

Dr. A. K. JAYANTHY

Professor and Head | Department of Medical Engineering
Sri Ramachandra Faculty of Engineering and Technology, Sri Ramachandra Institute of Higher Education
and Research, Porur, Chennai, India
email:jayanthyak@sret.edu.in, jayanthi.velumani@gmail.com , Cell No-+919841265925

EDUCATION

	INDIAN INSTITUTE OF TECHNOLOGY, MADRAS	Chennai, India
2007-2012	Ph.D. Biomedical Engineering <i>Thesis: Assessment of capillary blood flow variations in normal and diseased real/phantom tissue using laser speckle contrast imaging technique</i>	
2002-2004	INDIAN INSTITUTE OF TECHNOLOGY, MADRAS M.Tech. Biomedical Engineering <i>Project: Development of electrolarynx and voice amplifier for laryngectomees</i>	Chennai, India
1986-1990	GOVERNMENT COLLEGE OF TECHNOLOGY B.E. Instrumentation and Control Engineering <i>Project: Car service module</i>	Coimbatore, India
1984-1986	ST. MARYS GIRLS HIGHER SECONDARY SCHOOL +2, HSC	Mettur Dam, India
1984	CSI GIRLS MATRICULATION HIGHER SECONDARY SCHOOL 10 th Standard	Chennai, India

ADDITIONAL QUALIFICATION

2013	SRM UNIVERSITY Certificate course in Total Quality Management for Teachers	Chennai, India
------	--	-----------------------

RESEARCH EXPERIENCE

2007-2012	Biomedical Engineering Doctoral Research(July 07 to Dec 2011) Indian Institute of Technology, Madras Advisors: Dr. N. Sujatha & Dr. M. Ramasubba Reddy <ul style="list-style-type: none">• Developing a laser speckle contrast imaging technique(LASCA)• Application of LASCA to study blood flow in phantoms• Application of LASCA to study blood flow in normal and diseases human subjects
2002-2004	Biomedical Engineering Masters Research(July 2002 to May 2004) Indian Institute of Technology, Madras Advisor: Dr. M. Ramasubba Reddy <ul style="list-style-type: none">• Developed an Electrolarynx and voice amplifier for Laryngectomees• Electrolarynx is a medical device used to produce clearer speech by those who have lost their original voicebox, usually due to cancer of the larynx• A battery powered Electrolarynx with a voice amplifier was built to aid laryngectomees in enhancing their speech ability• The device was tested on laryngectomee subjects and was found successful
1986-1990	Instrumentation and Control Engineering Undergraduate Research Government College of Technology Advisor: Dr.T.Shanmugam <ul style="list-style-type: none">• A car service module was built to measure the dwell angle in cars during servicing

**TEACHING
EXPERIENCE**

2023 –Till Date **Professor and Head, Computer Science and Medical engineering** **Chennai, India**
Sri Ramachandra Faculty of Engineering and Technology(15/06/2023 to Till date-8 Months)

2015 - 2023

Professor, Department of Biomedical Engineering
SRM University (17/06/2015 to 14/06/2023- 8 years) **Chennai, India**

- Teaching and research activity
- Framing of curriculum and syllabus
- Conducting national and international conferences and workshops
- Handling theory and laboratory classes related to Biomedical Engineering
- UGC coordinator
- NAAC and ARIIA coordinator
- Exam cell coordinator
- MOU coordinator
- Department website maintenance in charge

2012 – 2015

Professor and Head, Department of Electronics & Instrumentation Engineering
SRM University (01/07/2012 to 16/06/2015-3 years) **Chennai, India**

- Overall administration of the department
- Guided student teams for International CanSat and URC competitions
- Preparation for NAAC visit
- Reinforced research activities in the department
- Revamp of curriculum for B.Tech-Electronics and Instrumentation Engg
- Created LaTeX format for B.Tech project report

Assistant Professor(SG)and HOD i/c, Department of Electronics & Instrumentation Engineering SRM University (28/01/2012 to 30/06/2012- 5 months) **Chennai, India**

- Overall administration of the department
- Development of laboratory facilities in the department
- Development of department library facility
- Guided student teams for National level Embedded systems competition NI-Yantra

Assistant Professor(SG), Department of Instrumentation and Control Engineering
SRM University (04/01/2012 to 27/01/2012- 1 month) **Chennai, India**

