



# SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution| Accredited with 'A++' Grade by NAAC)

Pulloor, Kariapatti –Taluk. Virudhunagar Dist-626115.



## Department of Computer Science and Engineering

<b>Name</b>	Dr. A. Solairaj				
<b>Date of Birth</b>	04/06/1985				
<b>Unique ID</b>	FD6054				
<b>Educational Qualifications</b>	M.E., Ph.D.,				
<b>Designation</b>	Associate Professor				
<b>Email ID</b>	solairaja@sethu.ac.in				
<b>Alternate Email ID</b>	jayanthsolai@gmail.com				
<b>Experience</b>	Industry	Teaching	Others	Total	
	-	17 Years	-	17 Years	
<b>Date of Joining the Institution</b>	02-01-25				
<b>Area of Specialization</b>	Data mining, Big Data, AI&ML,Data Science				
<b>Courses taught</b>	Data Science,Cloud Computing, Data Mining, Data Warehousing, ,Data Structures, Programming in C				
<b>Research Focus</b>	Data Mining,Big Data,AI&ML,Data Science				
<b>Research guidance (Number of Scholars)</b>	UG:23 PG:1				
<b>Subject Competency</b>	Data Science,Cloud Computing, Data Mining, Data Warehousing, ,Data Structures, Programming in C				
<b>No. of papers published</b>	National Journals	International Journals	Conferences		
	<b>01</b>	<b>09</b>	<b>06</b>		
<b>PG Specialization</b>	M.E (CSE)				
<b>Ph.D. Specialization</b>	Information and Communication Engineering (Data Mining)				
<b>Projects Carried out</b>	<b>Nil</b>				
<b>Patents (Filed &amp; Granted)</b>	<b>Filed : 03</b>				
<b>Technology Transfer</b>	<b>Nil</b>				
<b>No. of Books published with details (Name of the book, Publisher with ISBN, year of publication, etc.)</b>	02				

## Academic Credentials

Level	Degree	Specialization	University	Year of Completion
UG	B.E	CSE	Anna University, Chennai	2006
PG	M.E	CSE	Anna University, Trichy	2010
Ph.D.	I&CE	Data mining	Anna University, Chennai	2017

## Details of Journal Publication:

1. **A. Solairaj**, 2026, “ Pest Classification using Hybrid Deep Learning with Optimal Feature Selection Technique”, Paper published in the international Journal of Ad Hoc and Ubiquitous Computing, DOI:10.1504/IJAHUC.2026.10076531, Inder Science publishers, February 2026.
2. **A. Solairaj**, 2026, “Big Data Classification Using Hybrid Squeeze-EfficientNet With Feature Fusion in Spark Architecture”, Paper published in the Journal of Transactions on Emerging Telecommunications Technologies, <https://doi.org/10.1002/ett.70347>, Wiley, January 2026.
3. **A. Solairaj**, 2026, “Optimized eyeblink artifact removal in EEG signal using attention-based spiking neural networks”, Paper published in the Journal of Biomedical Signal Processing and Control, <https://doi.org/10.1016/j.bspc.2026.109571>, Elsevier, January 2026.
4. **A. Solairaj**, 2025, “High-Performance Crop Recommendation System Using Predefined-Time Adaptive Neural Networks with Binary Waterwheel Plant Optimization Algorithm”, Paper published in the Journal of Communications in Soil Science and Plant Analysis , <https://doi.org/10.1080/00103624.2025.2593958>, Taylor & Francis ,December 2025.
5. **A.Solairaj** , “SeCo2: Secure Cognitive Semantic Communication in 6G-IoT Networks Using Key-Policy Attribute-Based Encryption and Elliptic Curve Cryptography” , Paperpublished in the Journal of Radio engineering,Volume 34, Issue 2. 1 June 2025.
6. **A.Solairaj** , “ Smart health system with deep kronecker network-based key generation for privacy-aware aggregate authentication and access control in IoT” , Paper published in the Journal of Combinatorial Optimization, Springer Nature, Netherland ,Volume 49,article number 81,.25 May 2025.
7. **A. Solairaj**, 2023,” Enhanced Elman spike neural Network based sentiment analysis online product recommendation”, Applied Soft Computing, Elsevier, vol.132, DOI: 10.1016/j.asoc.2022.109789.
8. **A. Solairaj**, 2023, “Smart Contract-Based Advanced Financial Security System: A Literature Review”, IEEE Xplore, ISBN:979-8-3503-0571-5.

