

Sri Sai Ram Engineering College

Department of Computer Science and Engineering

Name & Photo:	Dr. S. SAMUNDESWARI 
Designation	Professor
Qualification:	M.E, Ph.D
Area of Specialization:	Image processing, Machine learning, Big Data Analytics
Year of Experience: :	Teaching : 22.3 yrs Industry: Nil
Publications:	Journal: International : 37 National: Nil Conference: National: 10 International: 26
Research Guidance:	Nil
• General:	<ul style="list-style-type: none">• DC Member• Life Member in International association of Engineers(IAENG)• Life Member in international Society for Research and Development (ISRDR)• IEEE Senior member• ISTE Life Member
• Staff Achievements	<ul style="list-style-type: none">• NAAC Coordinator• MHRD-IIC Coordinator• Time-Table coordinator

	<ul style="list-style-type: none"> • Seminar Coordinator • RedHat Linux Coordinator • Certified in Nptel • Acted as Symposium Coordinator • Acted as Project Coordinator for UG students • Acted as Mini Project Coordinator and organized Mini-Project Exhibition • Secured 100% results in Anna university examinations many times • Published paper in reputed International Journals, Presented papers in various National and International Conferences • Acted as Resource person for various colleges • Mentor for SIH winning team 2023 and SIH finalist 2024 • Attended Innovation, Design and Entrepreneurship Boot Camp 2024 organized by AICTE
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Professional Experience:

S. No	College / Organization	Designation	Period	
			From	To
1.	Muthiah polytechnic, Chidambaram	Lecturer	02.07.93	29.02.96
2.	Sri Ramanujar Engineering College, Chennai	Lecturer	03.07.06	07.12.2009
3.	Sri Sai Ram Engineering College, Chennai	Associate Professor	16.12.2009	Till date

Publications:

Refereed International Journals

1. S.Samundeswari *et al.* RSO-MRSA: Rat swarm optimization based modified Rivest–Shamir–Adleman for secure and efficient healthcare monitoring system. *Wireless Netw* (2024). <https://doi.org/10.1007/s11276-024-03807-0>
2. S. Samundeswari *et al.*, "Automatic Cashew Detection System Using Deep Learning," *2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)*, Chennai, India, 2024, pp. 1-6, doi: 10.1109/IC3IoT60841.2024.10550397.
3. Samundeswari, S., et al. "Supply Chain Management of Dual-Use Drugs using Blockchain." *Procedia Computer Science* 230 (2023): 388-397.
4. S Samundeswari et al. "Emergency People Evacuation System using Crowd Density Detection and Path Finding Algorithm," *2023 2nd International Conference on Applied Artificial Intelligence and*