- Revamp of curriculum for B.Tech-Electronics and Instrumentation Engg

2006-2007

Assistant Professor, Department of Instrumentation & Control Engineering
SRM Institute of Science & Technology(01/05/2006 to 19/07/2007-1 year 3 months) **Chennai, India**

- Framed curriculum and syllabus for M.Tech- Biomedical Engineering
- As visiting faculty for the Biomedical Engineering department at Anna University taught 'Sensors and Applications' for M.Tech students
- Handled theory and labs related to Instrumentation Engineering and Biomedical Engineering

2005-2006

Senior Lecturer, Department of Instrumentation & Control Engineering
SRM Institute of Science & Technology(01/04/2005 to 30/04/2006- 1 year 1 month) **Chennai, India**

- Established a new biomedical instrumentation lab
- Framed curriculum and syllabus for B.Tech –Biomedical Instrumentation and Engineering
- Handled theory and labs related to Instrumentation and Biomedical Engineering

- 1999-2005** **Lecturer, Department of Instrumentation & Control Engineering**
SRM Institute of Science & Technology (11/06/1999 to 31/03/2005- 5 years 10 months)
Chennai, India
- Guided a student project on 'Intelligent Insulin Injection System' sponsored by Tamilnadu State Council for Science and Technology
 - Handled theory and labs related to Instrumentation Engineering and Biomedical Engineering
 - Developed Microprocessor Engg lab
- 1996-1999** **Lecturer, Department of Instrumentation & Control Engineering**
Adhiyamaan College of Engineering (17/7/1996 to 04/05/1999- 3 years)
Hosur, India
- Handled theory and labs related to Instrumentation Engineering
- 1992-1993** **Lecturer, Department of Telecommunication Engineering**
BMS College of Engineering(29/9/1992 to 20/11/1993- 1 year 3 months)
Bangalore, India
- Introduced courses related to Instrumentation pertaining to Telecommunications

INDUSTRIAL EXPERIENCE

- 1990-1992** **Tuticorin Thermal Power Project**
Tuticorin, India
- Technical Assistant(1/6/1990 to 30/5/1992- 2 years)**
- Testing, calibration and commissioning of various instruments in Meter Relay Testing Station(MRTS)

RESEARCH PROJECT

- Received a funding of Rs. 49,000/- from SRMIST for the project titled "Development of low cost, portable device for detection of diabetes mellitus using salvia" in Nov 2019.
- "Construct the intelligent biomedical cloths using wearable strain sensor and analyze the trunk kinematics in neurological rehabilitation" in collaboration with Dept of Physiotherapy, SRM Medical College Hospital and Research Centre sanctioned for an amount of Rs. 2.75 Lakhs by SRMIST.

FACULTY ABROAD PROGRAM

- Visited the Department of Anaesthesiology and Pain Medicine, Inselspital, Bern University Hospital, University of Bern, CH-3010 Bern, Switzerland from 27/10/2013 to 16/11/2013 for prospective academic research collaborations in the field of pulmonary physiology (modeling and simulation of normal and ab-normal lung function) sponsored by SRM University.

ONLINE COURSES COMPLETED

- Successfully completed the online self-paced "Workplace Communication" course conducted by IITBombay on IITBombayX MOOC platform, from 15 July 2020 to 15 November 2020.
- Successfully completed the 4 weeks SWAYAM online certification course on "Biomedical Nanotechnology" conducted by IIT Roorkee, Aug-Sept 2019.
- Successfully completed the 8 weeks SWAYAM online certification course on "Introduction to Biostatistics" conducted by IIT Bombay, Aug-Sept 2019.
- Successfully completed the 4 weeks NPTEL online certification course on "Patent drafting for beginners" conducted by IIT Madras, Jan-Mar 2019.
- Successfully completed the 12 weeks NPTEL online certification course on "Control systems" conducted by IIT Madras, Jul-Oct 2018.
- "Elements of learner centric MOOCs" conducted by IIT Bombay from 03/05/2018 to 23/05/2018
- "Fundamentals of digital image and video processing" offered by Northwestern University, USA in Coursera.org(July 2, 2015)

PATENTS APPLIED AND

- Patent Application No. 202241058352 dated 12.10.2022 Title: "A SYSTEM AND A

GRANTED

METHOD FOR CLASSIFYING AUTISM SPECTRUM DISORDER (ASD) USING ELECTROENCEPHALOGRAPH SIGNALS" has been filed at the IP India office and published on 21/10/2022.

