



Dayananda Sagar Academy of Technology & Management

(Autonomous Institute under VTU)

Affiliated to **VTU**
Approved by **AICTE**
Accredited by **NAAC** with **A+** Grade
6 Programs Accredited by **NBA**
(CSE, ISE, ECE, EEE, MECH, CV)

Faculty Name	Dr. Chitra K	
Academic Designation	Associate Professor, Department of MCA	
Educational Qualification	Ph.D., M.Phil., M.Sc. (Computer Science)	
Experience in Teaching & Industry	14	
Date of Joining	02-12-2022	
Official Email ID	chitranatarajan1979@yahoo.in	
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Educational Details

- Ph.D. in Computer Science — Mother Teresa Women's University, Kodaikanal, Tamil Nadu (2017) — Awarded
- M.Phil. in Computer Science — Mother Teresa Women's University, Kodaikanal, Tamil Nadu (2005) — 72%
- M.Sc. in Computer Science — Madurai Kamaraj University College, Madurai, Tamil Nadu (2001) — 80%
- B.Sc. in Computer Science — Ambiga College of Arts & Science, Madurai, Tamil Nadu (1999) — 75%

Professional Experience

- Associate Professor, Dept. of MCA — Dayananda Sagar Academy of Technology and Management, Bengaluru (Dec 2022 – Present)
- Associate Professor, Dept. of MCA — CMR University, Bengaluru, Karnataka (Sep 2021 – Nov 2022)
- Assistant Professor — New Horizon Degree College, Bengaluru, Karnataka (Sep 2017 – Aug 2021)
- Lecturer — SMSG Jain Degree College, Bengaluru, Karnataka (Jul 2008 – Nov 2010)
- Lecturer — Sri Kaliswari College, Sivakasi, Tamil Nadu (Jun 2002 – May 2003)
- Lecturer — Vysya College, Salem, Tamil Nadu (Jun 2001 – Apr 2002)

Publications

73 publications in Scopus-indexed and peer-reviewed international journals, including:

1. K. Chitra and P. Sivaprakasam, "ASK-BID: A Nash Auction Equilibrium Model for Service Provisioning in the Multi-Cloud Environment," Australian Journal of Basic and Applied Sciences (AENSI, Scopus Indexed), ISSN: 1991-8178, vol. 8, issue 17, pp. 402-411, Nov. 2014.
2. K. Chitra and P. Sivaprakasam, "EANA: A Cloud Job Migration Based Fault Tolerance Service Using Energy-Aware Nash Auction Equilibrium Model," International Review on Computers and Software (I.R.E.C.O.S, Scopus Indexed), ISSN: 1828-6003, vol. 9, issue 12, pp. 1993-2000, Dec. 2014.

