



**DAYANANDA SAGAR ACADEMY OF
TECHNOLOGY & MANAGEMENT**

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

Faculty Name	Dr. SANDHYA N	
Academic Designation	Professor & HoD	
Educational Qualification	BE, M. Tech, Ph.D	
Experience in Years	0.5(Industry) + 19(Teaching)	
Area of Interest	Image Processing, Machine Learning, Big Data.	
Date of Birth	19-09-1982	
Email ID	hodaaiml@dsatm.edu.in dr.sandhya1909@gmail.com	
Educational Details		
<ul style="list-style-type: none">• Ph.D - in Image processing field from VTU 2017• M.Tech- in Computer Science & Engineering from DSCE, B'LORE, VTU 2007• B.E- in Computer Science & Engineering from East point College of Engg., Bangalore, VTU, 2004		
Personal Details		
<ul style="list-style-type: none">• Date of Birth: 19-09-1982• Hobbies: Listening to music• Languages Known : Kannada, English, Hindi		
Professional Experience		
<ul style="list-style-type: none">• Worked as Associate professor in Department of CSE, Dayananda Sagar College of Engineering from October 2004 to Jan 2018.• Worked as Professor and Head, Dept. of CSE, City Engineering College, Bangalore from February 2018 to August 2019.• Worked as Associate Professor in Department of CSE, Dayananda Sagar Academy of Technology & Management from August 2019 to February 2021.• Currently working as Professor and Head, Dept. of AIML.		
Publications		
International Journals:		
<ol style="list-style-type: none">1. Sandhya.N, Krishnan.R, D.R.Ramesh Babu, “A Language Independent Characterization of Document Image Noises in Historical Scripts”, International Journal of Computer Applications, Volume 50-No9, 2012.2. Sandhya.N, Krishnan.R, D.R.Ramesh Babu, “Feature Based Kannada Character Classification Method of Kannada Character Recognition”, International Journal of Science and Engineering Research, Volume 5, Issue 2, February 2014.3. Sandhya.N, Madhusudan.N, Krishnan.R, D.R.Ramesh Babu, “Handwritten Kannada Character Recognition using Zonal Features and Multi-class SVM”, ICPRMSP'15,		

International Journal of Applied Engineering Research (IJAER), Volume 9, Number 20 (2014) Special Issues.

4. Sandhya N, Rahul Bant, Krishnan.R, D.R.Ramesh Babu, "HMM based – Character Recognition for online Handwritten Indic Scripts", International Journal of Engineering Research and Technology, Volume. 4, Issue. 06, June 2015.
5. Sangeetha Kancharla, Sandhya.N, D.R. Ramesh Babu, "Slack Stealing query scheduling to meet deadlines of real time applications in WSN's", International Journal of Electrical Engineering and Education, Volume 2, Issue 4, April 2015.
6. Chandana P, Sharada Preeti, H. Amrutha , Ramesh M , Sandhya.N, "SVM Based Classification Approach For Identifying Bacterial And Fungal Diseases In Plant Leaves", International Journal of Latest Technology in Engineering, Management & Applied Science, Volume VII Issue VI June 2018.
7. Sandhya N, Krishnan R, Ramesh Babu D R, Bhaskara Rao N, "An Efficient Approach for Handling Degradation in Character Recognition", International Journal for Advanced Intelligence Paradigms, Vol. 14, issue 1-2, 2019, Elsevier (Scopus). DOI:10.1504/IJAIP.2019.102960.
8. Sandhya N, Krishnan R, D R Ramesh Babu, "A Framework for Degraded Kannada Character Recognition", ICIPCN 2020, **Image processing and capsule Network book series, volume 1200, Chapter 67, Springer Nature.** https://doi.org/10.1007/978-3-030-51859-2_67
9. Sandhya N, Anirudh Marathe, JS Dawood Ahmed, Aman Kumar, Harshith R, "Convolutional Neural Network Based Approach to Detect Pedestrians in Real-Time videos", International Journal of Innovative Technology and Exploring Engineering, VOL-10, Issue-1, OCT 2020.
10. K A Aditya Srinivas, Dhanush K, Chanchal Soni, Sandhya.N, "Fabric defect detection using deep learning techniques and RPCA", International Journal of Advanced Research and Innovative Ideas in Education- Vol-7 Issue-4 2021.
11. Aditya Singh, Bhavya Pandey, Devashish Dana, Harsh Vikram Singh, Sandhya N, "Implementing Real Time Vehicle Speed Estimation Techniques", International Journal of Advances Research and Innovative Ideas in Education, Page 247-250, Vol-7 Issue-4 2021.
12. H Vaishnavi, Sandhya N, "ON-TIME: The Idea For Text And Post Automation", International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), Vol 9, Issue 7, July 2022
13. Sandhya N, Harshit Wadhwani , Aditya Bhardwaj , Shipra Sinha, Sejal Kaur Virdi , Priyansh Kapadia , Yamini Mandagiri, "A Study on Real time video analysis for vehicle traffic movement", International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), Vol 9, Issue 12, December 2022.
14. Niranjan Krishna, Anvith Nayak, Sana Badagan, Chethan Jetty, Sandhya N, "A study on Web Scraping", International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), Vol 9, Issue 12, December 2022.
15. Deeksha R, Monish RK, Bharath PR, Anubhav Sanket, Sandhya N, "A study on the effectiveness and satisfaction level of students on adaptive learning", International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), Vol 9, Issue 7, August 2022
16. Kavya Sree, Mohan S Hadadi, Sneha A, "A Study On AI Based Erp Solution ", International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), Vol 9, Issue 9, September 2022
17. H. Vaishnavi, Mohammed Zabiullah C, Nihal Ranjan Gowda, K Tarun Sai Teja, "A Study On Optical Character Recognition And Its Tools", International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), Vol 9, Issue 9, July 2022.