- Patent Application No: 202041054355 Dated: 14.12.2020 Title: "**A MASK AND A MONITORING SYSTEM FOR RESPIRATORY MONITORING OF A USER**" has been filed at the IP India office and published on 18/12/2020. **Patent granted on 19/07/2022. Patent no 401571.**
- Patent Application No: 201741037955 Dated: 26.10.2017 Title: "**A SYSTEM FOR DETECTING DROWSINESS AND METHOD THEREOF**" has been filed at the IP India office and published on 30/11/2018. **Patent granted on 01/11/2021. Patent no 380999.**

FIIP

- Undergone Faculty Induction Immersion Program(FIIP) at Perfint Healthcare Pvt Ltd, Chennai from 10/12/2018 to 14/12/2018.
- Undergone Faculty Induction Immersion Program(FIIP) at Capgemni Pune and Chennai from 16/06/2022 to 22/06/2022

BOOK CHAPTER

- **A.K. Jayanthi** and Qaysar Mohi-Ud-Din, Early detection of Autism Spectrum Disorder using EEG, MRI and Behavioral data: A Review, Assistive Technology Intervention in Healthcare, Edited By Shruti Jain and Sudip Paul, CRC Press, Jan 2022.
- Lakshmi Prabha. P, **A. K Jayanthi** and Kumar Janardanan, "M-mode Carotid artery image classification and risk analyzes based on machine learning and deep learning techniques" Lecture Notes in Networks and Systems, Aug 2022.

HONORS

- Was invited to the Silver Jubilee celebration of the Centre for Medical Electronics, Anna University, Guindy, Chennai on **9th November 2023**. I was honored during the inaugural function for my continuous support and contributions to the Centre for Medical Electronics during the past 25 years. **The award was presented by Thiru.Ma.Subramanyan, Minister for Health and Family Welfare of Tamil Nadu.**
- Received the best paper award for the paper titled "Identification and Classification of Malignant Skin Lesions of The Anterior Torso using CNN" in the International Conference on Biomedical Smart sensors and Systems(BMSSS2021), organized by Department of ECE, BME and Medical Electronics, Saveetha Engg College, Chennai , 7th and 8th May 2021.
- Received the best paper award for the paper titled "Automatic Detection and Staging of Diabetic Retinopathy using Deep Learning Techniques" in the International Conference on Biomedical Smart sensors and Systems(BMSSS2021), organized by Department of ECE, BME and Medical Electronics, Saveetha Engg College, Chennai , 7th and 8th May 2021.
- Received the best paper award for the paper entitled "Design of Patient Monitoring System Using Internet of Things Transceiver" in the 2nd International Conference on Advances in Mechanical Engineering(ICAME-2018) organized by department of Mechanical Engineering, SRMIST, Kattankulathur, Tamilnadu, India, 22-24 March 2018.
- Received the first prize in cooking without fire competition at the International Women's day celebration held on 6th March 2018 at SRMIST, Kattankulathur, Tamilnadu, India.
- Received gold medal for presentation of the paper entitled, "Assessment of ankle brachial index in diabetic patients-A pilot study to screen peripheral arterial disease cardiovascular prognosis and amputations" in the Research Day presentation at SRMIST, Kattankulathur, Tamilnadu, India on 1st Mar 2018.
- Received the IET CLN Er. D. A. Rajan Promotional Award 2014 from IET, Chennai Network.
- SPIE scholarship in Optical Science and Engineering, 2010 (one among 135 worldwide winners and one among 5 recipients from Asia)
- SPIE best paper award at the International Conference on Optics and Photonics (ICOP2009) held at CSIO, Chandigarh, India, 2009.