3. K. Chitra and P. Sivaprakasam, "Cost Estimation in Heterogeneous Cloud Environment Using Fault Tolerance Services," International Journal of Electrical and Computing Engineering, ISSN (Online): 2349-8218, vol. 2, issue 1, Dec. 2014.
4. K. Chitra and P. Sivaprakasam, "Optimal Cost Estimation for Service Provisioning in the Multi-Cloud Environment," International Journal of Advanced Computational Engineering and Networking, ISSN: 2320-2106, volume 3, issue 1, Jan. 2015.
5. Dr. K. Chitra, "Cost Effective Method for Resource Provisioning in Heterogeneous Cloud," International Journal of Computer Engineering and Applications, ISSN 2321-3469, vol. XII, Special Issue, May 2018.
6. Dr. K. Chitra, "Cost Energy Aware Model for Workflow Jobs in Heterogeneous Cloud," International Journal of Basic and Applied Research, ISSN 2259-3352, volume 9, March 2019.
7. Dr. K. Chitra, "The Impact of Click Stream Analysis in Business Process," Journal of Emerging Technologies and Innovative Research (JETIR), ISSN 2349-5162, volume 6, issue 5, May 2019.
8. Dr. K. Chitra, "The Impact of Data Mining in Knowledge Discovery Process," International Journal of Business Management and Information Technology, ISSN 2321-8703, Special Issue I, January 2020.
9. Dr. K. Chitra, "Comparative Analysis of Nash Auction Equilibrium Model and Energy Aware Nash Equilibrium Model for Resource Provisioning in Heterogeneous Cloud," Studies in Indian Place Names (UGC CARE listed), ISSN 2394-3114, vol. 40, issue 13, February 2020.
10. Dr. K. Chitra, "Comparative Analysis of Energy Aware Nash Auction Equilibrium Model and Cost Energy Aware Nash Equilibrium Model for Resource Provisioning in Heterogeneous Cloud," Purakala (UGC CARE listed), ISSN 0971-2143, vol. 31, issue 5, April 2020.
11. Dr. K. Chitra, "Hyper Parameter Optimization in Gradient Boosting Model," Dogo Rangsang Research Journal (UGC CARE Group I), ISSN 2347-7180, vol. 11, issue 1, May 2021.
12. Dr. K. Chitra, "Comparative Analysis of Random Forest and Linear Regression for Prediction of Temperature," Juni Khyat (UGC CARE Group I), ISSN 2278-4632, vol. 11, issue 1, May 2021.
13. Dr. Chitra K, "Shopping Preferences Are Safeguarded by Differential Privacy," International Journal of Advance Research and Innovative Ideas in Education, ISSN(O) 2395-4396, vol. 9, issue 4, 2023.
14. Dr. Chitra K, "Deep Learning-Based Signature Verification," International Journal of Advance Research and Innovative Ideas in Education, ISSN(O) 2395-4396, vol. 9, issue 4, 2023.
15. Dr. Chitra, K. (2024), "EasyLearnify - A Student Study Portal," INTI International Journal, 2024(17), pp. 1-6, ISSN e2600-7320.
16. Dr. Chitra K, "Online Product Evaluation System Based on Ratings and Review," Journal of Data Science, 2024(07), pp. 1-6, ISSN 2805-5160.
17. Dr. Chitra K, "Secure Cloud Storage with a Sanitizable Access Control System Against Malicious Data Publisher," Journal of Data Science, vol. 2024:26.
18. Dr. Chitra K, "Voice-Assisted News App Using Natural Language Processing," Journal of Data Science, vol. 2024:24.
19. Dr. Chitra K, "Prevention of Unauthorized Access to Electronic Health Records Using Docker," Journal of Data Science, vol. 2024:16.
20. Dr. Chitra K, "A Study on Non-Fungible Tokens Marketplace for Secure Management," Journal of Data Science, vol. 2024:18.

21. Dr. Chitra K, "Effective Bug Triage for Software Development and Maintenance," Journal of Data Science, vol. 2024:27.
22. Dr. Chitra K, "Text to Image Generation Using Machine Learning," Journal of Data Science, vol. 2024:60.
23. Dr. Chitra K, "StressNet: Multimodal Stress Detection Using ECG and EEG Signals," Journal of Data Science, vol. 2024:59.
24. Dr. Chitra K, "Evaluating Machine Learning Algorithms for Fake Currency Detection," Journal of Data Science, vol. 2024:33.
25. Dr. Chitra K, "Email Phishing Detection Model Using CNN," Journal of Data Science, vol. 2024:43.
26. Dr. Chitra K, "Smart Home Security Using Facial Authentication," Journal of Data Science, vol. 2024:42.
27. Dr. Chitra K, "GIS-Enhanced Crop Yield Modeling with Machine Learning," Journal of Data Science, vol. 2024:37.
28. Dr. Chitra K, "Predicting Parkinson's Disease Using Machine Learning Model," Journal of Data Science, vol. 2024:36.
29. Dr. Chitra K, "Enhancing Travel Recommendations Through Attraction Preference Standardization," Journal of Data Science, vol. 2024:35.
30. Dr. Chitra K, "Automated System for Detecting Cyber Bot Attacks in 5G Networks Using Machine Learning," Journal of Data Science, vol. 2024:31.
31. Dr. Chitra K, "Recognizing Hate Speech on Twitter Using Machine Learning," Journal of Data Science, vol. 2024:28.
32. Dr. Chitra K, "Enhanced Spaces: The Art of Curating with Thoughtful Place Accessories Using Django," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
33. Dr. Chitra K, "Intelligent Fingerprint Recognition System Using Machine Learning," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
34. Dr. Chitra K, "StockSight: Insightful Predictions for Strategic Investments," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
35. Dr. Chitra K, "Demand Forecasting for Agro Tech Technical Textiles," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
36. Dr. Chitra K, "Auto Mobilize Pro," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
37. Dr. Chitra K, "Sentiment Analysis and Rating Prediction for Hotel Reviews," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
38. Dr. Chitra K, "Plant Disease Recognition Through Deep Learning and CNNs," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
39. Dr. Chitra K, "Demand Forecasting for Aqua Tech Technical Textiles," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
40. Dr. Chitra K, "Real-Time People Counting System," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
41. Dr. Chitra K, "Blockchain Based Voting System," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.

