DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT



(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE, New Delhi)

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

Accredited by NBA, New Delhi

Faculty Name	Dr. J.T.THIRUKRISHNA
Designation	ASSOCIATE PROFESSOR
Educational Qualification	M.E., Ph.D.,
Experience in Years	14 Years
Area of Interest	Data Science, Cyber Security, Wireless Sensor Networks
E-mail ID	drthirukrishna@dsatm.edu.in



Educational Details

- **Ph.D**: Computer Science and Engg.(CSE), Anna University, Chennai, Tamil Nadu, India-July 2018.
- **M.E**: Computer Science and Engineering (**First Class with Distinction**), SONA College of Technology, Tamil Nadu, India- June 2010.
- **B.TECH**: Information Technology **(First Class)**, K.S.R College of Engineering, Tamil Nadu, India-May 2007.

Patent Publications

- Received Patent Grant for U.K Design Foreign Patent title "Machine Learning- Based Health Monitoring Wearable Device", 25.10.2023 (Design Number: 6319898).
- Indian Patent Published title "Design system of Speed Behavior of Heterogeneous Traffic on Two-Lane Rural Roads using IoT", 01/09/2023 (Application Number: 202341054443)
- Indian Patent Published title "IoT-driven for Task Scheduling Algorithm with High Performance Using Reference Queues for Cloud Data Centers",09/02/2023. (Application Number: 202341008394)
- **Indian Patent Published** title "General Machine Learning model access point placement in reconfigurable wireless networks", **10/05/2021**. (Application No. 202141017934).

Certifications

- ✓ Certified on Palo Alto Networks Certified Cybersecurity Entry-level Technician (PCCET) Global Exam, certified trainer on Palo Alto Cyber Security.
- ✓ Completed "Architecting with Google Compute Engine" online courses conducted by **Google**Coursera on April 2020.

Professional Experience

- ✓ Presently working as an Associate Professor in the Department of Information Science and Engineering, Dayananda Sagar Academy of Technology & Management, Bangalore, India from December 2019 to till date.
- ✓ Worked as an Associate Professor in the Department of CSE at MVJ College of Engineering, Bangalore, India from August 2018 to December 2019
- ✓ Worked as an Assistant Professor in the Department of Information Technology at SNS College of Technology, Coimbatore, Tamil Nadu, India from June 2010 to April 2018.

Personal Details

- ✓ **Date of Birth:** 05.05.1985.
- ✓ Hobbies: Playing Cricket, Badminton and Cooking.
- ✓ **Languages Known:** English, Tamil, Kannada.

Research Publications (SCI/WoS/Scopus)

- 1. Published a book title on "Network Design and Technologies", Unique Pub International Hybrid optimization enabled deep learning-based ensemble classification for heart disease detection. SIViP (Signal, Image and Video Processing/ Springer, SCI Indexed Journal/Q2)), 2023 (Accepted for publication), https://doi.org/10.1007/s11760-023-02656-2
- 2. Intrusion detection in big data using hybrid feature fusion and optimization enabled deep learning based on spark architecture, **Computers & Security (Elsevier, SCI Indexed Journal /Q1)**, Vol. 116, 2022, 102668, ISSN 0167-4048, doi: https://doi.org/10.1016/j.cose.2022.102668
- Survey on Diagnosing CORONA VIRUS from Radiography Chest X-ray Images Using Convolutional Neural Networks. Wireless Personal Communication, Vol. 124, 2261–2270 (2022) (Springer, SCI Indexed Journal/Q2). doi: https://doi.org/10.1007/s11277-022-09463-x
- 4. Certain Investigation on Healthcare Monitoring for Enhancing Data Transmission in WSN. International Journal of Wireless Information Networks, 30, 103–110 (2023), ISSN: 1572-8129. (Web of Science Indexed/Q2). doi: https://doi.org/10.1007/s10776-021-00530-x
- 5. A Novel Approach for QoS Enhancement with Revision Scheme Using SeDSR Protocol in Wireless Sensor Networks. Wireless Pers Commun. ISSN: 09296212 **(SCI Indexed, Springer/Q2)**. Vol. 120. pp.401–417. (2021). doi: https://doi.org/10.1007/s11277-021-08466-4
- OREA for improving data packet transmission in Wireless Sensor Networks with Cloud Security Mechanism. International Journal of Cloud Computing, ISSN: 20439997 (Inder science, Scopus/Q4). Vol. 9. Issue No. 2/3. pp. 245-257. 2020. doi: https://doi.org/10.1504/IJCC.2020.109379
- An Efficient QoS Based Data Packet Transmission in Wireless Sensor Networks Using OREA. Wireless Personal Communications, ISSN: 09296212. Vol. 113. 1839-1850 (2020). (Springer, SCI Indexed Journal/Q2). doi: https://doi.org/10.1007/s11277-020-07295-1
- 8. Revamp energy efficiency in Homogeneous Wireless Sensor Networks using Optimized Radio Energy Algorithm (OREA) and Power-Aware Distance Source Routing protocol. Future Generation Computer Systems. ISSN: 0167-739X. **EVISE (Elsevier, SCI Indexed Journal/Q1)**. Volume 81. pp. 331-339. 2018. ISSN: 0167-739X. doi: https://doi.org/10.1016/j.future.2017.11.042
- V-Shaped Binary Version of Whale Optimization Algorithm for Feature Selection Problem. In: Saini, H.S., Sayal, R., Govardhan, A., Buyya, R. (eds) Innovations in Computer Science and Engineering. ICICSE 2022. Lecture Notes in Networks and Systems(Scopus Indexed/Q4), vol 565. Springer, Singapore, 2023. https://doi.org/10.1007/978-981-19-7455-7 23

