

Dr. UDAYAKUMAR RAMANATHAN

An established professional with over 23 years of overall experience, with over 20 years of academic experience; targeting challenging assignments in Deanship/Teaching/ Academic Coordination/ Training & Development / Project Management; targeting assignments with an organisation of repute, preferably in the Education industry. rsukumar2007@gmail.com'

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Profile Summary

- ❖ A dedicated, resourceful, and innovative instructor offering experience in **Strategic Planning, General Administration, Educational Planning, Teaching and Student Relations**
- ❖ Strive to help students turn marginal grades into good grades. Support colleagues and the administration in fostering intellectual growth by creating an environment of mutual respect and open communication.
- ❖ Supervised **operational planning and development**, and directed day-to-day academic and associated operations of the University.
- ❖ Successfully published **over 286+ articles in SCI, ESCI, Scopus, and WOS-indexed** journals, showcasing expertise in research and publication.
- ❖ **Scopus Citation 3471-h-index 32, Google Scholar Citation 6181-h-index 44,i10 index 117.**
- ❖ Demonstrated proficiency in **Web Technologies, Administration, Teaching, and Research**, contributing to the growth and development of academic institutions.
- ❖ Highly skilled in providing leadership for developing, implementing, and evaluating comprehensive educational programs. Proficient in leading, managing & monitoring the development of core curriculum areas and ensuring that all pupils are encouraged to develop their full potential.
- ❖ Expertise in providing an educational atmosphere where students can fulfil their potential for intellectual, emotional, physical, spiritual, and psychological growth.
- ❖ Established MOUS and campus connect programs as a bridge between industry and institutions.
- ❖ Skills in bringing about a challenging & innovative teaching/learning atmosphere that empowers the active learner with a high-quality experience through a comprehensive network of student support & guidance services.
- ❖ Proficient in **facilitating/coaching students** by using **interactive discussions** & hands-on approach to help students learn and apply concepts in subjects.
- ❖ Efficient organiser, motivator, and a decisive leader with skills in motivating students to excel & win.



Core Competencies

Strategic Teaching & Tutoring



Vision & Leadership



Student Relations



Deanship / Academic Head



Educational Assessment



Training & Development



Curriculum Design & Development



Classroom Presentations



Team Building & Leadership



Soft Skills

- Negotiation & Conflict Management
- Visionary and Decision Making
- Team Building & Interpersonal Skills
- High Business Ethics & Trustworthy

Education & Professional Qualifications

- ❖ **2011:** PhD in Computer Applications from Bharath University, Chennai
Thesis Topic: "Object-Oriented Pattern Through Static Code Analysis"
- ❖ **2004:** M.Phil. in Computer Science from Bharathidasan University, Tiruchirappalli
Thesis Topic: "Flexible Consistency Checking"
- ❖ **2003:** M.S. in Information Technology & Management from A.V.C. College of Engineering, Manampandal, Tamil Nadu, India.
- ❖ **2001:** B.Sc. in Physics from A.V.C. College, Mayiladuthurai.

Since July 2024, Kalinga University, Raipur, Chhattisgarh, as Director of IPR

Feb 2023 to July 2024 Kalinga University, Raipur, Chhattisgarh as Dean (Computer Science Engineering & IT)

Jul'05 to Feb 23 Bharath Institute of Higher Education And Research as Professor in the Department of IT

Jun'03 to Jun'05: A.R.C. Visvanathan College, Mayiladuthurai as Lecturer in Information Technology & Computer Science

Key Result Areas:

