




DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)
Opp. Art of Living, Udayapura, Kanakapura Road, Bangalore- 560082
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
Accredited NBA, NAAC with A+, New Delhi

Educational Details

Faculty Name	Dr. SUMAIYA MN	
Designation	Associate Professor	
Educational Qualification	Ph.D	
Experience in Years	17.5years	
Area of Interest	SAR Image Processing, Remote Sensing, Statistical modeling, Machine learning	
Email ID	drsumaiyamn@gmail.com drsumaiyamn@dsatm.edu.in	

- ✓ Ph.D , Jan. 2018 at Anna University, TamilNadu.
- ✓ M.E., done at Anna University, 2004.
- ✓ B.E., done at Madurai Kamaraj University, TamilNadu.

Personal Details

- Date of Birth: 07.07.1978
- Hobbies: Reading stories, articles
- Languages Known: English, Tamil

Professional Experience

- DSATM, Bangalore, Associate Professor Aug. 2018 – till date
- Researcher in Department of ECE, Mepco Schlenk Engineering college, Sivakasi from Jan.2014 to Jan.2018.
- HKBK College of Engineering, Bangalore Asst. Professor Jan. 2008- Aug.2012
- PSR Engineering College, Sivakasi Lecturer Oct' 2004 to Dec' 2007
- Velammal Engineering College, Chennai Lecturer June '2004 – Oct' 2004

Publications

International Journals:

Number of SCI Journals-6 (cumulative Impact factor-13.548)

1. "Logarithmic Mean based Thresholding for SAR Image Change Detection", IEEE Geoscience and Remote Sensing Letters, 13(11), Nov. 2016, 1726-1728, *IF-3.966*, SCI, Scopus Indexed-46 citations
2. "Gabor filter based Change Detection in SAR Images by KI Thresholding", Optik, Elsevier, 130, Feb. 2017, 114-122, *IF-2.443*, SCI, Scopus Indexed- 25 citations
3. "SAR image despeckling using heavy tailed Burr distribution", Signal, Image and Video Processing, International Journal, Springer, 11 (1), Jan.2017, 49-55, *Impact*

factor – 2.157, SCI, Scopus Indexed – 10 citations

4. “Comparative study of statistical modeling of wavelet coefficients for SAR image despeckling”, International Journal of Wavelets, Multiresolution and Information Processing (IJWMIP), World Scientific, 15 (1), 2017, 1750003 (18pages), *IF-1.403*. SCI, Scopus Indexed *-4-citations*
5. “Satellite Image Change Detection using Laplacian-Gaussian Distributions”, Wireless Personal Communications- An International Journal- Springer, 97 (3), Dec. 2017 , 4621–4630, *IF-1.671*, SCI, Scopus Indexed- *2 citations*
6. “Unsupervised Change Detection of Flood affected areas in SAR Images using Rayleigh based Bayesian Thresholding”, IET Radar, Sonar & Navigation, 12(5), 515 - 522 , April 2018, *IF – 1.908*, SCI, Scopus Indexed- *12 citations*
7. Book Title: Human Behaviour Analysis Using Intelligent Systems; Chapter title- Human Emotion Classification Using EEG Signals by Multivariate Synchro Squeezing Transform ISBN:978-3-030-35138-0, Chapter NO. 9, Vol.6, 2019, Springer, 3 **citations**
8. Smart Robotic Arm Based Waste Segregation System”, International Journal of Science, Engineering & Management, Vol.5, Issue 1, Jan. 2020.
9. “Water Quality Assessments Using Remote Sensing Images and Analog Sensors”, Journal of Remote sensing GIS and Technology, Vol.6, Issue 2, June. 2020.
10. “A Survey on Different Modulation Techniques in Satellite Miniature Technology”, Journal of Telecommunication Study, vol.5, Issue 2, June 2020.
11. “Automatic Movable Smart Road Dividers- IOT based solution to Traffic Congestion problems”, International Journal of Innovative science and Research Technology, Vol.5, Issue 6, June 2020, ISSN: 2456-2165
12. “Literature Survey on Student Grade Calculation using Optical Character Recognition based Image Processing Techniques”, Journal of VLSI Design and Signal Processing, e-ISSN: 2581-8449 Volume-7, Issue-1 (January-April, 2021).
13. Comparative Study on Artificial Intelligence Based Real Time Voice Augmentation Applications, Journal of VLSI Design and Signal Processing (e-ISSN: 2581-8449), Vol 7, No 1 (2021).
14. Automatic Number Plate Recognition for Intelligent Transport System, Journal of Image Processing and Artificial Intelligence, e-ISSN: 2581-3803, Volume-7, Issue-3 (September-December, 2021), pp-24-30.
15. Face Recognition Based Unsupervised Attendance File Generation Using Local Binary Pattern Histogram, Journal of VLSI Design and Signal Processing (e-ISSN: 2581-8449), Volume-7, Issue-3 (September-December, 2021), pp-28-35.