LEADERSHIP

- **Organised a 1 day workshop** for school students, **“Hands on training in LabVIEW and molecular visualization basics for school students”** on 3rd Nov 2023 in the Department of Medical Engg, **Sri Ramachandra Faculty of Engineering and Technology, SRIHER, Porur.**
- **Organised a 2 days National Conference, “National Conference on Biomedical Engineering and Technology (NCBET23)”** on 20th and 21st April 2023 in the department of Biomedical Engineering at SRM Institute of Science and Technology University, Kattankulathur-603203, Tamilnadu, India.
- Delivered a guest lecture on the topic **“Biomedical Optics-Opportunities, Challenges and Future”** at Parul University, Gujarat on 9th Sept 2021.
- **Organised a 2 days workshop on “Robotics and AI in Healthcare”, at the Department of Biomedical Engineering, SRMIST on 26th and 27th Aug 2021.**
- **Organised a 2 days workshop on “Medical Devices Entrepreneurship, Intellectual Property Rights and Patents”, at the Department of Biomedical Engineering, SRMIST on 18th and 19th Feb 2021.**
- Delivered a guest lecture on the topic **“Emerging fields in Biomedical Engineering Research”** at the department of Biomedical Engineering in Sri Shakthi Institute of Engineering and Technology, Coimbatore on 11th Feb 2021.
- Delivered a lecture on the topic **“Recent Emerging Fields in Biomedical Engineering Research”** in the Lecture Series (ECE's LS#05) held during 13th to 18th July 2020 organised by Department of Communication Engineering, Sathyabama Institute of Science and Technology, Chennai on 17th July 2020.
- Delivered a lecture on the topic **“Biomedical Optics”** in the Faculty Development Programme on **“Recent trends in biomedical field – Research Perspective”** held during 26th to 30th April 2020 organised by Dr.NGP Institute of Technology, Coimbatore on 29th April 2020.
- **Organised a 2 days workshop on “Medical Device Product Development and IPR”, at the Department of Biomedical Engineering, SRMIST on 7th and 8th Feb 2020.**
- Delivered a lecture on the topic **“Sensors in Neural Engineering”** in the DHR-ICMR sponsored five days National Level Workshop titled **“Translational Neural Engineering”** held during 11th to 15th March organized by Manakula Vinayagar Institute of Technology, Pondicherry on 13th March 2019.
- Delivered a lecture on the topic **“Biomedical optical imaging”** in the two days seminar on **“Recent trends in biomedical image processing”** organized by the Department of Electronics and Instrumentation Engineering, KCG College of Technology, Karapakkam, Chennai on 29th Nov, 2017.
- Chief guest for the inauguration of the two days seminar on **“Recent trends in biomedical image processing”** organized by the Department of Electronics and Instrumentation Engineering, KCG College of Technology, Karapakkam, Chennai on 29th and 30th Nov, 2017.
- Volunteered as a Session Chair in ICARM 2017, an **“International Conference on Automation, Robotics and Mechatronics”** organized by the Department of Mechatronics Engineering, SRM University during 5th and 6th May 2017.
- Volunteered as a guest speaker at the 2 days national level workshop on **“Research Oriented Approaches on Biomedical Image Processing using Matlab”** on 11th and 12th April 2017 conducted by the Department of Electronics and Instrumentation Engineering at BS Abdur Rahman University, and lectured on the topic **“Microcirculation Imaging of Normal and diseased real/phantom tissues using laser speckle contrast imaging technique”**.
- Worked as an organiser in Bioyatra 16, a three day National Level Medical devices Techno Management Fest conducted by Department of Biomedical Engineering, SRM University on 18th, 19th and 20th Aug 2016.
- Delivered a lecture titled **“Recent advances in MEMS sensor technology for biomedical applications”** on 1st June 2016 in the TEQIP II sponsored STTP on **“Recent advances in MEMS based virtual instrumentation and applications (MBVIA'16)”** during 27th June to 2nd July 2016 conducted by the department of Electronics and Instrumentation Engineering, Pondicherry Engineering College, Pondicherry.
- Volunteered as a Session Chair in CISMA15 a **“National Conference on Instrumentation Systems, Measurement and Automation”** conducted on 7th and 8th Jan 2016 organized by

the department of Electronics and Instrumentation Engineering, Pondicherry Engineering College, Pondicherry.