42. Dr. Chitra K, "Prediction of Indian Currency Using Artificial Neural Networks," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
43. Dr. Chitra K, "SecureCloud: A Shield Against Virtual Threats," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
44. Dr. Chitra K, "FinSync AI: Stock Market Analysis," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
45. Dr. Chitra K, "Crop Selection and Cultivation Using Machine Learning," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
46. Dr. Chitra K, "Detecting Missing Persons Using Face Recognition," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
47. Dr. Chitra K, "WorkSync 360," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
48. Dr. Chitra K, "Predictive Analytics for Maintenance," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
49. Dr. Chitra K, "Object Detection for Autonomous Vehicles Using YOLO Algorithm," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
50. Dr. Chitra K, "Unveiling the Shadows: A Guide for Diagnosing Leukemia and Better Outcomes," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
51. Dr. Chitra K, "Insurance Claim Prediction," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
52. Dr. Chitra K, "Real-Time Driver State Detection Based on OpenCV and Mediapipe Libraries," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
53. Dr. Chitra K, "Forecasting the Rate of Crime Using Machine Learning," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
54. Dr. Chitra K, "Seasonal and Trend Analysis of Drug Sales Using Time Series Analysis," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
55. Dr. Chitra K, "Anomaly Detection Systems Using Machine Learning Algorithms," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
56. Dr. Chitra K, "Procurement Management System," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
57. Dr. Chitra K, "Finger Vein Detection Using Machine Learning," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
58. Dr. Chitra K, "Intrusion Detection System Using Machine Learning," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
59. Dr. Chitra K, "Climate Change Prediction," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
60. Dr. Chitra K, "Predictive Modeling for Diabetic Management: A Machine Learning Approach," International Journal of Advanced Research in Science, Communication and Technology, vol. 4, issue 6, November 2024.
61. Chitra K. (2025), "Comparative Study on Water Potability Prediction Using Ensembled Based Techniques," Journal of Innovation and Technology, 2025(2).

62. Chitra K. (2025), "Firebase-Integrated Mobile Platform for Swipe-Driven Job Matching," Journal of Innovation and Technology, 2025(2).
63. Chitra K. (2025), "A Novel Approach to Blockchain for Financial Transactions in Rural Sectors," Journal of Innovation and Technology, 2025(2).
64. Chitra K. (2025), "A Review of IoT Security Issues in Smart City Systems," Journal of Innovation and Technology, 2025(24), pp. 1-6.
65. Chitra K. (2025), "Quantum-Resistant Cryptography in Cyber Security," Journal of Innovation and Technology, 2025(22), pp. 1-6.
66. Chitra K., "Reinforcement and Federated Learning based Self Healing Architecture for Smart City," 2026 8th International Conference on Inventive Material Science and Applications (ICIMA), Namakkal, India, 2026, pp. 343-349, doi: 10.1109/ICIMA68728.2026.11564130.
67. Chitra K, "Leveraging Advanced Deep Learning Algorithms to Combat Fake News in Arabic Media Landscape," International Journal of Electronic Security and Digital Forensics (Scopus Indexed, Q3).
68. Chitra K, "Transforming Electrical Simulation and Management with Smart Grid Technologies," International Journal of Engineering Systems Modelling and Simulation (Scopus Indexed, Q3), 16(4):241-253, January 2025.
69. Chitra K, "Enhanced EMG-Based Hand Gesture Recognition Using Generalized Deep InfoMax Networks," Journal of Sensors (Scopus Indexed Q1), August 2025.
70. Chitra K, "Deep Learning Model for Early Lung Nodule Classification," 2026 4th International Conference on Knowledge Engineering and Communication Systems (ICKECS), Chickaballapura, India, 2026 (Scopus Indexed), pp. 1-6, doi: 10.1109/ICKECS70176.2026.11528036.
71. Chitra K. (2026). AI-Assisted quantum computing and neural network approaches for graph-theoretic nonlinear optimization of fuzzy partial differential equation models. Results in Nonlinear Analysis (Scopus Indexed Q2), 9(1), 29-41.
72. Chitra K. (2026). High-Dimensional Cancer Genomic Data Modeling Using Distributed Machine Learning Algorithms for Genetic and Transcriptomic Pattern Discovery. Genetics and Molecular Research (Scopus Indexed Q4), 25(1), 1-9.
73. KR, Y. B., & Chitra, K. (2025, September). AI-Driven Load Balancing and Energy-Efficient Resource Optimization in Mobile Edge Computing: A Comprehensive Review. In 2025 International Conference on Transformative Computing Technologies (ICTCT) (Scopus Indexed) (pp. 145-150). IEEE.