Book Chapter:

1. Book Title: Human Behaviour Analysis Using Intelligent Systems; Chapter title- **Human Emotion Classification Using EEG Signals by Multivariate SynchroSqueezing Transform** ISBN:978-3-030-35138-0, Chapter NO. 9, Vol.6, 2019, Springer, 3 **citations**

International Conferences:

1. “Design of QMF using WLS method”, International conference-ICISPR’04, Feb.2004, 1, Pg:57.
2. “Optimization Approach for designing QMF”, National Conference-NCICCA’05, April.2005, 1, Pg:168-171.
3. “Efficient Optimization Design of QMF”, National Conference-NACTECIT’09, May.2009, 1.
4. “DTCWT Based SAR Image Despeckling Using Multivariate Statistical Theory”, International Conference-ICCCIT’12, June.2012, 1, Pg:58-61.

5. "Image Despeckling Using Statistical Modeling and Hybrid Thresholding", International Conference-ICMCBIR'12, July.2012, 3, Pg: 16.
6. "Performance Measures of Image Despeckling Using Statistical Modeling and Hybrid Thresholding", International Conference-ICCTEM'12, July.2012, 1,Pg: 13.
7. "Unsupervised Edge Enhancement algorithm for SAR images using exploitation of Wavelet Transform Coefficients", IEEE International Conference-ICCNT-2014, Dec.2014, 1, Pg:52, **3 citations**
8. "CETM: A Cost Effective Traffic Management to enhance IOT driven 5G Communication Systems", International Conference on Electronics, Communication and Aerospace Technology ICECA-2019", 12-14 June 2019, Hotel Arcadia- RVS group of Institutions, Coimbatore.

National Conferences:

1. "Waste Segregation using smart Robotic ARM", National Conference on Convergence of Science, Technology and Management NCCSTM- 2019", 10th May 2019 at DSATM.
2. "Static Object & Human Detection using Deep Learning with RF controlled UGV", National Conference on Convergence of Science, Technology and Management NCCSTM- 2019", 10th May 2019 at DSATM.
3. "Waste Segregation using smart ARM" in the National Conference on Convergence of Science, Technology and Management NCCSTM-2019, held on 10th May 2019 at DSATM, Bangalore.
4. "Static object & Human detection using Deep learning with RF controlled UGV" in the National Conference on Convergence of Science, Technology and Management NCCSTM-2019, held on 10th May 2019 at DSATM, Bangalore.
5. "IOT Deployed Automatic Movable Smart Road Dividers To Aovid Traffic Problems" in the National E-conference on NCCSTM-2020, held on 27th May 2020 at DSATM, Bangalore.
6. "Water Quality Detection Using Remote Sensing Images and IOT", in the National E-conference on NCCSTM-2020, held on 27th May 2020 at DSATM, Bangalore.
7. "Automation of Student Grade Calculation Using OCR, Image Processing Techniques and Cloud Computing", in the National E-conference on NCCSTM-2021, held on 10th July 2021 at DSATM, Bangalore.
 "Real Time Interactive Voice Augmentation Using Artificial Intelligence and Audio Processing", in the National E-conference on NCCSTM-2021, held on 10th July 2021 at DSATM, Bangalore.

Awards

- Gold Medalist in DECE
- 20 Lakhs VGST KFIST L1 Funded Project.
- Guided project titled Agri-Invest App for Vishwakarma Awards 2021- shortlisted for South-West Regional level Convention

Academic Activity

- **List of journals Reviewed:**
- Reviewed a paper in IEEE Geoscience and Remote Sensing.
- Reviewed a paper in IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing.
- Reviewed a paper in Elsevier Optik- International journal for Light and Electron

Optics.