- Worked as the Organizing Secretary in Bioyatra 15, a three day National level Biomedical Fest on India's Innovation in Healthcare conducted by Department of Biomedical Engineering, SRM University on 23rd, 24th and 25th Sept 2015.
- Organised a 1 day workshop on "Hands on training in Matlab & LabVIEW basics for school students" +1 and +2 school students on 30/08/2014 at SRM University, Kattankulathur-603203, Tamilnadu, India.
- Organised a 1 day workshop on "Hands on training in Matlab & LabVIEW basics for school students" +1 and +2 school students on 31/08/2013 at SRM University, Kattankulathur-603203, Tamilnadu, India.
- Organised a 2 day National conference on "Emerging Innovations in Electronic Instrumentation and Automation-EIEIA13" on 12th and 13th September 2013 at SRM University, Kattankulathur-603203, Tamilnadu, India.
- Volunteered as a guest speaker at the workshop on "Efficient document writing using LaTeX" conducted by the Department of Computer Science and Engineering, SRM University and discussed about "Implementation of B.Tech project reports in LaTeX format" on 6th August 2013 at SRM University, Kattankulathur-603203, Tamilnadu, India.
- Organised a 2 day workshop on "Hands on training on Matlab and its Applications" held on 20th to 21st of September 2012 at SRM University, Kattankulathur-603203, Tamilnadu, India.
- Rendered services as Vice President at IIT Madras SPIE student chapter from March 2011 to Jan 2012.
- Volunteered at the "State Level Refresher Course on Physics and Chemistry for Higher Secondary School Teachers" held on 21st to 23rd September 2006 and discussed about "Applications of Physical Science in Medical Imaging" at SRM Engineering College, Kattankulathur-603203, Tamilnadu, India.
- Organized a short term training program for faculty members on "Recent Trends in Biomedical Instrumentation" on 25th and 26th November 2005 at SRM Institute of Science & Technology, Kattankulathur-603203, Tamilnadu, India.

PROFESSIONAL MEMBERSHIP

- Fellow Member of the Institute of Biomedical Engineers(India)
- Fellow Member of the Institute of Engineers (India)
- Life Member of the Indian Society for Technical Education
- Life Member of Biomedical Engineering Society of India
- Member of IEEE-EMBS
- Member of Indian Science Congress
- Member of IAENG
- Member of Force Biomedical Engineering

JOURNAL PUBLICATIONS

1. S. Jothiraj and **A. K. Jayanthi**, "Design and development of artificial intelligence based application programming interface for early detection and diagnosis of colorectal cancer from wireless capsule endoscopy images", International Journal of Imaging Systems and Technology, Vol 34(02), March 2024.
2. S. Jothiraj and **A. K. Jayanthi**, "Automatic polyp semantic segmentation using wireless capsule endoscopy images with various convolutional neural network and optimization techniques: a comparison and performance evaluation", Biomedical Engineering-Applications Basics and Communications, Vol 35(06), Sept 2023.
3. Qaysar Mohi-Ud-Din and **A. K. Jayanthi**, "Wavelet scattering Transform and Deep Learning Networks Based Autism Spectrum Disorder Identification Using EEG Signals",