- Computing (ICAAIC)*, 2023, pp. 795-799, doi: 10.1109/ICAAIC56838.2023.10140581.
5. S Samundeswari et al. "Missing Children Face Identification Using Deep Learning Algorithm," *2023 3rd International Conference on Pervasive Computing and Social Networking (ICPCSN)*, 2023, pp. 27-34, doi: 10.1109/ICPCSN58827.2023.00013
 6. Samundeswari S, Charukeshi S and Shreya S. Analysis of Factors Affecting Safety in Tourism. *International Journal for Modern Trends in Science and Technology* 2022, 9(01), pp. 69-73. <https://doi.org/10.46501/IJMTST0901012>
 7. Samundeswari S, Dharshini T and Harini M. Regulation of Dual-Use Drugs using Blockchain. *International Journal for Modern Trends in Science and Technology* 2022, 9(01), pp. 74-77. <https://doi.org/10.46501/IJMTST0901013>
 8. S Samundeswari et al. "Real Time system for handling customer queries using Twilio, Assembly Ai and NLP," *2022 1st International Conference on Computational Science and Technology (ICCST)*, 2022, pp. 111-115, doi: 10.1109/ICCST55948.2022.10040469.
 9. S Samundeswari et al. "An Application For Effective Usage Of Social Platforms," *2022 1st International Conference on Computational Science and Technology (ICCST)*, 2022, pp. 235-238, doi: 10.1109/ICCST55948.2022.10040392
 10. S Samundeswari et al. "Real-time Crime Detection Using Customized CNN," *2022 1st International Conference on Computational Science and Technology (ICCST)*, 2022, pp. 416-419, doi: 10.1109/ICCST55948.2022.10040379.
 11. S Samundeswari, V Lalitha, V Archana, K Sreshta, "OPTICAL CHARACTER RECOGNITION FOR VISUALLY CHALLENGED PEOPLE WITH SHOPPING CART USING AI", 2022 International Virtual Conference on Power Engineering Computing and Control: Developments in Electric Vehicles and Energy Sector for Sustainable Future (PECCON), 2022
 12. S Samundeswari et al. "Custom written sentiment analysis supported Twitter data", *AIP Conference Proceedings*, Vol.2464 / Issue 1 / 2022
 13. V Lalitha, S Samundeswari, R Roobinee, Lakshme S Swetha, "Decentralized Online Voting System using Blockchain", 2022 International Conference on Applied Artificial Intelligence and Computing (ICAAIC), 1387-1391, 2022
 14. S Samundeswari et al. "NS's Secure Framework for Healthcare", 2022 International Conference on Computer Communication and Informatics, 2022
 15. S. Samundeswari et al. "An Integrated approach for smart object recognition," *2021 4th International Conference on Computing and Communications Technologies (ICCCT)*, Chennai, India, 2021, pp. 356-360, doi: 10.1109/ICCCT53315.2021.9711900.
 16. S. Samundeswari, S.Anbahagan, "Neural Network Based Identification of Facial Abnormalities through Cephalometric Radiography using Ricketts Analysis", *Indian Journal of Natural Sciences* Vol.12 / Issue 70 / February / 2022
 17. S Samundeswari, R Sanath, S Anbahagan, "Gesture And Motion Based Crew Management System In An Airport", *Turkish Online Journal of Qualitative Inquiry (TOJQI)* 6, 6152- 6162, 2021
 18. S.Samundeswari et. al. "A Machine Learning Model for Accurate Cardiopulmonary Resuscitation Chest Compression Feature Extraction", 2021 IEEE International Women in Engineering (WIE) Conference on

19. Samundeswari, S., Jeshoorin, G., Vasanth, M., "A Generic System for Processing Insurance ", *Advances in Parallel Computing*, 2021, 38, pp. 501–505.
20. Lalitha, V., Nithya, M., Samundeswari, S., Srinivasan, S., "Essential Preliminary Processing methods of Hyper Spectral images of crops" *Proceedings of 2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering, WIECON-ECE 2020*, 2020, pp. 468–471, 9398013
21. Subhiksha, S., Prakash, S., Samundeswari, S., Sangeerani Devi, A., "Start-up community using blockchain", *Lecture Notes in Electrical Engineering*, 2020, 659, pp. 11–18.
22. Aishwarya, S., Ramya, S., Subhiksha, S., Samundeswari, S., "Detection of Impersonation in Online Examinations using BlockChain", *ICPECTS 2020 - IEEE 2nd International Conference on Power, Energy, Control and Transmission Systems, Proceedings*, 2020, 9337001.
23. Geetha, G., Samundeswari, S., Saranya, G., Meenakshi, K., Nithya, M., "Plant Leaf Disease Classification and Detection System Using Machine Learning", *Journal of Physics: Conference Series*, 2020, 1712(1), 012012.
24. Lalitha, V., Deepa, A., Nithya, M., Samundeswari, S., "Astute Remedy for Autism developing an Interactive Real Time Application along with a Hardware product to help youngsters with Autism", *Journal of Physics: Conference Series*, 2020, 1712(1), 012038.
25. S. Samundeswari, T. Vimala, S.Subhiksha, "Emergency Evacuation System", *Studies in Indian Place Names*, Vol 40 issue 3 (s1) February 2020.
26. Vimala, T., Samundeswari, S., Ann Roseela, J.," Implementation of Moisture and temperature sensor in green farm using cloud technology, *Journal of Advanced Research in Dynamical and Control Systems*, 2019, 11(4 Special Issue), pp. 2327–2332.
27. Jayaselvi, P., Periasamy, J. K., Priya, M. P., & Samundeswari, S. (2019). A Methodology for Sea Border Intrusion Alert and Black Box System Using IOT. *International Journal of Psychosocial Rehabilitation*, 23(04).
28. S.Samundeswari, G. Muthuram, S.Mohana priya, S.Bragatheeswari, A.Sanjeetha Dharshini," Secured and Transparent Perishable Goods Network Using Blockchain Technology", *International Journal of Engineering Research in Computer Science and Engineering (IJERCSE)*, Vol 6, Issue 7, July 2019.
29. Anbazhagan, S., Samundeswari, S., & Dhakshinamoorthy, S. (2019). Neural Network Based Identification of Skeletal and Dental Abnormalities Using McNamara Cephalometric Analysis. *Journal of the Gujarat Research Society*, 21(17), 2090-2105.
30. T. Vimala, S. Samundeswari,"flame sensor implementation in distinct fields using Cloud Technology", *International Journal of Mechanical and Production Engineering Research and Development* , Vol. 8 (4) 359-367 (2018) (Scopus Indexed).
31. S Samundeswari, V Ramalingam, B Latha and S Palanivel, "Pattern Classification Techniques for the Classification of Cutaneous Manifestations of Systemic Lupus Erythematosus", *Pakistan Journal of Biotechnology*, Vol. 15 (2) 333-337 (2018) (Scopus Indexed).
32. S. Samundeswari, V. Ramalingam, B. Latha, " Computer-aided diagnosis of systemic lupus erythematosus using immunological profile", *Medico-Legal Update*, 2018, 18(1), pp. 525–530.
33. S Samundeswari, V Ramalingam, B Latha and S Palanivel," Prediction of systemic lupus erythematosus based