- Reviewed a paper in Taylor & Francis International Journal for Remote Sensing and Remote Sensing Letters.
- Reviewed a paper in SPIE Optical Engineering.
- Reviewed a paper in IJPRAI –International Journal of Pattern Recognition and Artificial Intelligence.
- Reviewed 15 papers in IEEE sponsored International Conference ICATIECE-2019.
- Reviewed a paper in Taylor & Francis International Journal for Remote Sensing (2019).
- Reviewed a paper in Taylor & Francis Remote Sensing Letters (2019).
- Reviewed a paper in International Journal of Wavelets, Multiresolution and Information Processing, World Scientific(2019).
- Reviewed a paper in Defense Science Journal (2019).
- Reviewed a paper in IET Image Processing and added in publons (2020).
- Reviewed a paper in IEEE Transactions on Geoscience and Remote Sensing (2020)
- Reviewed a paper in Taylor & Francis International Journal for Remote Sensing (2020)
- Reviewed a revised paper in IEEE Transactions on Geoscience and Remote Sensing (2021)
- Reviewed a revised paper in Taylor & Francis International Journal for Remote Sensing (2021)
- Reviewed a paper in MAT journals (2021)
- Reviewed a paper in Defense Science Journal (DSJ) (2021).
- Reviewed a revised paper in Taylor & Francis International Journal for Remote Sensing (Sep.2021)
- Reviewed two papers in Taylor & Francis International Journal for Remote Sensing (Oct.2021)
- Reviewed a revised paper in Electronic Letters (Oct.2021)

Editorial Board Member:

1. Serving as Editor in Journal of VLSI Design and Signal Processing (e-ISSN: 2581-8449);
<https://matjournals.com/Editorial-Journal-of-VLSI-Design-and-Signal-Processing.html>
2. Serving as Editor in Journal of Image Processing and Artificial Intelligence (e-ISSN: 2581-3803); <https://matjournals.com/Editorial-Journal-of-Image-Processing-and-Artificial-Intelligence.html>

Faculty Development Activity

1. Two days State level workshop on ‘Digital Signal Processors’, August 2006.
2. One Day workshop on ‘ORCAD PSPICE’, December 2004.
3. Workshop on “Train The Trainer” on VHDL on January 2009.
4. Six Days Workshop “Highly Impact Teaching Skills” conducted by WIPRO under Mission 10X programme.
5. Two days technical seminar on “Recent Trends in Pattern Recognition and Machine Learning Techniques” on September 19-20 at NMIT Bangalore, 2014.
6. One Day Workshop on “Research Enhancement” on 2nd July 2015.
7. TEQIP sponsored Two Days National Workshop on “SAR (Synthetic Aperture Radar) Image Processing, at Thiagarajar College of Engineering on 7th & 8th August 2015.