- ❖ Worked as the Editor-in-Chief for Taylor & Francis International Conferences 2025
- ❖ Re-structuring of Syllabus: Used Outcome-based Education- for subjects like Computer Networks, Principles of Compiler Design, Principles of Management, Information Security and Cyber, Laws, Visual Programming, Multimedia Systems, C# and .Net Framework, Software Engineering, Object Oriented Analysis & Design, Client Server Computing, Management Information Systems, Software Project Mgmt., Mobile Computing, Programming in Java, Principles of Compiler Design, Network Design Security, Web Technology, High-Performance Networks, Grid Computing, Data Warehousing & Data Mining, Artificial Intelligence & Expert Web Technology Systems
- ❖ Conducted and directed a sequence of meetings to improve the result analysis of various courses in the BE, B. Tech, MTech, B.Sc., M.Sc, and Ph.D. Programs adopted strategies to improve student placement and upgraded laboratories using cutting-edge technologies from various industries.
- ❖ Driving the development & implementation of objectives for curriculum and instructional evaluation; assuring continuous study and revision of curriculum guides and courses of study
- ❖ Promoting effective communications & interpersonal relations among staff, parents, students, and community
- ❖ Implement instructional activities that contribute to a climate where students are actively engaged in meaningful learning experiences; enforce instructional methods to meet the needs of students with varying needs.
- ❖ Chairing faculty meetings; identifying improvement areas, planning for shaping the institution's image.
- ❖ Developing and updating course syllabi as per the latest requirements; monitoring & evaluating the conduct of university exams & Grade Assignments
- ❖ Reviewing the preset educational goals, objectives and classroom instructional programmes, as well as establishing academic and other performance objectives
- ❖ Reporting to parents on students' progress; selecting teaching aids and materials, efficient methods for discussions/demonstration projects
- ❖ Inviting faculty and organisations for pre-placement preparation of the students for aptitude, group discussion, and assessment
- ❖ Spearheading academic and administrative functions, ensuring adherence to the highest standards of education and research while fostering a culture of innovation and excellence.
- ❖ Providing strategic leadership and guidance to faculty members, promoting their professional growth and development, and overseeing curriculum alignment with industry trends and academic standards
- ❖ Implementing quality assurance measures, leading to improved accreditation ratings, and collaborating with external stakeholders to enhance the university's reputation and establish strategic partnerships.
- ❖ Leading the development and implementation of academic policies and procedures, fostering a conducive learning environment for students, and managing faculty recruitment, training, and performance evaluation processes
- ❖ Driving research initiatives, encouraging faculty members to publish in reputed journals, and representing the university at conferences, seminars, and other academic forums.

