-Based Framework For Dependable Eeg Sensing And Actuation In Intelligent Brain Iot System
 2. Improving the Previous Results for the Prediction of Stenosis in Coronary Arteries Using Random Forest with Synthetic Minority Oversampling Technique (SMOTE) Filter and Metaphor Search
- ❖ Reviewed seven papers in 2022 3rd International Conference on Artificial Intelligence and Information Systems (**ICAIS 2022**)
 1. Exactly solvable models for calculating wavelet correlation functions in the theory of non-stationary signals
 2. Sodinokibi intrusion detection based on logs clustering and random forest
 3. Collaborative Decision-Making Models for UAV Operator's Intelligent Decision Support System in Emergencies
 4. Minimum energy capacity for “acceleration-braking” control
 5. JomFacial Recognition Attendance System
 6. Neural Networks for predicting severity of ovarian carcinomas
 7. Approaching an Android Based Application of COVID-19 Tracker and User Case Analysis in Bangladesh
- ❖ Reviewed six papers in 11th International Conference on Electronics, Communications and Networks (**CECNet2021**)
 1. Removal of Cloud and Shadow influence from remotely sensed images through LANDSAT8/OLI/TIRS using Minimum Distance Supervised Classification
 2. Research on Automatic Garage Safety Detection Based on Machine Vision
 3. Research on the application of mathematical thought in algorithm optimization
 4. Data Augmentation Algorithm Based on Generative Antagonism Networks (GAN) Model for Optical
 5. Transmission Networks (OTN)
 6. Missing Data Interpolation with Variational Bayesian Inference for Socio-economic Statistics Applications

- ❖ Reviewed five papers in 3rd International Conference on Machine Learning and Intelligent Systems (MLIS 2021)
 1. Dynamic Emergency Vehicle Path Planning and Traffic Evacuation based on Salp Swarm Algorithm
 2. Medical Knowledge Graph based Reasoning model for Intelligent Disease Diagnosis
 3. Intuitive Contrasting Map for Antonym Embeddings
 4. Prediction of Gestational Diabetes and Hypertension Based on Pregnancy Examination Data
 5. On Design and Implementation of Health Reminder System Based on Apple iOS Platform
- ❖ Reviewed five papers in 3rd International Conference on Machine Learning and Intelligent Systems (MLIS 2021)

Conference Organized :

- ❖ International Virtual Conference On Smart Advanced Material Science & Engineering Applications – 2020 (IVCSAMSEA-2020) on 03-05 December 2020.

Patent Filled :

- ❖ Filled a patent on “**Soft Computing Based NLP Approach For Simple Robotic System Voice Control**” with an application number 202041032901 on 31/07/2020.
- ❖ Filled a patent on “**Virtual Vision System For Visually Impaired People And Method Thereof**” with an application number 202041038731 on 08/09/2020.
- ❖ Filled a patent on “**A Vehicle Tire Control System At Curved Roads Using Intelligent Interfaces And Support Vector Machines**” with an application number 202141025111 on 06/06/2021.
- ❖ Filled a patent on “**Efficient Assessment Of Earthquake Damage Using Deep Learning**” with an application number 202111026776 on 16/06/2021.

Guest Speaker :

- Presented a topic on “**Computer Architecture**” in Dhanalakshmi College of Engineering, Chennai – conducted by Department of Information Technology on 16th June 2014.
- Presented a topic on “**Cryptography and Network Security**” in Dhanalakshmi College of Engineering, Chennai – conducted by Department of Computer Science and Engineering on 21st June 2014.

Programs Attended :

- **Faculty Enrichment Programme** attended in Hindustan University (July 2010)
- Faculty Development Programme on **Advanced Data Structures and Algorithms** in Dhanalakshmi College of Engineering, Chennai. (19th to 21st June 2013)
- Faculty Development Programme on **Computer Networks** in Dhanalakshmi College of Engineering, Chennai. (24th to 26th June 2013)
- Faculty Development Programme on **Database Management Systems** in Dhanalakshmi College of Engineering, Chennai. (09th to 11th Dec 2013)
- Faculty Development Programme on **Web Technology** in Dhanalakshmi College of Engineering, Chennai. (16th to 18th Dec 2013)
- Faculty Development Programme on **Computer Architecture** in Dhanalakshmi College of Engineering, Chennai. (16th to 18th June 2014)
- Faculty Development Programme on **Cryptography and Network Security** in Dhanalakshmi College of Engineering, Chennai. (19th to 21st June 2014)
- Faculty Development Programme on **Data Science And Big Data Analytics** in K. C. G. College of Technology, Chennai organized by ICT Academy. (01st to 05th November 2016)