on cutaneous manifestations using machine learning models”, The Pharma Innovation Journal 2017;6(10):248-251. UGC Approved Journal. UGC journal No.46096

34. S.Samundeswari, V. Ramalingam, B. Latha , S. Palanivel1.”Decision support system for systemic lupus erythematosus using machine learning techniques”. International Journal of Pharmacy & Technology, IJPT| April-2017| Vol. 9 | Issue No.1 | 28437-28446. ISSN: 0975-766X(Scopus Indexed)

Books / Book Chapters:

1. Published a Book “ BIG DATA FOR UNLOCKING UNTAPPED DIGITAL MARKETING OPPORTUNITIES “, Lambert Academic Publishing, 2024
2. Published a Book Chapter titled “Improvised security features increasing Confidentiality and Authentication in Reversible Texture synthesis in Data Hiding ” in Scope of federated Learning in Next Gen Industrial Systems, Immortal Publications,ISBN-978-93-577-445-1, page no:80-87, Dec 2022.
3. Published a Book Chapter titled “Stock Market Prediction using Machine Learning ” in Scope of federated Learning in Next Gen Industrial Systems, Immortal Publications,ISBN-978-93-577-445-1, page no:129-140, Dec 2022.
4. Published a book “Recent trends in Engineering and Technology”ISBN:978- 819-714-989,Sai raj Printers, 2021
5. Published a Book Chapter titled “Assessment And Prioritization Of Business Analytics Projects” in Management Analytics and software Engineering, ESN Publications,ISBN-978-81-950305-5-2, page no:200-205, January 2021.

Patents:

1. Filed a patent titled “CLASSIFICATION OF ATRIAL-FIBRILLATION DISEASE USING MACHINE LEARNING ALGORITHMS” (published)
2. Filed a patent titled “Bias Correction of NWP model Temperature forecasts for cities using Deep Learning” (Published)
3. Filed a patent titled “IOT based Energy Management System in microgrid using LORAWAN”(Published)
4. Filed a patent titled “Minimal Machine Vision Setup For Automobile Part Inspection using Mask Based R-CNN And Digital Microscope” (Published)
5. Cooperative Sensing, Communication and Control of IoT Network using Machine Learning Algorithms(**Granted**)

National and International Conferences :

1. An integrated approach for smart object recognition, IEEE international conference on computing and communication technologies, Sri Sairam Engineering college, 16-17 December, 2021.
2. A Generic System for Processing Insurance, International Conference For Pheonixes On Emerging Current Trends In Engineering And Management at Panimalar Engineering College (26.03.2021 and 27.03.2021).
3. Detection Of Body Fat Percentage And Suggesting Suitable Exercise, National conference on Smart Innovations in Communications and Computing NCSICC-2021, Sri Sairam Engineering College on 24th March 2021.
4. Secure and Efficient Data Transmission in Wireless Sensor Networks with SET-IBS and SET- IBOOS, National

conference on Smart Innovations in Communications and Computing NCSICC- 2021, Sri Sairam Engineering College on 24th March 2021.