- 10. An Enhanced Information Broadcast in WSN Using Optimized Energy Algorithm for Healthcare. In: Saini H.S., Sayal R., Govardhan A., Buyya R. (eds) Innovations in Computer Science and Engineering. Lecture Notes in Networks and Systems(Scopus Indexed/Q4), Vol. 385. Springer, Singapore, 2022. https://doi.org/10.1007/978-981-16-8987-1 16
- 11. Enhancing Accuracy Performance in Novel Drug Delivery System for Composite Microbeads Using Hadoop Ecosystem Over Conventional Drug Delivery Systems. In: Saini H.S., Sayal R., Govardhan A., Buyya R. (eds) Innovations in Computer Science and Engineering. **Lecture Notes in Networks and Systems (Scopus Indexed/Q4)**, Vol. 385. Springer, Singapore,2022. https://doi.org/10.1007/978-981-16-8987-1 33
- 12. Implementation of Smart Parking Application Using IoT and Machine Learning Algorithms. In: Smys S., Bestak R., Palanisamy R., Kotuliak I. (eds) Computer Networks and Inventive Communication Technologies. Lecture Notes on Data Engineering and Communications Technologies (Scopus Indexed/Q3), Vol. 75. Springer, Singapore,2022. https://doi.org/10.1007/978-981-16-3728-5-18
- 13. Fuzzy Interference System based Link Failure prediction in MANET. Journal of Physics: Conference Series (Scopus Indexed/Q4). Vol.1964. 2021. ISSN: 1742-6596. doi: https://doi.org/10.1088/1742-6596/1964/7/072020
- 14. ICSA-ECNN based Image Forgery Detection in Face Images. 2021 International Conference on Computer Communication and Informatics (ICCCI). 2021. pp. 1-4. IEEE transactions. ISSN: 2168-2216(Scopus Indexed). doi: https://doi.org/10.1109/ICCCI50826.2021.9402302

Book Publications

- ✓ Published a book title on "Cloud Application Development and Management, Unique Pub International Publisher, ISBN number: 978-81-954927-2-5, 2021.
- ✓ Published a book title on "Network Design and Technologies", Unique Pub International Publisher, ISBN number: 978-81-954927-3-2, 2022.