8. TEQIP-3 sponsored Two days workshop on “Advanced Multi Domain System Modelling using OpenModelica”, on 26 & 27 November 2018 at EEE/ EIE Dept. of BMSCE.
9. One day Seminar on “Developing and Deploying Deep Learning Algorithms using MATLAB” at Concord Hotel, Bangalore organized by MATHWORKS on 29 November, 2018.
10. Five Day FDP program on “Embedded Systems Designs, IOT & IOT Security Protocols” at DSATM, Jan 16- 20, 2019, Bnagalore.
11. Three Day NAAC workshop on 31st Jan-2nd FEB, 2019 @ DSATM.
12. One day Seminar on “Research Publications, Grants & IPR” by Technical Institute for Engineers on March 8th 2019.
13. Three day Training Programme on IPR with special focus on Prior Art Search at KSCST training center, IISc campus, Bangalore on 13th to 15th of June 2019.
14. Five Days FDP on “Graphical Programming, Data Acquisition and Hardware Programming using NI LabVIEW”, 28th June – 2nd July at DSATM, Bangalore.
15. Three Days National Workshop on “ Design and Development of Nano Satellite” from 3rd-5th July, 2019, at DSU, Bangalore in association with IEEE Bangalore section & Planet Aerospace, Bangalore.
16. Five Days FDP on “Artificial Intelligence - MLT & Deep Learning using LabVIEW”, 28th January – 1st Feb. 2020 at DSATM, Bangalore.
17. One hour webinar on “Water Treatment Modeling Tools for Removing PFAS and Other Contaminants”, April 29, 2020, EPA water research, US.
18. Webinar on “Data Science with Design Thinking Mindset”, May 31st , 2020, IEEE, RITB, Ramaiah Institute of Technology, Bangalore.
19. Virtual FDP on “Neural Networks and Deep Learning using Python”, held from 1st June to 5th June, 2020 at school of computing and information technology , Reva University, Bangalore.
20. Webinar on Overview of IPR and Journey of Patenting, 6th June, 2020 at Jyothy Institute of Technology, Bangalore.
21. Webinar on Satellite Image Processing- Feature Extraction, 27th June 2020, at Bangalore Technological Institute, Bangalore.
22. Online 3 days workshop on LATEX, 29th June 2020 to 1st July 2020, at AMC Engineering College, Bangalore.
23. Webinar on “How to write research papers and publish in International Journals”, 9th July 2020, at Dr. Ambedkar Institute of technology, Bangalore.
24. Five days Online FDP on “Exposure & Rejuvenation of Technologies in Changed Era of the World”, July 6-10, 2020, at Raj Kumar Goel Institute of Technology, Ghaziabad, India.
25. Webinar on “Artificial Intelligence and Machine Learning : It’s Carrier prospects after Pandemic”, 17th July 2020, at Bangalore Technological Institute, Bangalore.
26. Webinar Series on "The Space Scientists - Mission Adithya", organized by the *Jansons Institute of Technology* and *Galileo Science Club* held on 22.07.2020.
27. Webinar Series on "The Space Scientists - Satellite for Public Health", organized by the *Jansons Institute of Technology* and *Galileo Science Club* held on 23.07.2020.
28. Webinar Series on "The Space Scientists - Big Questions About the Cosmos", organized by the *Jansons Institute of Technology* and *Galileo Science Club* held on 24.07.2020
29. Webinar Series on "The Space Scientists - "Astronomical Timekeeping : A Primer"", organized by the *Jansons Institute of Technology* and *Galileo Science Club* held on 25.07.2020.

30. Five Days Online Workshop on Emerging Trends in Robotics by Manipal Institute of Technology A Constituent Unit of Manipal Academy of Higher Education (MAHE), Manipal, Karnataka on 21-25, July 2020.
31. Five Days Virtual FDP on Skills and Opportunities in VLSI, from 27th July – 31st July, 2020 at DSATM, Bangalore.

2020-2021

32. 5 days FDP on “Signal Processing Applications” held from 21st to 25th Sept. 2020 organized by Department of Instrumentation & Electronics Engineering, College of Engineering and Technology (Autonomous), Bhubaneswar, Odisha.
33. Six Days Online Short Term Training Programme on "Intellectual Property for Engineers & Scientists, in AICTE, New Delhi under AQIS sponsored, from November 9th 2020, to November 14th 2020 @ CMRIT, Bangalore.
34. Six Days Online Short Term Training Programme on "Intellectual Property for Engineers & Scientists-phase 2, in AICTE, New Delhi under AQIS sponsored, from November 23rd 2020, to November 28th 2020 @ CMRIT, Bangalore.

2021-2022

35. 5 days FDP on “Future Advancements in the field of Telecommunication and Embedded System” held from 24th to 30th August 2021 organized by Department of Electronics & Communication Engineering, at Raj Kumar Goel Institute of Technology, Ghaziabad, India.
36. Five Days Virtual FDP on Microchip Training, from 24th September – 28th September, 2021 at DSATM, Bangalore.
- 37.

Course Certificates:

1. Programming for Everybody (Getting Started with Python) an online non-credit course authorized by University of Michigan and offered through Coursera.

