U. JAYACHANDIRAN

Assistant Professor-III | M.E. (Communication Systems)

M.I.E.T.E,IEEE Member | LinkedIn: jayachandiran-udayakumar-647ab0216

PROFESSIONAL SUMMARY

Dedicated and experienced Assistant Professor with over 14 years of teaching experience across Electronics & Communication Engineering and Artificial Intelligence & Data Science departments. Currently serving at Sri Sai Ram Engineering College, Chennai. Specializes in VLSI Design, IoT, Embedded Systems, Quantum Computing, Machine Learning, and Signal Processing. Active researcher with 8+ publications across national and international conferences and journals, including work on Quantum Error Estimation, KAN networks, and AI-driven systems. Enthusiastic mentor with hands-on experience in organizing workshops, Faculty Development Programs, and guiding award-winning student teams.

ACADEMIC PROFILE

Designation	Assistant Professor-III
Date of Joining	16 June 2016
Qualification	M.E. (Communication Systems)
Specialization	Communication Systems
Teaching Experience	14 Years (2012 – Present)
Industrial Experience	Nil
Professional Membership	Member of the Institution of Electronics and Telecommunication Engineers (M.I.E.T.E)

AREAS OF EXPERTISE

Communication Systems & VLSI Design	IoT and Embedded Systems
Cryptography & Steganography	Machine Learning & Data Visualization
Blockchain Technologies	Ethical Hacking & Network Security
Python & Cloud Computing	Robotic System Design

WORK EXPERIENCE

Period	Designation	Institution	Department
2022 – Present	Assistant Professor	Sri Sai Ram Engineering College, Chennai	AI & Data Science
2016 – 2022	Assistant Professor	Sri Sai Ram Engineering College, Chennai	ECE

| 2014 – 2016 | Assistant Professor | Karpaga Vinayaga College of Engineering and Technology | ECE |
| 2012 – 2014 | Assistant Professor | Sri Venkateswaraa College of Technology | ECE |

EDUCATION

S.No	Degree / Programme	Institution	Period	Grade
1	Diploma, Quantum Computing	The Coding School	Nov 2020 – Oct 2021	A+
2	Diploma, Artificial Intelligence and Data Science	Indian Institute of Technology Hyderabad (IIT-H)	Sep 2020 – Jun 2021	A+
3	Master of Engineering (M.E.), Electrical, Electronics & Communications Engineering	Anna University, Chennai	May 2010 – Jul 2012	—
4	Bachelor of Engineering (B.E.), Electrical, Electronics & Communications Engineering	Anna University, Chennai	Jul 2006 – May 2010	A

CONSULTANCY

1.Acted as the Consultant for the Azentio Software Private Limited on the technical expertise needed on the Advanced Software development tools and Methodologies - Rs 20,000/- between 20th Mar 2023 – 23th Mar 2023.

2. Acting as an Independent Researcher for Classiq Technologies LLC for Incorporating NLP to end to end development, Optimization and Deployment of Quantum Algorithms - March 2025 - till Date - USD 4000)

PUBLICATIONS

Journal Publications

S.No	Paper Title	Journal / Publisher	Authors	Year
1	Design of High Throughput and Area Efficient AES Using Composite S-Box and Optimized Mix-Column	Journal of Innovative Research and Solutions	S. Sasirekha, U. Jayachandiran	2015
2	Research Path Identification and Mobility of Vehicle Using Satellite Imagery	Journal of Data Mining Techniques and Applications	U. Jayachandiran	2016
3	Elephant Warning System Using IoT	International Journal of Research and Analytical Reviews (IJRAR)	U. Jayachandiran	2019
4	Audio File Hiding Using Steganography	International Journal of Research and Analytical Reviews (IJRAR)	U. Jayachandiran	2019
5	Medical Chatbot Enhanced with RAG Based Conversational Abilities	Data Mining and Knowledge Discovery	Jayachandiran, Janani	2023

S.No	Paper Title		Authors	Year
			Giridharan	
6	Nested Architecture for Assisted Diagnosis and Evaluation of Cellular Bio-Markers and Tumor Infiltrating Lymphocytes	arXiv.org (Preprint)	U. Jayachandiran, S S Rishi Kanthan, S. Vishal et al.	—
7	Kolmogorov-Arnold Networks (KANs): Towards Interpretable and Efficient Function Approximation Beyond MLPs	Research Square (Preprint) | DOI: 10.21203/rs.3.rs-8074560/v1	Janani Giridharan, U. Jayachandiran (SRM IST, Chennai)	Nov 2025
8	Designing Optimized Finite Impulse Response Filters for Quantum Error Estimation: A Comprehensive Mathematical Framework and Algorithmic Approach	IJET, Volume 11, Issue 5 (September–October 2025) | ISSN: 2395-1303	U. Jayachandiran et al.	Sep–Oct 2025