Awards and Recognition

- ✓ Visveswaraya Technological University, Bangalore Research Supervisor and Guiding 3 Research Scholars
- ✓ Visveswaraya Technological University, Bangalore **RAC member**
- ✓ Received **Best Professional Performer 2021-22** Award on 10 Sep. 2022.
- ✓ Bharathiar University, India **Board of Studies Membe**r Computer Science (PG)-1-CS, 2022.
- ✓ Bharathiar University, India Ph.D., Scholars **Indian Examiner**
- ✓ Presidency University, India **RAC member** for 2 Ph.D. Scholars 2021 to till date.
- ✓ Received **Award of Excellence in Research Award 2020-2021** from Novel Research Academy, Puducherry, India on 20th Jan. 2021.
- ✓ Guest of Honor, National Seminar on Recent Trends in Advanced Technologies conducted by Department of Computer Application, Nandha Arts and Science College, Erode on 17th Feb. 2020.
- ✓ Received GLOBAL TEACHER AWARD 2019 from AKS Education Awards, Delhi on 15th September 2019.

Research Work Carried Out

- ✓ Submitted VGST Research FDP proposal Rs. 1,50,000, 2023.
- ✓ Submitted DST-NSTEDB FDP Proposal Rs. 2,50,000, 2023.
- ✓ Submitted Research Proposal Rs 10 Crores to ATAL Incubation Centre, 2022.
- ✓ Submitted Research Proposal Rs. 5 Crores to ATAL innovation Missions, 2022.
- ✓ Submitted DST-FIST Centre of Excellence in Cyber Security Rs. 77 Lakhs, 2022.
- ✓ Applied Best Research Award 2022 in VGST.

- ✓ Received financial assistance for innovative project 2021 from VTU, Bangalore, titled Efficient Data Transmission in WSN using Wearable Sensors for Healthcare Monitoring.
- ✓ FDP Proposal submitted to VGST, Bangalore, "Machine Learning in Medical Image Processing: Research Issues, Innovation and Applications", 2021.
- ✓ Research proposal has been submitted to DST-SERB (CRG) (Reference No: CRG/2019/000244) titled "Efficient data transmission in Wireless Sensor Networks Using Energy Strengthen Algorithm for healthcare monitoring" amount Rs.19,70,209.00.
- ✓ Workshop proposal submitted to NASSDOC (ICSSR) titled "Machine Learning with Python and its Application" 2019.
- ✓ FDP proposal submitted to VTU (TEQIP-CELL) titled "Artificial Intelligence and Machine Learning with Python" 2019.
- ✓ Seminar proposal submitted to CSIR titled "Block Chain Technology for Digital India", 2019.

Publications in International Conferences

- ✓ Presented a paper titled "V-Shaped Binary Version of Whale Optimization Algorithm for Feature Selection Problem", (ICICSE-2022), GNIT, Hyderabad, 2022
- ✓ "An enhanced data transmission in WSN using Optimized Energy Algorithm for health care monitoring", International Conference on Innovations in Computer Science and Engineering (ICICSE-2021), 3-4 September 2021.
- ✓ Presented a paper titled "ICSA-ECNN BASED IMAGE FORGERY DETECTION IN FACE IMAGES", 11th INTERNATIONAL CONFERENCE ON COMPUTER COMMUNICATION AND INFORMATICS 2021 IEEE sponsored, SSIET, Coimbatore held from 27-29 January 2021.
- ✓ Presented a paper titled "Data Security in Cloud Computing using Transparency Service Model", 2nd International conference on Innovations in Computing, Automation and Intelligent Information Systems held on 29th and 30th May, 2019 at MVJ College of Engineering, Bangalore.
- ✓ Presented a paper titled "Gesture Controlled Home", 2nd International conference on Innovations in Computing, Automation and Intelligent Information Systems held on 29th and 30th May, 2019 at MVJ College of Engineering, Bangalore.
- ✓ Presented a paper titled, "Optimizing Spatio temporal DRP for WRSNS using Heuristic based constraints", 3rd International conference on Advanced Engineering and Technology for Sustainable Development, Held on 30th and 31st March 2017 at Karpagam College of Engineering.
- ✓ Presented a paper titled, "Sentimental Data Analysis on Social Media", International conference on Green Intelligent Computing and Communication Systems, held on 10th and 11th March 2016 at Hindustan College of Engineering and Technology, Coimbatore.
- ✓ Presented a paper titled, "Finding and Locating Numerous Spoofing Adversaries in WSNs", International conference on Advanced Control Systems Machines and Embedded Technology, held on 7th and 8th March 2014 at J.K.K.Natraja College of Engineering and Technology, Namakkal.
- Presented a paper titled, "Rapid Decentralized Network Intrusion Defense System on Virtual Machines", International conference on Advanced Control Systems Machines and Embedded Technology, held on 7th and 8th March 2014 at J.K.K.Natraja College of Engineering and Technology, Namakkal.