- Traitment du Signal, Vol 39(6), Jan 2023.
4. Qaysar Mohi-Ud-Din and **A. K. Jayanthi**, "Detection of Autism Spectrum Disorder by Feature Extraction of EEG Signals and Machine Learning Classifiers", Biomedical Engineering- Applications Basics and Communications, Vol 35(01), Dec 2022.
 5. P. Lakshmi Prabha, **A. K. Jayanthi**, "Risk analysis and classification of myocardial infarction from carotid intima media thickness of b-mode ultrasound image using various machine learning and deep learning techniques, Biomedical Engineering- Applications Basics and Communications, Vol 34(5), 2250031-1 to 2250031-8, June 2022
 6. Qaysar Mohi-Ud-Din and **A.K. Jayanthi**, "Automated classification of Autism Spectrum Disorder using EEG signals and Convolutional Neural Networks", Biomedical Engineering- Applications Basics and Communications, Vol 34(2), 2250020-1 to 2250020-8, March 2022.
 7. P. Lakshmi Prabha, **A. K. Jayanthi**, C. Prem Kumar, Balaji Ramraj, "Prediction of cardiovascular risk by measuring carotid intima media thickness from an ultrasound image for type II diabetic mellitus subjects using machine learning and transfer learning techniques", The Journal of Supercomputing, **77**, 10289–10306, March 2021.
 8. A.Jasmine and **A.K.Jayanthi**, "Sensor based system for automatic cough detection and classification", Test Engineering and Management, Vol 83, 13826-13834, March-April 2020.
 9. G.V. Tharun Prasad and **A.K.Jayanthi**, "Electroencephalogram based truly wireless prosthetic arm", Journal of International Pharmaceutical Research, Vol 46(4), 60-64, July 2019.
 10. B. Sanchana and **A.K.Jayanthi**, "Design and development of spirometer using Labview", Journal of International Pharmaceutical Research, Vol 46(4), 65-68, July 2019.
 11. Malhar Pathak and **A.K.Jayanthi**, "Development of a single channel brain computer interface system for detection of drowsiness", Biomedical Engineering: Applications, Basis and Communications, Vol 29(3), 1750019-1 to 1750019-7, 2017.
 12. V.Ashwin Kumar and **A.K.Jayanthi**, "Finite element analysis of normal tibiofemoral joint and knee osteoarthritis: a comparison study validated through geometrical measurements", Indian Journal of Science and Technology, Vol 9(S1), Dec 2016
 13. Mythilli Reguraman, Zafar Faraz, Shalomi Coonghe, Khushboo Agarwal and **A K Jayanthi**, "Bioelectrical impedance based personnel recognition device", International Journal of Emerging Technology in Computer Science & Electronics (IJETCSE) ISSN: 0976-1353 Volume 21 Issue 3 – April 2016.
 14. K.Elavarasi and **A.K.Jayanthi**, "Soft sensor based brain tumor detection using CT-MRI", International Journal of Science, Engineering and Technology Research, 2(10), 1947-1950, 2013.
 15. **A.K.Jayanthi**, N.Sujatha and M.Ramasubba Reddy, "Noninvasive assessment of static scatterer concentration in phantom body fluids using laser speckle contrast analysis technique", Optics and Lasers in Engineering, 49(4), 553-556, 2011.
 16. **A.K.Jayanthi**, N.Sujatha and M.Ramasubba Reddy, "Measuring blood flow: Techniques and applications-A review", International Journal of Research and Reviews in Applied Sciences, 6(2), 203-216, 2011.

CONFERENCE PROCEEDINGS

1. Jothiraj S, **Jayanthi A K** and Sameera Fathimal M. "Automated Polyp Segmentation in Wireless Capsule Endoscopy Images Using Modified U-Net Architecture to Diagnose Colorectal Cancer." In 2023 Integration of Computational Intelligent System (ICICIS2023), 1st to 4th November 2023, School of Engineering, Ajeenkya D Y Patil University, Pune, Maharashtra, India
2. Jothiraj S, and **Jayanthi A K**. "Advancement of Wireless Capsule Endoscopy from The Genesis to Present." In 2023 International Conference on Multidisciplinary Research in Technology and Management (MRTM23), 22nd to 23rd September 2023, New Horizon College of Engineering, Bengaluru, Karnataka, India.
3. Qaysar Mohi ud din and **A. K. Jayanthi**, "Autism Spectrum Disorder detection technique using EEG and Convolution Neural Networks", AIP Conference Proceedings 2603, 020019 (2023) doi: <https://doi.org/10.1063/5.0128348>
4. Jothiraj S, and **Jayanthi A K**. "Localization and Semantic Segmentation of Polyp in an Effort of Early Diagnosis of Colorectal Cancer from Wireless Capsule Endoscopy Images." In 2022 Seventh International Conference on Parallel, Distributed and Grid Computing (PDGC), pp. 749-754. IEEE, 2022. <https://doi.org/10.1109/PDGC56933.2022.10053299>