Administrative Activity

1. IPR cell ECE Co-Ordinator 2018- till now
2. Final Year ECE Seminar Co-Ordinator 2018-2019.
3. Final Year ECE Project Co-Ordinator 2019-2020, 2020-2021
4. Associated as Advisor with Staff Selection Commission Interview Board at Office of the Regional Director, Staff Selection Commission, Kendriya Sadan, Bangalore..
5. Experienced as Chief Examiner and Examiner for Paper valuation for B.Tech, B.E courses of various universities.
6. Experienced as External Examiner for conducting the practical examinations for B.E and B.Tech courses.
7. Involved in various confidential work in Examination Branches of Anna University, VTU university and Dr. MGR university.
8. Involved in managing all the academic matters like helping in preparing college magazine, examination schedule, guiding student projects, preparing time table, organizing guest lectures, seminars, workshops etc.
9. Co-ordinated a technical talk on ‘Space Communications- Telemetry, Tracking and Telecommand’ by Mrs. Smitha KS, Deputy Project Director, ISRO, Trivandrum on 18th April 2019 for prefinal year students at ECE dept, DSATM.
10. Coordinated project Symposium at DSATM on 27-11-2019
11. One Day FDP on IPR organized at DSATM on October 2019.
12. Organized Webinar on IPR Towards Copyrights And Patent Filing on 2-5-2020

13. Co-ordinated National e-conference at DSATM On 27-5-2020 at department level
14. 3 Day FDP on “Converting Ideas into Patents” on 16th, 23rd and 29th August 2020
Organized by IPR Cell-DSATM in association with Embware Labs Pvt. Ltd, Bangalore.
15. Organized Online Guest Lecture has been conducted on “Deep Learning Workflows and Applications using MATLAB”By Mr. Rakshith B S, Senior Application Engineer, CoreEL Technologies, Bangalore. Date: 17-11-2020|Time:2-3PM, Link to join: <https://tinyurl.com/y684r7y3>, Platform: Microsoft Teams.
16. Coordinated project Symposium at DSATM on 19-12-2020
17. Co-ordinated One Day online workshop on Intellectual Property Rights, in association with Embware Labs Pvt. Ltd, Feb.13, 2021.
18. Co-ordinated one day Industry conclave with Industry Delegates at DSATM on 27th March 2021.
19. Co-ordinated webinar on Patent Portfolio Valuation on world Intellectual Property Day 1st May 2021, 12pm -1pm Organized by IPR Cell, IIC & IQAC -DSATM in association with Embware Labs Pvt. Ltd, Bangalore.
20. Co-ordinated National e-conference at DSATM On 10-7-2021 at department level.
21. Co-ordinated Intercollegiate Project Competition (IPC) at DSATM on 17-07-2021.

Roles Played at DSATM, Bangalore

- Served as Associate Professor for 3+ years and taught theory and Laboratory subjects.
- IPR Coordinator for 3 years.
- Project Coordinator for 2 years, making students to participate in Intercollegiate Project Competitions, various Student’s project funds ie KSCST, various Awards like **Vishwakarma Award**, Involve them in contributing to Conferences & Journals.
 - **KSCST students Grant 2019-2020 (Granted)**
 - **KSCST students Grant 2020-2021 (Granted & Best Project of the Year 2021 Award)**
 - **VTU students Grant-2020-21(two projects Granted)**
- Seminar Coordinator for one year.
- NBA criteria Coordinator
- NAAC criteria Coordinator.

Patent Details

Title: SSD based Automated Crowd social distance monitoring and counting with RF controlled UGV filed with Application Number- 202141007502, Reference Number/ Allication type- E-101/1555/2021-CHE

Professional Membership

1. Life member of ISRS (L-5789)
2. Life member of IUPRAI (L-252)

Funded Projects

1. VGST sponsored 2 years project on “**Advanced Image Processing Laboratory to develop signal / Image processing algorithms, SAR Image Change Detection algorithms to monitor critical changes**” for the year 2018-2019 under **KFIST LI** for **20Lakhs**.

Contact Details

Designation : Associate Professor / ECE
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Bengaluru-560082
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Phone No.: 9739308688

My Vision

More than transmitting knowledge, teaching is about inspiring others to discover their purpose and potential. As an Associate professor, I have the opportunity to impact the lives of students, and I take that role seriously. Through teaching I dedicate myself to inspiring, challenging, and cultivating the minds of my students. Always establishing and maintaining professional ethics.

Galileo Galilei is quoted as saying, “You cannot teach a man anything; you can only help him find it within himself.”