18. A S Navyashree, Adya H S, K Vaishnavi, Aditya Shetty, Sandhya N, "A Study on GAN Networks", International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), Vol 9, Issue 9, July 2022.
19. Aryaman Misra, Anoop A T, Sandhya N, "A Study on Identifying and Categorising Students based on Personal Learning Traits for Adaptive Learning Systems", International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), Vol 9, Issue 9, September 2022.
20. Seetharamaraju S V, Aditya M N, Sandhya N, "A study on various approaches to RASA chatbot - A study", International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), Vol 9, Issue 9, September 2022.

Dr. Sandhya N Google Scholar: Citations: 45, H-index: 3.

International Conferences:

21. Sandhya.N, Krishnan.R, D.R.Ramesh Babu, Pianka Das, "A Comprehensive pre-processing approach for digital preservation of documents", Elsevier Proceedings of International Conference on Emerging Research in Computing, Information, Communication and Applications-(ERCICA-14), volume 3, page10.
22. Sandhya N, Krishnan.R, D.R.Ramesh Babu, "A Novel Local Enhancement technique for rebuilding Broken Characters in a Degraded Kannada Script", IEEE International Advance Computing Conference 2015.
23. Sandhya N, Krishnan R, "Broken Kannada Character Recognition- a Neural Network based approach", IEEE International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) March 2016.
24. Altaf Patel, Aparna.V.P, Apoorva.C.G, Piyush Kataria, Sandhya N. "An Efficient way of Filtering sensitive messages Using N-gram technique over Social Media", International conference on Multimedia Processing, Communication and Information Technology, MPCIT, 8th and 9th, June, 2018. JNNCE, Shivamoga, Karnataka, India. DOI:16.10089.IJSRR.2018.V7I06.5245.2393
25. K A Aditya Srinivas, Dhanush K, Chanchal Soni, Sandhya.N, "A Survey on Fabric Defect Detection and Related Techniques", 2nd International Conference on Futuristic Trends in Embedded Systems and Networking ICFTEN-2021, 7th and 8th July.
26. Aditya Singh, Bhavya Pandey, Devashish Dana, Harsh Vikram Singh, Sandhya.N, "Real Time Vehicle Speed Estimation Techniques – A survey", ICGP-2021.

National Conferences:

1. Deepthi P Hudedagaddi, Deepa S, Nayana S, Sandhya.N, "Network security Using Neural Cryptography", 24th CSI students convention, 2010 [Best Paper prize].
2. Amitash Ramesh, Soumya Ramesh, Varsha Bhat K, Sandhya.N, "Network Communication using the Point-to-Point protocol", 24th CSI students convention, 2010.
3. SaiMahita, Anushree G, Akshaya R, Madhura Pujary, Sandhya N, "Breast Cancer detection using AI Techniques", Proceedings of 33rd CSI Karnataka Student Convention, 28th and 29th Feb 2020.
4. Anirudh Marathe, JS Dawood Ahmed, Harshith R, Aman Kuar, Sandhya N, "Real-Time Pedestrian detection using Machine Learning Techniques", Proceedings of 33rd CSI Karnataka Student Convention, 28th and 29th Feb 2020.
5. Likitha V, Aishwarya R, Akshya Ganji, Sandhya N, Shylaja B, "Smart Parking Slot Management System", Proceedings of 33rd CSI Karnataka Student Convention, 28th and 29th Feb 2020.
6. Nagabhishek H, Priya S, Sheeba Azmi, Vinay M S, Sandhya N, "Search for Exoplanets", Poster presentation, 33rd CSI Karnataka Student Convention, 28th and 29th Feb 2020.