- Faculty Development Programme on **Virtualization using VSPHERE 6.0** in Dhanalakshmi College of Engineering, Chennai organized by ICT Academy. (12th to 16th June 2017)
- Faculty Development Programme on **Introduction to Mobile APP Development** in Dhanalakshmi College of Engineering, Chennai organized by ICT Academy. (07th to 08th March 2017)
- Attended 3-Day Induction Programme organized by the Academic Staff College, K. L. University, Andhra Pradesh. (03th to 05th June 2018)
- Attended Faculty Skill Enhancement Programme organized by the Academic Staff College, K. L. University, Andhra Pradesh. (13th to 14th June 2018)
- Attended 3-Day Induction Programme organized by the Academic Staff College, K. L. University, Andhra Pradesh. (03th to 05th June 2018)

Workshop Attended :

- Attended Workshop on **“Artificial Intelligence – Human Computer Interaction”** organized by Mukesh Patel School of Technology Management and Engineering, Mumbai – Computer Engineering and Information Technology Department on 14th – 15th October 2011.
- Attended Workshop on **“Data Mining”** organized by Dhanalakshmi College of Engineering, Chennai – Department of Information Technology on 30th November 2013.
- Attended Workshop on **“Linux and Open Source Tools”** organized by Dhanalakshmi College of Engineering, Chennai – Department of Computer Science Engineering on 05th December 2013.
- Attended Workshop on **“UML Tools”** organized by Dhanalakshmi College of Engineering, Chennai – Department of Information Technology on 28th November 2014.
- Attended Workshop on **“LATEX”** organized by Jerusalem College of Engineering, Chennai – Department of Information Technology on 2nd December 2014.
- Attended Workshop on **“Cryptography & Security Lab”** organized by A. V. C. College of Engineering, Mayiladuthurai – Department of Computer Science and Engineering on 30th and 31st May 2016.
- Attended Workshop on **“Ethical Hacking, Big Data Analysis and Cloud Computing”** organized by Top Engineers in Dhanalakshmi College of Engineering, Chennai – Department of Computer Science and Engineering on 16th and 18th December 2016.
- Attended Workshop on **“Research Scholars Symposium on Social Network Analysis”**, S. S. N. College of Engineering, Chennai – Department of Information Technology 4th April 2017.
- Attended Workshop on **“Deep Learning for Computer Vision Applications”** organized by V. I. T. University, Chennai – School of Computing Science and Engineering and OWASP VIT Student Chapter on 4th and 5th November 2017.
- Attended Workshop on **“How to do a Good Ph. D.”** organized by Centre for Aerospace Research & Department of Aerospace Engineering, MIT Campus, Anna University, Chennai on 3rd March 2018.
- Attended Workshop on **“Deep Learning with Tensor Flow”** organized by Knowledge Engineering Research Group, Department of CSE, College of Engineering, K. L. University, Andhra Pradesh on 29th and 30th June 2018.
- Attended Workshop on **“Recent Trends in Unmanned Aircraft Systems and its Applications”** organized by Department of CSE, College of Engineering, K. L. University, Andhra Pradesh on 2nd November 2018.

Area of Interest:

Machine Learning, Deep Learning, Computer Networks, Network Security and Data Structure &

Algorithms.

Skills :

O.S. : Windows 10.0, DOS
Languages : Python, R programming, C, C++, 8085(ALP), JAVA, VB 6.0, VC++ 6.0
Rdbms : SQL
Internet : DHTML, XML, SGML
Type -Writing : First class in English Lower

Reference :

- 1) Name : Dr. R. Rajalakshmi
Designation: Associate Professor
Institute: Vellore Institute of Technology, Chennai
Email: rajalakshmi.r@vit.ac.in
Mobile: 9445212822
- 2) Name : Dr. B. Rajesh Kanna
Designation: Professor
Institute: Vellore Institute of Technology, Chennai
Email: rajeshkanna.b@vit.ac.in
Mobile: 9884223178

Signature