Publications

- ❖ R. Udayakumar et al., Energy-Efficient Framework Clustering and Routing in WSN Using Federated Deep Q-Network with Improved Fossa Optimisation Algorithm. *Journal of Machine and Computing* V-5, I-2, PP:1216-1235, 2025.
- ❖ R. Udayakumar et al., Traffic Offloading Strategies Using Opportunistic Wireless Networks. *Journal of Internet Services and Information Security (JISIS)*, V-15, I-3 pp. 230-244,2025
- ❖ R. Udayakumar et al., A System Dynamics Model for Water Quality Management in Recirculating Aquaculture Systems (Ras). *Natural and Engineering Sciences- 10 I-2:PP 434-446*, 2025
- ❖ R. Udayakumar et al., Forecasting Disease Outbreaks in Shrimp Aquaculture Using LSTM Deep Learning Models. *Natural and Engineering Sciences- V- 10, I-3:PP- 371-381*.2025.
- ❖ R. Udayakumar et al., Context-Aware Query Interpretation in Legal Information Systems, *Indian Journal of Information Sources and Services*. V-15, I-3, pp. 122-130.2025.
- ❖ R. Udayakumar et al., Smart Surveillance and Security Systems in Library Information Management. *Indian Journal of Information Sources and Services*. V-15, I-4,pp-247-257.2025.
- ❖ R. Udayakumar et al., Development of a Multiscale Computational Framework for Modelling Electromagnetic Wave Propagation in Heterogeneous Media. *National Journal of Antennas and Propagation*, V- 7, I- 2, pp 224–233. 2025.
- ❖ R. Udayakumar et al., Application of autonomous underwater vehicles (AUVs) for monitoring marine biodiversity hotspots. *International Journal of Aquatic Research and Environmental Studies*.V-5,I-s1, pp 112-131, 2025.
- ❖ R. Udayakumar et al., A System Dynamics Model for Water Quality Management in Recirculating Aquaculture Systems (Ras).*Natural and Engineering Sciences*.V-10,I-2,pp-434-446.
- ❖ R. Udayakumar et al., Mobile Internet Access Optimisation for High-Speed Rail Systems.*Journal of Internet Services and Information Security*.v-15, I-2,pp-845-857,2025.
- ❖ R. Udayakumar et al., Energy-Efficient Framework Clustering and Routing in WSN Using Federated Deep Q-Network with Improved Fossa Optimisation Algorithm. *Journal of Machine and Computing* V-5, I-2, PP:1216-1235, 2025.
- ❖ R. Udayakumar et al., Modernising Smart Homes into Cognitive Residences, 2024. *International Conference on Communication, Computing and Energy Efficient Technologies (I3CEET)*
- ❖ R. Udayakumar et al., Distributed WLAN Bands for 6G: Fundamentals and Technologies, *International Conference on Communication, Computing and Energy Efficient Technologies (I3CEET)*
- ❖ R. Udayakumar et al., Machine Learning in K-12 Educational Settings, *International Conference on Communication, Computing and Energy Efficient Technologies (I3CEET)*
- ❖ R. Udayakumar et al., Strengthening Mobile Cloud Facilities: Techniques and Prospective Perspectives, *International Conference on Communication, Computing and Energy Efficient Technologies (I3CEET)*
- ❖ R. Udayakumar et al., Boosting Cloud Connectivity and Effectiveness for Energy Conservation, *International Conference on Communication, Computing and Energy Efficient Technologies (I3CEET)*R. Udayakumar et al., Prediction of Air Pollution Utilising Adaptive Network Fuzzy Inference System with the Aid of Genetic Algorithm, *Natural and Engineering Sciences*, V-9, I-1, PP:46-56, 2024.