9. **A. Solairaj**, 2023, "Alzheimer's disease detection using Multi Atlas segmentation based on Temporal group sparse regression", IEEE Xplore, ISBN:979-8-3503-1707-7
10. **A. Solairaj**, 2022, "Block chain fostered cycle-consistent generative adversarial network framework espoused intrusion detection for protecting IoT network", Emerging Telecommunications Technology, Wiley, vol.33, issue.11, DOI:10.1002/ett.4578.
11. **A. Solairaj**, 2019, "TRI-SEC for Files using AWS", Journal of Applied Science and Computations, ISSN NO: 1076-5131, pp.91-96, Volume-6-Issue-3, 2019.  
DOI: 16.10089.IASC.2018.V6I4.453459.1890010336.
12. **A. Solairaj**, 2019, "A Cognitive Privy Humanoid Robot", International Journal of Recent Trends in Engineering & Research, ISSN NO : 2455-1457, pp:409-413.
13. **A. Solairaj**, 2019, "Finding Nearest Location Using Data Mining And Map reduce", International Journal of Recent Trends in Engineering & Research, ISSN NO : 2455-1457, pp:457-461.
14. **A. Solairaj**, 2019, "IoT based Online Referendum using Trusted Endorsement System", International Journal of Recent Trends in Engineering & Research, ISSN NO : 2455-1457, pp:462-467
15. **A. Solairaj**, 2016, "Key loggers Software Detection Techniques", IEEE Xplore, ISBN: 978-1-4673-7808-6.
16. **A. Solairaj**, 2016, "Enhancing Classifiers Performance using Data Quality Checking", Asian Journal of Research in Social Sciences and Humanities 6(5), pp. 845-858, 2016.
17. **A. Solairaj**, 2015, "Identification of key loggers in mobile devices using Support vector machine", International Journal of Applied Engineering Research. ISSN 0973-4562. Vol.10 No.55.

**Details of Conference attended:**

- Presented a Paper entitled "**Smart Contract-Based Based Advanced Financial Security System: A Literature Review**" in the 2023 IEEE International Conference on Research Methodologies in Knowledge Management, Artificial Intelligence and Telecommunication Engineering Organized by the Department of Computer Science and Engineering, R.M.K. Engineering College, Chennai, India during 1st and 2nd November, 2023
- Presented a Paper entitled "**Alzheimer's disease detection using Multi Atlas Segmentation based on Temporal group sparse regression**" in the 2023 IEEE International Conference on New Frontiers in Communication, Automation, Management and Security Organized by SoCSE & IS, Presidency University, Bengaluru, India during on 27th & 28th October 2023.
- Presented a Paper entitled "**Analysis of the Market Capability and Forecast of the Presence of Drugs using Neural Networks**" in International Conference on Recent Trends in Data Science and its Applications (ICRTDA'23) held on 30-31 March, 2023 Organized by the SRM Institute of Science & Technology, Chennai.