Publications in Non-Refereed Journals

- ✓ "Solid waste Management in smart cities", International Journal of Advance Research and Innovative Ideas in Education, 2023
- ✓ "A Detailed Examination of Machine Learning Techniques for Predicting Heart Illness", International Journal of Advance Research and Innovative Ideas in Education, 2023.
- ✓ "An Extensive Analysis of Data Mining and Machine Learning Strategies For Heart Disease Prediction" International Journal of Advance Research and Innovative Ideas in Education, 2023.
- ✓ "Promoting Fitness through Gamification", International Journal of Advance Research and Innovative Ideas in Education, 2023.

- ✓ "An Implementation paper on congestion handling organization using cyber safe", ", International Journal of Advance Research and Innovative Ideas in Education, 2023.
- ✓ "Efficient data Transmission in WSN using wearable sensors for Healthcare Monitoring." International Journal Of Advance Research And Innovative Ideas In Education 7, no. 2 (2021): 446-457.
- ✓ "Detecting CORONA VIRUS Using Chest X-ray images." International Journal of Advance Research and Innovative Ideas in Education 7, no. 2 (2021): 440-445.
- ✓ "Data Security in Cloud Computing using Transparency Service Model", International Journal of Management, Technology and Engineering (UGC Journal), Volume IX, pp.3231-3236, Issue VI, JUNE/2019.
- ✓ "Gesture Controlled Home", International Journal of Management, Technology and Engineering (UGC Journal), Volume IX, pp.3222-3226, Issue VI, JUNE/2019.
- ✓ "Optimizing Spatio Temporal DRP for WRSNS using Heuristic based Constraints", IJIRST, March 2017.
- ✓ "A Survey on Big Data Storage in Cloud", International Journal of Scientific Research and Development, Vol.2, Issue 09, 2014.
- ✓ "Rapid Decentralized Network Intrusion Defense System on Multiple Virtual Machines", International Journal of Computer Science Trends and Technology (IJCST) Volume 2 Issue 1, Jan-Feb 2014 ISSN: (2347-8578).
- ✓ "Survey on localization of the Sensor nodes in Wireless Sensor Networks", International Journal Computer Science Trends and Technology, Vol. 2, Issue I, Jan-Feb 2014, (ISSN: 2347-8578).
- ✓ "Optimizing Energy Efficiency in Wireless Sensor Network Using LEACH Protocol", International Journal of Emerging Trends & Technology in Computer Science, Volume 2, Issue 2, March April, 2013, (ISSN 2278-6856).
- ✓ "A Novel Survey on Cloud Security", International Journal of Electronics, Communication & Soft Computing Science and Engineering, Vol. 3, Issue I, November 2012, (ISSN: 2277-9477).
- ✓ "Optimizing Quality of Service Evaluation in IEEE 802.15.4 Networks", International Journal of Computer Applications & Information Technology, Vol. I, Issue III, November 2012, (ISSN: 2278-7720).

Academic Activity

- ✓ UG Project Coordinator of CSE department (2 Semesters).
- ✓ PG Thesis guided 5 students.
- ✓ UG projects guided more than 50 students and Autonomous Accreditation and Re-Accreditation IT department Coordinator.
- ✓ Tier-II NBA Accreditation & NACC Accreditation and Re- Accreditation Department Coordinator.
- ✓ Served as a Coordinator of International Conference (ICSNS 2015 and ICSNS 2018).
- ✓ Served as a Coordinator of National Conference (NCNICS 11, 12, 13, 14, 16 and 17).
- ✓ SNS SRI Event manager for admission promotion activities.
- ✓ Served as Staff Coordinator for Department Association and conducted National Level Technical Symposium for many Times.
- ✓ Class Advisor for different batch students.
- ✓ Served as an effective tutor and counselor for the affairs of the students.
- ✓ Syllabus framed for various subjects in IT Autonomous syllabus.
- ✓ Semester Question paper prepared for various Autonomous Colleges and also paper valuation done in different autonomous colleges.
- ✓ Conducted guest lecture for various courses in IT department.