International Conferences – Paper Presentation

- "Deepfake Detection using Deep Learning," 2026 International Conference on Emerging Trends in Mobile Computing and Sustainable Informatics (ICEMCSI 2026), June 2026.
 - "An Automated Web Security Configuration Assessment Framework for Proactive Vulnerability Detection and Remediation," ICEMCSI 2026, June 2026.
 - "Deep Learning based Violence Detection in Surveillance Images and Videos," ICEMCSI 2026, June 2026.
- Deep Learning Model for Early Lung Nodule Classification," 2026 4th International Conference on Knowledge Engineering and Communication Systems (ICKECS), Chickaballapura, India, 2026
- "AI-Driven Load Balancing and Energy-Efficient Resource Optimization in Mobile Edge Computing: A Comprehensive Review," First International Conference on Transformative Computing Technologies (ICTCT 2025), September 2025.

- "Reduction of Energy Consumption Using Workflow Management in Heterogeneous Cloud," International Multidisciplinary Virtual Conference on Research and Development in Dynamic Times, July 2020.
- "A Study on Steps for Exploration and Preparation of Data in Predictive Modelling," International Virtual Conference on World of Machine Learning and AI in Digital Era, Coimbatore, May 2020.
- "Auction Based Resource Provisioning in Heterogeneous Cloud," International Virtual Conference on World of Machine Learning and AI in Digital Era, Coimbatore, May 2020.
- "Ask-Bid Mechanism for Resource Provisioning in Heterogeneous Cloud," IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT 2019), Bengaluru, May 2019.
- "The Overview of Knowledge Discovery Process in Data Mining," IEEE RTEICT 2019, Bengaluru, May 2019.
- "Cost Effective Method for Resource Provisioning in Heterogeneous Cloud," International Conference on Trends and Innovations Implying Future Technology, Bengaluru, March 2018.
- "Cost Estimation in Heterogeneous Environment Using Fault Tolerance Services," International Conference on Innovative Research in Electrical, Electronics and Computing Engineering (ICREEC), Coimbatore, December 2014.
- "Optimal Cost Estimation for Service Provisioning in the Multi-Cloud Environment," International Conference on Electrical, Electronics and Computer Engineering (ICEECE), Pune, November 2014.
- "Database Tuning Methods in Data Warehousing Systems," International Conference on Semantic E-Business and Enterprise Computing (SEEC), Tiruchirappalli, Tamil Nadu, November 2009.

Research Profile

- Holds Research Guideship (Ph.D. Supervisor status) from Visvesvaraya Technological University (VTU), Karnataka; presently guiding 4 Ph.D. research scholars under VTU
- Research Advisory Committee (RAC) Member for 7 Ph.D. scholars under VTU
- Guided 5 Ph.D. research scholars at CMR University, Bengaluru
- Specialization: Cloud Computing, Edge Computing, and Data Science

Ph.D. Thesis: "Cost and Energy Aware Nash Equilibrium Model for Resource Provisioning in Heterogeneous Cloud" — Mother Teresa Women's University, Kodaikanal, Tamil Nadu

M.Phil. Thesis: "Knowledge Discovery Process in Data Mining" — Mother Teresa Women's University, Kodaikanal, Tamil Nadu

Certifications

NPTEL Certifications

- Cloud Computing ,Introduction to Operating Systems ,Database Management Systems ,Python for Data Science

Data Science & Analytics Certifications

- Excel Advanced and VBA ,SQL Server, MS-Access ,Python Machine Learning ,Predictive Modelling using R
- SAS Programming ,Machine Learning, Tableau & Power BI

Other Professional Certifications

- AWS Solutions Architect Associate — Intellipaat
- Reinforcement Learning — Intellipaat , Foundations of Cybersecurity — Google