5. T. U. Jayakrishnan and **A.K.Jayanthi**, "Emotion Recognition from EEG Signals Using GRU and LSTM Recurrent Networks", National Conference on Recent Research in Advanced Computing-22, 27th May 2022, SRMIST, Ramapuram.
6. Qaysar Mohi ud din and **A. K. Jayanthi**, "Autism Spectrum Disorder detection technique using EEG and Convolution Neural Networks", International Conference- Biomedical Engineering and Computing Technologies (ICBECT'22), 21st - 25th March 2022, Dept. of Biomedical Engineering, SRM Institute of Science and Technology.
7. P. Lakshmi Prabha and **A. K. Jayanthi**, "Classification and risk analyzing of heart failure based on Arterial Stiffness Indices Parameters of common carotid artery using machine learning and deep learning techniques", International Conference in Expert Clouds and Applications(ICOECA2022), organized by RV Institute of Technology and Management, Bengaluru, 3rd and 4th Feb 2022.
8. Qaysar Mohiuddin and **A K Jayanthi**, "Autism Spectrum Disorder classification using EEG and 1D-CNN", 10th International Conference on Internet of Everything, Microwave Engineering, Communication and Networks (IEMECON 2021), University of Engineering and Management, Jaipur. 1st and 2nd December, 2021.
9. Souvik Kumar Purkayastha, Hafsa M Kureshi, Aakash C and **A K Jayanthi**, "Identification and Classification of Malignant Skin Lesions of The Anterior Torso using CNN" in International Conference on Biomedical Smart sensors and Systems(BMSSS2021), organized by Saveetha Engg College, Chennai , 7th and 8th May 2021.
10. Disha R. Jain, Diya Samanta and **A K Jayanthi**, "Automatic Detection and Staging of Diabetic Retinopathy using Deep Learning Techniques" in International Conference on Biomedical Smart sensors and Systems(BMSSS2021), organized by Saveetha Engg College, Chennai , 7th and 8th May 2021.
11. S.Yasar and **A.K.Jayanthi**, "Non invasive monitoring of glucose and oxygen level in blood" in International Conference on Recent Advancements in Biomedical Engineering(ICRABE21), organized by Bharath Institute of Higher Education and Research, Chennai, 18th to 19th March 2021.
12. Qaysar Mohiuddin and **A K Jayanthi**, "Detection of Autism Spectrum Disorder from EEG signals using pre-trained deep convolution neural networks" in International Conference on Biosignals, Images and Instrumentation(ICBSII 2021), organized by SSN College of Engineering, 25th to 27th March 2021.
13. Qaysar Mohiuddin and **A.K.Jayanthi**, "Feature extraction of EEG signals using wavelet transform for classification of autism spectrum disorder", 12th National conference on recent advancements in biomedical engineering 2020(NCRABE 20), Bharath Institute of Higher Education and Research, Chennai, 3rd Dec 2020.
14. A. Jasmine and **A.K.Jayanthi**, "Sensor based system for automatic cough detection and classification", International Conference on Computing and Control, Sai Ram Engineering College, Chennai, 28-29 Feb 2020.
15. **A.K.Jayanthi**, Subhiksha Somanathan and Shivani Yeshwant, "Analysis of Obstructive Sleep Apnea using ECG Signals", Sixth International Conference on Bio Signals, Images, and Instrumentation (ICBSII-2020), SSN College of Engineering, Chennai, 27th and 28th Feb 2020.
16. **A.K.Jayanthi**, N. Balaji, Mahima Balasubramanyam, Adhiti Krishnan, and A. M. Rajita Rhapsaela. "Assessment of ankle brachial index in subjects and its relationships with age and body mass index-A pilot study", AIP Conference Proceedings, 24th June 2019.
17. **A.K.Jayanthi** and P.Lakshmi Prabha, "Comparison of biochemical parameters with carotid intima media thickness in cardiovascular disease subjects-A pilot study", National Conference on Cardiolipicon-Lipids in Cardiac Health, SRM Medical College Hospital & Research Centre, Kattankulathur, Tamilnadu, India, 3rd May 2019.
18. **A.K.Jayanthi**, N. Balaji, Mahima Balasubramanyam, Adhiti Krishnan and Rajita Rhapsaela A M. "Assessment of ankle brachial index in subjects and its relationship with age and body mass index-a pilot study", 11th National Conference on Mathematical Techniques and Applications-2019(NCMTA2019), SRMIST, Kattankulathur, Tamilnadu, India, 11-12 Jan 2019.
19. Deepak, Neeraj Kumar, Pazhaniappan S and **A. K. Jayanthi**, "ECG monitoring in an Android application", International Conference on Advanced Scientific Innovation in Science, Engineering and Technology(ICASISSET-2018), Bharath Institute of Higher Education and Research, 11th -13th April 2018.
20. K. Mythili and **A. K. Jayanthi**, "Design of Patient Monitoring System Using Internet of Things Transceiver", in the 2nd International Conference on Advances in Mechanical