- ❖ R. Udayakumar et al., An Efficient Intrusion Detection Solution for Cloud Computing Environments Using Integrated Machine Learning Methodologies, *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications*, V-15, I-2, PP:14-26, 2024.
- ❖ R. Udayakumar et al., Federated Learning with Homomorphic Encryption for Ensuring Privacy in Medical Data, *Indian Journal of Information Sources and Services*, V-14, I-2, PP:17-23, 2024.
- ❖ R. Udayakumar et al. Prediction of Air Pollution Utilising an Adaptive Network Fuzzy Inference System with the Aid of Genetic Algorithm, *Natural and Engineering Sciences*, V-9, I-1, PP:46-56, 2024.
- ❖ R. Udayakumar et al., Machine learning for public wellness: optimising hygiene practices and pollution monitoring in smart cities, *Gigiena I Sanitariya*, V-103, I-3, PP:216-222, 2024.
- ❖ R. Udayakumar et al. Anomaly Detection for Internet of Things Security Attacks Based on Recent Optimal Federated Deep Learning Model, *Journal of Internet Services and Information Security (JISIS)*, volume: 13, number: 3 (August), pp. 104-121.2023
- ❖ R. Udayakumar et al, Assessing Learning Behaviours Using Gaussian Hybrid Fuzzy Clustering (GHFC) in Special Education Classrooms, *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (Jowua)*, volume: 14, number: 1 (March), pp. 118-125. 2023
- ❖ R. Udayakumar et al., Real-time Migration Risk Analysis Model for Improved Immigrant Development Using Psychological Factors, *Migration Letters*, July 2023 Volume: 20, No: 4, pp. 33 - 42 2023.
- ❖ R. Udayakumar et al. Improved PARTICLE SWARM OPTIMISATION WITH DEEP LEARNING BASED MUNICIPAL SOLID WASTE MANAGEMENT IN SMART CITIES, *Rev. Gest. Soc. Ambient. | Miami | v.17.n.4 | p.1-20 | e03561 | 2023.*
- ❖ R. Udayakumar et al User Activity Analysis Via Network Traffic Using DNN and Optimised Federated Learning based Privacy Preserving Method in Mobile Wireless Networks, *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (Jowua)*, volume: 14, number: 2 (June), pp. 66-81. D,2023
- ❖ R. Udayakumar et al Lecture Notes in Networks and Systems. 6th International Conference on Information and Communication Technology for Competitive Strategies, ICTCS. V- 401, pp 677 – 691- 2023.
- ❖ R. Udayakumar et al. "Privacy and Utility-Assisted Data Protection Strategy for Secure Data Sharing and Retrieval in Cloud System" *Information Security Journal: A Global Perspective* V –31, I – 4, PP – 451 – 465, 2022
- ❖ R. Udayakumar et al. "An Effective Approach for Detecting Diabetes using Deep Learning Techniques based on Convolutional LSTM Networks" (*IJACSA*) *International Journal of Advanced Computer Science and Applications*, V- 12, I - 4, PP- 519-525, 2021
- ❖ R. Udayakumar et al, "Cardi Vascular Heart Disease Classification Using Machine Learning and Neuro-Fuzzy Models", *Advances in Dynamical Systems and Applications (ADSA)*. V - 16, I – 2, pp. 987-1005, 2021.
- ❖ R. Udayakumar et al "AN ENHANCED NAÏVE BAYES CLASSIFICATION ALGORITHM TO PREDICT TYPE II DIABETES" *Journal of Engineering Science and Technology* V - 16, I-4, PP -2927 – 2937, 2021
- ❖ R. Udayakumar et al "Diabetes Classification using an Expert Neuro-fuzzy Feature Extraction Model" (*IJACSA*) *International Journal of Advanced Computer Science and Applications*, V-12, I-8, PP - 368-374,2021.
- ❖ R. Udayakumar et al. "A Bibliometric Analysis of Authentication based Access Control in Cloud using Blockchain" *Library Philosophy and Practice (e-journal)* (2021).

Professional Affiliation

- ❖ Life Member in CSI- LM I 1174972
- ❖ Life Member in ISTE – LM 91084.
- ❖ Life Member in ACM -LM 0988340

Patent Filed

- ❖ Title of The Invention: Multiple Lane Departure Warning System for Multiple Road Scenarios
- ❖ Title of The Invention: An Energy-Efficient Routing Protocol to Eradicate Spoofing In Mobile Adhoc Networks
- ❖ An Enhanced Machine Learning and Deep Learning Model To Predict Type II Diabetes And Cardiovascular Heart Disease
- ❖ Blockchain-Based Access Control and Privacy Assisted Mechanism for Secured Data Sharing and Protection in Decentralized Cloud System
- ❖ De Blend IPv7 Beginning Multi-Processors in Idleness
- ❖ Analysis and Study on Data mining Methodologies In Personalized Learning
- ❖ A study on Distillation Fiber-Optic Cables and Journaling Dossier system
- ❖ The Upshot Of Omniscient Strategies on Steganography
- ❖ Blood Pressure Monitoring and Analysis As Android Application-A study.

Reviewer

- ❖ International Journal of Electrical Power and Energy System (Elsevier)
- ❖ Advances in Science, Technology and Engineering System Journal (WoS)
- ❖ Information Sciences (Elsevier)
- ❖ Technological Forecasting & Social Change (EVISE)
- ❖ Computer Networks
- ❖ Computer & Security
- ❖ Computer Standards and Interfaces
- ❖ Astronomy & Computing
- ❖ Applied Soft Computing
- ❖ Computer Communication

Personal Details

Date of Birth: 7th July 1977 | **Languages Known:** English, & Tamil | **Address:** New .No. 54, Plot No.164, Flat No. S1, Sri Maruthi Nagar, Chennai, Tamilnadu, India- 600126.
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