5. Essential Preliminary Processing methods of Hyper spectral images of crops, 2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE), 26-27 December, 2020, Bhubaneswar, India.
6. Detection of Impersonation In Online Examinations Using Blockchain , Virtual IEEE International Conference on Power, Energy, Control and Transmission Systems (ICPECTS 2020) organized by dept of EEE , Sri Sairam Engineering College, 10th and 11th December 2020.
7. Plant Leaf Disease Classification and Detection System Using Machine Learning, International Conference on Computational Physics in Emerging Technologies, organized by Srinivas University, Mangaluru, Karnataka on 1st August 2020.
8. Astute Remedy for Autism "Developing an Interactive Real Time Application Along With a Hardware Product to Help Youngsters With Autism, International Conference on Computational Physics in Emerging Technologies, organized by Srinivas University, Mangaluru, Karnataka on 1st August 2020.
9. Gesture And Motion Based Crew Management System In An Airport, AICTE Sponsored Online National Conference for Women on Innovations in Science, Engineering and Technology (NCWISE-2020) on 20th & 21st November 2020 at Stanley College of Engineering and Technology, Hyderabad.
10. Realtime Gesture And Proximity Based Employee Management System, International Conference on Intelligent Systems and Control (ISCO 2020), organized by Karpagam College of Engineering, Coimbatore on 9th and 10th January 2020.
11. Start-Up Community using Blockchain, International Conference on Modelling, Simulation & Intelligent Computing (MoSICom 2020), organized by BITS, PILANI, Dubai Campus, Dubai, UAE on 29th - 31th January 2020.
12. Fabrication Detection Using Blockchain, International conference on Computational Science and Technology ICCST 2020, Sri Sairam Engineering College, 5th & 6th March 2020.
13. Prognosis of Lupus Nephritis and Cutaneous Lupus in Patients with Systemic Lupus Erythematosus Using Cascaded Autoencoders and Convolutional Neural Networks, International conference on Computational Science and Technology ICCST 2020, Sri Sairam Engineering College, 5th & 6th March 2020.
14. A Temporal Input Based Electricity Market Price Forecasting Using ANN, National Conference on Smart Innovations In Communications And Computing (NCSICC'19) on 5th March 2019.
15. Prediction System for Stroke in Day And Night, National Conference On Smart Innovations In Communications And Computing (NCSICC'19) on 5th March 2019.
16. Real Time Perishable Goods Network, National Conference On Smart Innovations In Communications And Computing (NCSICC'19) on 5th March 2019.
17. Disaster Management System using Geofencing, National Conference On Smart Innovations In Communications And Computing (NCSICC'19) on 5th March 2019.
18. Effective Identification of Black Money and Fake Currency using NFC and Android, International Conference on Computational Science and Technology (ICCST'17) on March 9th and 10th 2017 organised by CSE dept at Sri Sairam Engineering College.
19. Improved Security Features Increasing Confidentiality and Authentication in Reversible Texture Synthesis in Data Hiding, International Conference on Computational Science and Technology organised by CSE dept, Sri

Sai Ram Engineering College on 9th and 10th March 2017.

20. Remote Authentication using steganographic Mechanism", National Conference on Computing Communication and Information Technology, 7th April 2016.
21. Implementing one to many data linkage using one class clustering tree, International conference on electrical communication and computing ICECC-2014, 13th & 14th March 2014.
22. Applying clustering technique for implementing one to many data linkage, National Conference on Novel notions in Engineering Communication and Technology (NCONNECT-2014)-7th March 2014 at S.A. Engineering College.
23. Machine Learning technique for facial Growth abnormalities in IEEE Sponsored National Conference in M.Kumaraswamy College of Engineering, Karur, 2009.