Conference Publications

S.No	Paper Title	Conference	Authors	Year
1	Smart Glasses for Visually Impaired People with Facial Recognition	International Conference on Communication, Computing and Internet of Things (IC3IoT)	YRS Kumar, T. Nivethetha, P. Priyadharshini, U. Jayachandiran	2022
2	Improving Agricultural Yield by Optimizing Crop Selection Through Bagging and Boosting Models, Leveraging Soil Composition and Environmental Parameters	ICDSAAI 2023	U. Jayachandiran, G. Saravanan et al.	2023
3	Automated Vehicular System Using Driverless Car	National Conference on ECE	U. Jayachandiran, P. Gnanasoundari	—
4	International Conference on Innovative Research and Solutions	Bengaluru	U. Jayachandiran et al.	2015
5	Emerging Trends in Electronics, Instrumentation, Automation and Control	Karpagam College of Engineering	U. Jayachandiran et al.	2016
6	International Conference on Advanced Research in Engineering and Applied Sciences	S.R.I College of Engineering and Technology	U. Jayachandiran et al.	2016

WORKSHOPS ATTENDED

S.No	Title	Venue	Month/Year
1	Embedded Systems	Sri Venkateswaraa College of Technology	Sep 2013

S.No	Title	Venue	Date
2	IPR Awareness and Research Methodologies	Karpaga Vinayaga College of Engineering and Technology	May 2016
3	Research Prospective – An Insight to Proposals and Patents	Velammal Engineering College	Jan 2016
4	Workshop on OrCAD PSpice	B.S. Abdur Rahman University	Jun 2019
5	Rapid Prototyping IoT and Embedded Systems Design	Sri Sairam Engineering College	Nov 2019
6	Network Infrastructure Specialist	NASSCOM	Oct 2018
7	Python Programming	Udemy	Feb 2019
8	Blockchain Technologies	Udemy	Feb 2019
9	Cloud Security and Blockchain Technology	Sri Sairam Engineering College	Apr 2019
10	Robotic System Design	Sri Sairam Engineering College	Apr 2019
11	Machine Learning	Udemy	Nov 2019

FACULTY DEVELOPMENT PROGRAMS (FDPs) ATTENDED

S.No	Title	Venue	Date
1	FDP on VLSI Design	Karpaga Vinayaga College of Engineering and Technology	Dec 2015
2	FDP on Machine Learning and Data Visualization Using R and SQL (Five-Day, Conducted by Candidate)	—	2019
3	Additional FDPs attended (Total: 6)	Various Institutions	—

CERTIFICATIONS & CREDENTIALS

S.No	Certification Title	Issuing Organization	Issued	Domain
1	Time Series Analysis	Hasso Plattner Institute	Oct 2025	Data Science
2	Module 5: Quantum Algorithms for Nonlinear Problems	The Washington Institute for STEM, Entrepreneurship and Research	Aug 2025	Quantum
3	PennyLane LCU Challenge – Womanium & Wiser Quantum Program 2025	PennyLane	Jul 2025	Quantum
4	Quantum Computing (QML)	CDAC India	May 2025	Quantum
5	Pre Security Certificate	TryHackMe	May 2025	Security
6	Sustainability in the Digital Age: Environmental Impacts of AI Systems	Hasso Plattner Institute	Mar 2025	AI / Green Tech

7	Physical Design (Static Timing Analysis)	ChipEdge	Jan 2025	VLSI
8	Introduction to Quantum Computing with Qiskit (Deutsch-Jozsa & Grover's Algorithms)	IBM	Jan 2025	Quantum
9	Quantum Computing for Natural Sciences (with IBM Quantum)	Hasso Plattner Institute	Dec 2024	Quantum
10	Ask Questions to Make Data-Driven Decisions	Google	Dec 2024	Data Analytics
11	Statistics for Business Analytics	Udemy Business	Sep 2024	Statistics
12	Exploratory Data Analysis for Machine Learning	IBM	Aug 2024	ML / AI
13	Machine Learning with Python	IBM	Jul 2024	ML / AI
14	Machine Learning Scientist with Python	DataCamp	Jan 2024	ML / AI
15	Associate Data Scientist in R	DataCamp	Apr 2024	Data Science
16	Statistician with R	DataCamp	May 2023	Statistics

ADDITIONAL ACHIEVEMENTS & CONTRIBUTIONS

- Conducted a One-Day Workshop on Ethical Hacking Using Kali Linux (2017)
- Organized and conducted a Five-Day FDP on Machine Learning and Data Visualization Using R and SQL (2019)
- Guided student team 'HACKERNAUTS' in Smart India Hackathon 2019 – Won First Prize
- Conducted a One Day AI Conclave Event on Open Source Data Analysis - 2025