Conference Attended

- Attended and Presented on “A Novel Local Enhancement technique for rebuilding Broken Characters in a Degraded Kannada Script”, at BMS college of Engineering, IACC- 2015
- Attended and Presented on “A Comprehensive pre-processing approach for digital preservation of documents”, at Nitte Meenakshi Institute of Technology, ERCICA-2014
- Attended and Presented on “Broken Kannada Character Recognition- a Neural Network based approach”, at DMI College of Engineering, Chennai, India, IEEE ICEEOT-2016.
- Attended and Presented on “A Framework for Degraded Kannada Character Recognition”, at Vivekanandha College of Technology for Women, Chennai, ISMAC-CVB 2019.
- Attended as Session Chair of IEEE International Conference on “ Disruptive Technologies for interdisciplinary research and Applications” , DSI, Bangalore, CENTCON 19-21 Nov 2021,

Seminar Attended

- Participated in webinar on “A new era of Data Science” organized by Raja Rajeshwari College of Engineering, 26th May 2020.
- Participated in NAAC sensitization program organized by IQAC, DSATM, 19th August 2021.
- Participated in webinar on “Women rights” organized by NSS unit DSATM, 3rd July 2020.
- Participated in e-quizz on NAAC organized by IQAC DSATM, 31st July 2020.
- Participated in webinar on “A new era of Data Science” organized by Raja Rajeshwari College of Engineering, 26th May 2020.
- Participated in webinar on “Convolution Neural Networks Introduction, Implementation and Application” organized by SJCIT, 23rd May 2020.
- Participated in webinar on “Enhance NAAC Grading / NIRF Ranking by International Educational Standard –ISO 21001:2018” organized by PS Quality Certifications, 9th Sept 2020.
- Participated in Seminar on “Cultivating Character” organized by Character Solutions International, 7th August 2010.

Workshop Attended

- Attended Training Program on Data Analytics with Python and AI delivered by Electro Cloud labs from 29th – 31st March 2021.
- Participated in webinar on “Use of Mobile Applications for Digital Payment and E-Governance Services” organized by IETE, 26th DEC 2020.
- Organized and attended workshop on DBMS project using PhP and Java from Nov 20th to 22nd 2020.
- Organized 5-Day Faculty Development (Webinar) program on “Research Focus in Computer Science” held at DSATM on 8th June to 12th June 2020.
- Attended workshop on Intellectual Property Rights organized by MBWARE labs on 23rd Nov 2019.
- Coordinated workshop on “Artificial Intelligence and Machine Learning “conducted by GEEKS Technologies Pvt. Ltd. New Delhi in association with IIT-Delhi from 23rd to 27th Sept 2019
- Participated in 3 day workshop on Research Methodology and Latex organized by VTU e-learning Centre, Mysuru from 20th – 22nd December 2016.
- Participated in workshop on Digital Image Processing Using Matlab organized by DSCE, from 19th – 23rd September 2016.
- Attended workshop on “High Impact Teaching Skills” conducted by DSCE, on 29th and 30th July 2011.
- Participated in AICTE sponsored “National workshop on Image Processing & Computer Vision” organized by DSCE, from 2nd – 4th June 2010.
- Participated in Conference workshop ICSE -2010 organized by DSCE, on 24th April 2010.
- Participated in Mission 10x workshop organized by Wipro, 25th – 29th April 2011.
- Participated in National workshop on Image Processing & Computer Vision organized by DSCE, from 16th – 17th October 2008.
- Participated in workshop on Research Methodologies organized by PESIT, from 24th – 25th January 2008.

Patents published with All Details

- Patent filed in the field of IOT dated 26/02/2020 “High Speed and secure back propagation learning using upright partitioned data with IOT”. Application no. 202141010390
- Patent filed in the field of Character Recognition dated 12/03/2021 “System and method for handling degradation in character recognition”. Application no. 202041008031
- Patent published in Interdisciplinary field dated 05/05/2023 “ Ambulance with drone traffic clearing system”, Application No.: 202341028128

Consultancy Amount Fetched with Details

- Received Product Consultancy from GEEKS Technologies Private Ltd. in collaboration with IIT Delhi.
- Received Product Consultancy from NCDRC in collaboration with MHRD.
- Received Product Consultancy from Electro cloud labs, Hyderabad in collaboration with Centre of Excellence for Cloud based Data Science labs, DSATM.