- Presented a Paper entitled “**Smart Contract-Based Advanced Financial Security System: A Literature Review**” in the 2023 IEEE International Conference on Research Methodologies in Knowledge Management, Artificial Intelligence and Telecommunication Engineering held on 1-2 November 2023, Organized by the R.M.K. Engineering College, Chennai.
- Presented a Paper entitled “**Review on Healthcare Development using AI & ML**” in International Conference (RACS’23) held on 7- 8 April 2023, Organized by the JCT College of Engineering & Technology, Coimbatore.
- Presented a Paper entitled “**Cardamom Plant Disease Prediction**” in International Conference on New Scientific Creations in Science and Technology (ICNSCET’23) held on 16-17 June 2023, Organized by Nadar Saraswathi College of Engineering and Technology, Theni.
- Presented a Paper entitled “**Geo-Tagged Information for Location Inference**” in International Conference on New Scientific Creations in Science and Technology (ICNSCET’20) held on 14 March 2020, Organized by Nadar Saraswathi College of Engineering and Technology, Theni.
- Presented a paper titled “**TRI-SEC for Files using AWS**” in the International Conference on Recent Trends in Science, Engineering and Technology (ICRTSET ‘2019) held on 09 March 2019 at CK College of Engineering & Technology, Cuddalore.
- Presented a paper titled “**Conciseness Agriculture Plenitude Detection Vicissitude Eclectic Transformation Model**” in International Conference on Innovation in Engineering, science and Technology (ICIEST-2019) on 15-16 February 2019 held at Kalasalingam Institute of Technology, Srivilliputtur.
- Presented a paper titled “**Student Performance Analysis using Classification Algorithm**” in National Conference on Emerging Trends in Engineering Science and Management (ETESM-2018) on 16 March 2018 held at Kurinji College of Engineering and Technology, Trichy.
- Presented a paper titled “**Data Quality Checking for Effective Data Classification**” in International Conference on Science, Engineering and Computer Technology (IconSect-2016) held on 30 April 2016 at Vedavyasa Institute of Technology, Malappuram, Kerala.
- Presented a paper titled “**Identification of Key Loggers in Mobile Devices using SVM**” in National Conference on Recent Innovations in Computer and Communication (NCRICC 2015) held on 27 March 2015 at Syed Ammal Engineering College, Ramanathapuram.
- Presented a paper titled “**Hybrid Interactive Cache Placement in Multihop Wireless Network**” in National Conference on Advanced Computing Sponsored in part by The Council of Scientific and Industrial Research held on 06 March 2010 at CSI College of Engineering, Ketti, The Nilgiris.

- Presented a paper titled “**Hybrid Interactive Cache Placement in Multihop Wireless Network**” in National Conference on Advanced Computing Technology (NCACT’10) held on 19 February 2010 at Cauvery College of Engineering & Technology, Trichy.

**Details of Book Chapter and Books Published:**

- 1. Book Series:** Algorithms for Intelligent Systems.

**Chapter:** 2C-CNN-LSTM: Two-Channel Convolutional Neural Network-Long Short-Term Memory Deep Learning for Categorization of Autism Using EEG Data (Online ISBN: 978-981-99-3485-0).

**Publication:** Springer Nature Singapore Publications.

**DOI:** 10.1007/978-981-99-3485-0\_51

- 2. Book Series:** Recent Trends in Data Science and its Applications.

**Article:** Analysis of the Market Capability and Forecast of the Presence of Drugs using Neural Networks (Online ISBN: 978-981-99-3485-0).

**Publication:** River Publishers.

**DOI:** <https://doi.org/10.13052/rp-9788770040723.205>

**E-ISBN:** 9788770040723.

**Details of Patents Filed :**

S.No.	Patents Name	Application No.	Publication Date
1.	<b>System and Method for AI-Enabled Agri-Chatbot Integration with IoT Devices for Crop Delivery in Agriculture</b>	202341063008	Oct06, 2023
2.	<b>Wireless Mobile Charging through coin insertion</b>	202241040820	Jul 27, 2022
3.	<b>Design and Implementation of Smart Human Recognition and Counting System Based on Deep Learning and Computer Vision.</b>	202141044765	Oct 15, 2021

**Expert Lecture Delivered:**

1. Delivered a Guest Lecture as Resource Person on “ Cloud & Cyber Security : Protecting Your Digital Life” on 05 August 2025 at S. Vellaichamy Nadar Arts and Science College , Nagamalai, Madurai.

2. Delivered a Guest Lecture as Resource Person on “ Machine Learning Techniques” on 22 January 2024 at Mother Teresa Women’s University, Kodaikanal.

3. Delivered a Guest Lecture as Resource Person on “ Gate 2025 Examination Awareness Program” on 04 September 2024 at Nadar Saraswathi College of Engineering and Technology, Kodaikanal.