Patents

1. Cloud-Integrated Intelligent IoT System with Machine Learning for Automated Student Attendance in Higher Education. Indian Patent 202621034565 A, May 2026.
2. Machine Learning-Based Predictive Air Pollution Control System Using Cloud-Enabled IoT Integrated Solar Hybrid Vehicles in Smart Cities. Indian Patent 202641038895 A, April 2026.
3. Cloud-Based Resource Allocation System Using Predictive Load Balancing for Virtual Machine Clusters. Indian Patent 202541117261, Published December 2025.
4. Deep Learning Aided Device to Evaluate Mental State of a Person. Indian Design Patent No. 454402-001, Granted April 6, 2025.
5. Method for Analyzing Animal Behavior Patterns using Machine Learning Algorithms. Indian Patent 202541031350, Published April 11, 2025.
6. Smart Speed Control for Road Accident Prevention Using Computer Vision & IoT. Indian Patent 202441093612, Published November 2024.
7. Solar Powered Wireless Sensor Node for Data Communication. Indian Design Patent No. 411655-001, Granted March 27, 2024.
8. Robust Encryption and Access Control Mechanisms for Ensuring Confidentiality in Cloud-Based Data Storage. Indian Patent 202441011307, Published March 8, 2024.
9. Cloud Computing and Edge Computing Paradigms for Massive Access in a Cell-Free Massive MIMO-Based Internet of Things (IoT). Indian Patent 202341061734, Published October 13, 2023.
10. A Green 6G Network for Pervasive Communication: An Experimental Analysis. Indian Patent 202341068481, Published October 20, 2023.
11. Design Blockchain Auction System for Price Recommendation and Secure Execution. Indian Patent 202241061734, Published December 2, 2022.

Awards

Best Paper Award — "The Impact of Data Visualization in Educational Concept," National Level Virtual Conference on NEP 2020, Sadhana Degree College, Bengaluru, November 2020.

Academic Activity

Administrative & Institutional Responsibilities:

- Institute-level Coordinator — NIRF Committee, Dayananda Sagar Academy of Technology and Management
- Coordinator — Program Assessment Committee (PAC) and Curriculum Development;
- Board of Studies (BOS) Member — MCA Department, AMC College of Engineering, Bengaluru
- Board of Studies (BOS) Member — BCA Department, SEA Degree College, Bengaluru
- Board of Examiners (BOE) Member — MCA Department, Rajarajeshwari Engineering College, Bengaluru
- Life Member, Association of All Computer Science Teachers (AACST)

As a Resource Person

- Resource Person, National Level Conference on "Transforming Management Education in a Digital World," R&D Cell, Dayananda Sagar Business Academy, June 20, 2025.

- Resource Person, National Level Workshop on "Quantum Computing: Driving Innovation in Environment and Sustainability," organized by AACST, August 15, 2024.
- Resource Person, Three-Day Faculty Development Programme on "Data Visualization Using Power BI," Dayananda Sagar Academy of Technology and Management, Bengaluru, January 2024.
- Resource Person, Three-Day Workshop on "Data Analytics Using MS-Excel and Power BI" for MBA students, Dayananda Sagar Academy of Technology and Management, Bengaluru, December 2023.
- Resource Person, One-Day Workshop on MS-Excel for Non-Teaching Staff, Dayananda Sagar Academy of Technology and Management, Bengaluru, June 2023.
- Session Chair, Third IEEE Global Conference for Advancement in Technology, October 7-9, 2022.
- Chairperson, Faculty Research Programme, Dept. of Computer Science, organized by IQAC, St. Anne's Degree College for Women, Bengaluru, October 27, 2020.
- Resource Person, Webinar on "Impact of Data Visualization in Business Analysis," Dept. of Computer Science, CMR University, Bengaluru, February 27, 2021.
- Resource Person, Webinar on "Introduction to Data Science," Dept. of Computer Science, Pioneer College, Coimbatore, Tamil Nadu, February 16, 2021.
- Resource Person, National Webinar on "Introduction to Data Visualization and Its Tools," Dept. of Computer Science, NGM College, Pollachi, Tamil Nadu, August 3, 2020.
- Resource Person, Webinar on "Overview of Macro Processor, Loaders and Compilers in System Programming," St. Aloysius Degree College for PG Studies, Bengaluru, July 15, 2020.
- Resource Person, Seminar on "Memory Management in Operating Systems," Dept. of Computer Science, SMSG Jain College, Bengaluru, October 25, 2018.

Contact Details

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