Awards and Recognition

- Best Professional Performer, Dept. of Artificial Intelligence & Machine Learning, DSATM, 2022.
- Best Professional Performer, Dept. of Artificial Intelligence & Machine Learning, DSATM, 2021.

- Best Professor in Computer Science & Engineering Studies, Dewaang Mehta National Education Leadership Awards 2019.
- Best paper award for “Network security Using Neural Cryptography”, 24th CSI convention, 2010 [Best Paper].
- Chief guest-Keynote speaker for “Inter collegiate tech fest techno binge 2K21” on 25th of June 2021, at Maharani Lakshmi Ammanni College.
- National Advisory committee member of 2nd International Conference on Futuristic Trends in Embedded Systems and Networking (ICFTEN-2021).
- Guest Lecture on AI & ML Applications in various fields at DSBA, Bangalore on 26th of October 2021.

Academic Activity

- Heading Department of Artificial Intelligence and Machine Learning
- Guiding Research scholars:
 1. Akshitha Kalkeri, Assistant Professor, BNMIT, B'lore.
 2. Archana Bhat, Assistant Professor, CEC, B'lore.
 3. Raghava M S, Assistant Professor, DSATM, B'lore.
- Faculty In charge for Centre of Excellence for cloud based Data Science using Machine Learning Lab, DSATM.
- Coordinator for NCDRC Labs: internships, consultancy, projects, certification programs.
- NAAC IQAC member at Dayananda Sagar Academy of Technology and Management
- AICTE NISP Institutional main coordinator, DSATM
- SPOC Infosys Springboard- DSATM
- Reviewer Easy chair conferences and journals
- Editorial Member of SCIREA Journal of Information Science and Systems Science.
- Co-ordinated for National level workshop on AI and ML DSATM.
- Educator for UiPath Robotic Process Automation certification at DSATM.
- Project proposal on “An automated watering system as per requirements for agricultural crops using IOT and weather prediction techniques assisted by mobile application”, submitted to VGST, Feb 2022.
- FDP proposal on “Computational Mathematics perspective in Artificial Intelligence and Machine Learning”, submitted to VGST FEB 2022.
- Project Proposal on “Cloud based Learning & Storage Management System” March 2021 in VTU grants.
- Project Proposal on ‘Centre for Data Science Excellence’ applied in VGST 2021.
- Project Proposal on ‘Smart Safety Band for Elderly’ to SEED DST during Oct 2019
- Project Proposal on ‘Smart bins for Waste management’ to TEQIP cell VTU submitted during Sept 2019
- Project Proposal on ‘Air filters for Air Pollution’ to TEQIP cell VTU submitted during Sept 2019
- Project Proposal on ‘Anti-Smuggling system for essential trees’ to RGSF/F VGST during Dec 2019.

Faculty Development Activity/Workshops

- Attended FEP on Python programming conducted by Infosys pvt. Ltd. From 17th oct to 22nd oct 2022
- Organized Hands-on workshop on Internet of Things and its Application, for 3rd sem AIML students, DSATM from 3rd-4th Dec 2021
- Completed Coursera course on Python Basics delivered by University of Michigan - 2021

- Attended AICTE FDP on “IOT Framework Development for Agriculture Sector” from 6/9/2021 to 10/9/2021.
- Attended AICTE FDP on “Artificial Intelligence in Energy Sector: Opportunities and Challenges” from 9/8/2021 to 13/8/2021.
- Attended three day National Level FDP on “Mobile Application Development” from 22nd Mar to 24th Mar 2021
- Attended Twelve day FDP sponsored by DST – New Delhi on “Entrepreneurship and Innovation” from 22nd Feb to 06th Mar 2021
- Attended Five day National Level FDP on “Machine Learning and Deep Learning with H2O.ai” from 28th Jan to 1st Feb 2020.
- Attended National Level Online Faculty Development Program on Python Programming organized by Govt. college for women, Kolar held from 5th -11th June 2020
- Attended ISTE state level Faculty Convention on 9th DEC 2017.
- Attended FDP on “Big Data and IOT” conducted by DSCE from 29th to 31st Jan 2015.
- Attended Microsoft Research India organized “Techvista10” on 11th June 2015.

Contact Details

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 Professor and Head,
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 Dayananda Sagar Academy of Technology & Management
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 Bengaluru-560082
 Mail ID: hodaiml@dsatm.edu.in, dr.sandhya1909@gmail.com