Faculty Development Activity

- ✓ Organized Entrepreneurship Development cell under 5+ Technical Session and seminar from MSME, and Industry Resource persons from Jan. 2021 to Dec.2021.
- ✓ Organized 3 FDP's from January to August 2020.
- ✓ Attended 15 + Webinars with two ATAL FDP's from March 2020 to August 2020.
- ✓ Completed Google cloud carrier readiness program on July 2020 with the specialization of "Architecting with Google Compute Engine" conducted by Google Coursera.
- ✓ Attended one-day seminar on "Big data Analytics and Hadoop ECO System" held on 9th Feb. 2018, organized by Dept. of MCA, SRM Institute of Science and Technology, Ramapuram, Chennai.
- ✓ Attended one-day national level research seminar on "Sponsored research funding opportunities through DRDO & Intellectual property rights opportunities and challenges in engineering and entrepreneurship", at SNS College of Engineering, Coimbatore on 30th November 2017.
- ✓ Attended one day Faculty Development Program on "Networking Simulation using Qualnet software", Dellsoft Technologies on 17th Oct. 2017.
- ✓ Attended one day seminar on "Smart GRID" held on 2nd Dec. 2016, organized by Dept. of Electrical and Electronics Engineering Kumaraguru College of Technology, Coimbatore.
- ✓ Attended one day international seminar on "Andes Embedded Processor : IoT on Wearable
- ✓ Technologies & Sharing and Controlling the Internet of Things" held on 26.02.2015, organized by Dept. of CSE SNS College of Technology, Coimbatore
- ✓ Participated five days (National Institute of Technical Teachers Training and Research) NITTR Faculty Development Programme on "Instructional Design and Delivery System" held on 06.01.2015 to 10.01.2015, organized by SNS College of Technology, Coimbatore.
- ✓ Participated one day workshop on "Research Methodology" held on 16.12.2014, organized by Anna University, Chennai.
- ✓ Attended one day workshop on "Bigdata Analytics" conducted by Department of Software
- ✓ Engineering Sri Krishna College of Engineering and Technology, Coimbatore on 11th Oct. 2014.
- ✓ Participated two days hands on training on WEKA organized by department of computer technology, Kongu Engineering College, Erode 25.09.2014 and 26.09.2014.
- ✓ Attended one day workshop on "Data mining Using R" organized by Sri Ramakrishna Engineering College, Coimbatore on 13th Sep. 2014.
- ✓ Attended two days seminar on "Enhanced Research with Target and Results" conducted by Dept. of CSE, SNS College of Technology, Coimbatore 13th and 14th Aug. 2014.
- ✓ Attended seven days FDTP on "Service Oriented Architecture" conducted by Anna University, Chennai from 3rd to 9th July 2014
- ✓ Participated in AICTE sponsored national seminar "Green Computing for Sustainability" at SNS College of Technology, Coimbatore on 24th Jan. 2014.
- ✓ Participated in DBT sponsored national seminar "Gene Expression Data Analysis Using Machine Learning and Soft Computing Techniques" at Kongu Engineering College, Erode 6th and 7th Sep. 2013.
- ✓ Attended two days CSIR sponsored seminar on "High Performance Computing and Cyber Security" conducted by Dept. of IT, SNS College of Technology. Coimbatore, 22 and 23 Jan.2013
- ✓ Participated in Faculty Development Training Program "CS2402-Mobile & Pervasive Computing" at SNS College of Technology, Coimbatore on 3rd to 9th Jan. 2013, conducted by Center for Faculty Development, Anna University, and Chennai.
- ✓ Participated in Two Days Workshop on "Emerging Trends And Issues In Cloud With Green Computing" at SNS College of Technology, Coimbatore on 27th &28th Dec. 2012.
- ✓ Participated in Four Days Workshop on "Object Oriented Analysis and Design Using UML with Essentials of Rational Software Architect" at SNS College of Technology, Coimbatore on 1ST to 4th Feb. 2012 conducted by IBM.
- ✓ Participated in one day workshop on "WEKA-Data Mining Tool" at Government College of Technology (GCT), Coimbatore on 29th Sep. 2011.
- ✓ Participated in one-day Workshop on "Simulation Tools for Grid and Cloud Computing" at SNS College of Technology Coimbatore on 24th Sep. 2011.