List of workshop/ FDP / ISTE-STTP participated:

FDP, WORKSHOP		
Name of the Programme	Organized by	Date
AICTE STTP - Speech and Image Processing using Deep Learning Techniques”	Dept of CSE, Annamalai University.	03.03.2020 to 09.03.2020
ATAL FDP - Big Data Analytics	Siddhartha Institute of Engineering & Technology.	25.01.2021 to 29.01.2021
AICTE STTP - Internet of Things with Block chain Applications and Challenges	Vellalar College of Engineering & Technology.	04.01.2020 to 09.01.2020
AICTE STTP - Medical Image Analysis	V.S.B. Engineering College, Karur	02.11.2020 to 07.11.2020
AICTE STTP - Building Intelligent Applications with Deep Learning using PyTorch	Rajalakshmi Institute of Technology.	05.10.2020 to 10.10.2020
ATAL FDP -Data Science	Rajalakshmi Institute of Technology.	24.08.2020 to 28.08.2020
IETE FDP - New Normal with Disruptive Technologies	Dr.M.G.R. Educational and Research Institute	27.07.2020 to 31.07.2020

Webinar cum Workshop - Data Science using Python	Amrita College of Engineering & Technology, Nagarkoil.	17.06.2020 to 25.06.2020
MHRD - Leadership Talk	Ms. Ashwini Deshpande (Co-Founder & Director ElephantDesign)	06/06/2020.
ATAL FDP –Cyber Security	National Power Training Institute, Neyveli	16-12-2019 to 20-12-2019
AICTE FDP - Smart Perspectives of IoT on 5g Communication - Practical Approach”	Panimalar Engineering College.	08.11.2019 to 21.11.2019
AICTE FDP - Open Source Cyber Security Tools	NITTR, Chandigarh.	18.05.20 to 22.05.20
AICTE FDP - Artificial Intelligence	NITTR, Chandigarh.	25.05.2020 to 29.05.2020
FDP-Neural Networks and CNN	NITTR, Chandigarh.	11.05.2020 to 15.05.2020
AICTE FDP - Internet of Things	NITTR, Chandigarh.	10.04.2020 to 14.04.2020
AICTE FDP - Ethical Hacking	NPTEL	September 2019
workshop - Intellectual Property Rights & Innovations	Dept of Research & Development , Centre for Intellectual Property Rights (CIPR) Anna University.	20/07/2019
FDP - NextGen TechStack	Sri Sairam Engineering College	08/04/19 to 12/04/2019
FDP on Artificial Intelligence, Machine Learning , Cloud Computing and their Applications	Dept of CSE, Valliammai Engineering College	29/11/2018 – 04/12/2018
Workshop on Ideation and Proposal Formulation	PALS, Rural Technology Action Group, IIT Madras	09/11/2018
Train the Trainer program on SSC/Q0923QP-Security Infrastructure Specialist	IT-ITeS SSc NASSCOM	29/10/2018 – 03/11/2018
Workshop on REDHAT (Open source) Technology & industry Adaptation	Department of CSE,Sri Sairam Engineering College	05.12.17
FDP on Data science and Big Data Analytics	ICT ACADEMY (associated With DELL EMC)in Sri Sairam Engineering College	11.9.17 to 15.9.17
Computational Intelligence: Fundamental Theory & Practical Applications	IEEE Computational Society & VIT University,Chennai	2/1/2017 – 6/1/17
FDP on Grid and Cloud Computing	Sri Sai Ram Engineering college	08/09/2016,09/09/2016

Workshop on Mobile Application Development	Sri Sai Ram Engineering College Dept of CSE	17/2/2016 – 20/2/2016
FDP on Cloud computing and Big Data	Department of CSE, Sri Sai Ram Engineering College	8/12/2014 &9/12/2014
FDP on Cloud Computing	Department of IT And TCS at Sri Sai Ram Engineering College	05/05/2014
Network Design – A practical approach	Sri Sai Ram Engineering College	03/10/2013 – 04/10/2013
Workshop on Journal and Thesis writing	Dept of Mechanical Engineering, Sri Sai Ram Engineering College	19/01/2012
SDP on “ Case Tools Environment & Work Benches”	Dept. of MCA, Sri Sai Ram Engineering College	21/12/2011 – 22/12/2011
SDP on “Soft computing with AI”	Dept. of CSE, Sri Sai Ram Institute of Technology	15/09/2011 - 28/09/2011