- ✓ Participated in two days Seminar on "Wireless Technologies on Medical Informatics" at Sri Krishna College of Engineering and Technology, Coimbatore on 25th and 26th February 2011.
- ✓ Participated in Two Days Workshop on "Digital Image Processing" at Vivekananda College of Engineering for Women, Tiruchengode on 7th and 8th September 2010.
- ✓ Participated in two day's Workshop on "Web 2.0 Tools and Rich Internet Application" at V.L.B Janakiammal College of Engineering and Technology, Coimbatore on 27th and 28th August 2010.
- ✓ Attended one day workshop on "Advanced Developer Technologies" organized by Microsoft Corporation at Gnanamani College of Technology, Rasipuram on 31st of July 2009.
- ✓ Participated in two day's workshop on "Infosys Soft Skills" at Sona College of Technology, Salem on 14th and 15th of November 2008.
- ✓ Participated one day seminar on "Security Issues in Modern Computing Era" organized by CSI (Computer Society of India), Coimbatore on 18th December 2008.

Guest Lecture presented

- ✓ Presented 3 Days Guest Lecture on "Computer Networks" as an Adjunct Faculty Lecture, PSGR Krishnammal College for Women, Coimbatore, Tamil Nadu, India dated from 12.05.2022, 13.05.2022 and 18.05.2022.
- ✓ Six Days **AICTE-ISTE FDP on Cyber security and Ethical Hacking**, Resource Person for one day conducted by Dayananda Sagar Academy of Technology and Management, Bangalore, India on 20.01.2022.
- ✓ Presented a seminar on **Data Science** conducted by department of Information Technology, Kongunadu College of Engineering and Technology, Trichy, Tamil Nadu,India on 03.06.2021.
- ✓ Invited as a Resource Person and presented a topic on "Data Science" National Seminar on Recent Trends in Advanced Technologies conducted by Department of Computer Application, Nandha Arts and Science College, Erode, Tamil Nadu, India on 17th Feb. 2020.

Professional Membership

- ✓ IEEE Senior Member Membership ID: 94460598
- ✓ Life Member in CRSI Membership ID: L/1056
- ✓ Life Member in Indian Society for Technical Education Membership ID: LM127878
- ✓ Global Member in Internet Society (Membership ID: 2226666)
- ✓ Member in International Association of Engineers (Membership ID: 136948)

EXTRA CURRICULAR ACTIVITIES

- ✓ Winner of Anna University Zonal Tournaments 2009-10 Cricket Match held at Jayam College of Engineering and Technology, Dharmapuri and also Scored "105 runs, 54 runs" on March 3rd-7th, 2010 organized by Anna university, Coimbatore.
- ✓ Played cricket match for 'A' division cricket league match at the ROCK Cricket Club, Salem organized by Salem District Cricket Association (SDCA) during 2009-2012.
- ✓ Played intra-college cricket tournaments "SYSCOL Trophy" conducted by JSW Steels held at Salem, 2009.
- ✓ Lead captainship for a Salem zone "Anna University Inter-Zonal Tournament 2005-06
- ✓ Cricket Matches" venue at St. Josephs College of Engineering, Chennai organized by Anna
- ✓ University, Chennai.
- ✓ Lead captainship and played intra-college cricket tournaments "K.S.R TROPHY" during the year of 2003-2006.
- ✓ Played district level cricket tournaments for DCAN (DISTRICT CRICKET ASSOCIATION NAMAKKAL) various age categories such as "UNDER16, UNDER17, UNDER19, UNDER21& also leading captainship" conducted by Tamil Nadu Cricket Academy and my performance published in Hindu Newspaper.

Contact Details

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My Vision

Challenging opportunities both in academics and administrative activities for the all-round development of the Students, Institution, implementing National Educational Policy and to make students face the world intelligently, wisely and to make him/her a good human being.