- Engineering(ICAME-2018) organized by department of Mechanical Engineering, SRMIST, Kattankulathur, Tamilnadu, India, 22-24 March 2018.
21. R. Kumaravel, **A.K.Jayanthi** and P Jeremia, "Assessment of sepsis in ICU patients using Mamdani fuzzy inference system", Research day, SRMIST, Kattankulathur, Tamilnadu, India on 1st March, 2018.
 22. K. Mythili and **A. K. Jayanthi**, "Design of a telecare system using Wi-Fi", Research Day, SRMIST, Kattankulathur, Tamilnadu, India on 1st Mar 2018
 23. **A. K. Jayanthi**, "Assessment of ankle brachial index in diabetic patients-A pilot study to screen peripheral arterial disease cardiovascular prognosis and amputations", Research Day presentation at SRMIST, Kattankulathur, Tamilnadu, India on 1st Mar 2018.
 24. Pathak Malhar Mayurbhai and **A.K.Jayanthi**, "Development of a real time single channel brain computer interface system for detection of drowsiness", WiSPNET2017, Chennai, March 22-24, 2017.
 25. Pathak Malhar Mayurbhai and **A.K.Jayanthi**, "Design A Dual Channel EEG Acquisition System for Separation of Alpha, Beta and Theta Waves" in the Research Day held on 28th February 2017 at SRM University, Kattankulathur, Tamil Nadu.
 26. V. Ashwin Kumar and **A. K. Jayanthi**, "Classification of MRI Images in 2D Coronal View and Measurement of Articular Cartilage Thickness for Early Detection of Knee Osteoarthritis", IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT-2016), Bangalore, May 20-21, 2016.
 27. V. Ashwin Kumar and **A. K. Jayanthi**, "Subject-specific finite element analysis of knee joint and medical image analysis technique for early detection of knee OA", in the Research Day held on 29th February 2016 at SRM University, Kattankulathur, Tamil Nadu.
 28. **A.K.Jayanthi**, N.Sujatha and M.Ramasubba Reddy, "Noninvasive blood flow assessment in diabetic foot ulcer subjects using laser speckle contrast imaging technique", SPIE Photonics West, San Francisco, February 1-6, 2014.
 29. **A.K.Jayanthi**, N.Sujatha and M.Ramasubba Reddy, "Noninvasive capillary blood flow measurement:Laser speckle and laser Doppler", International Conference on Bioinformatics, Computational Biology and Biomedical Engineering(ICBCBBE2011), Paris, France, June 24-26, 2011.
 30. **A.K.Jayanthi**, N.Sujatha and M.Ramasubba Reddy, "Laser speckle contrast imaging for perfusion monitoring in burn tissue phantoms", The 5th Kuala Lumpur International Conference on Biomedical Engineering(BIOMED2011), Kuala Lumpur, Malaysia, June 20-23, 2011.
 31. N. Sujatha, B S Suresh Anand, **A K Jayanthi**, V B Narayanna Murthy, V.Sheshadri and Richa Poddar, "Non invasive assessment of tissue oxygenation and blood flow as a tool for staging diabetes", Proceedings of Optics 11, NIT Calicut, India, May 23-25, 2011.
 32. **A.K.Jayanthi**, N.Sujatha and M.Ramasubba Reddy, "Capillary blood flow monitoring and assessment of tissue health: The role of laser speckle contrast imaging (LSCI) technique", 50 Years of Lasers, Indian Institute of Technology, Madras, India, Oct 30, 2010.
 33. **A.K.Jayanthi**, N.Sujatha and M.Ramasubba Reddy, "Laser speckle contrast imaging based blood flow analysis in normals and in patients with skin diseases". International Conference on Computer, Electrical and Systems Science and Engineering (ICCESSE2010), Singapore, August 25-27, 2010.
 34. **A.K.Jayanthi**, N.Sujatha, and M.Ramasubba Reddy, "Laser speckle contrast imaging for analysing static scatterer concentration in phantom body fluids," presented at the Int. Conf. on Optics and Photonics(ICOP2009), CSIO, Chandigarh, India, Oct. 30-Nov. 1, 2009.
 35. M.Sundeeep Krishna, **A.K. Jayanthi**, C.Divakar and R.Mekhala, "Design and fabrication of a new electrolarynx and voice amplifier for laryngectomees", IEEE Engineering in Medicine and Biology 27th Annual Conference, Shangai, China, September 1-4, 2005.
 36. **A.K.Jayanthi**, "Spiked biopotential electrodes using MEMS technology for Electroencephalogram recording", The 2nd National Conference for Research Scholars on Applications of Emerging Technologies, Hosur, India, March 2005.

BOS MEMBER DETAILS

- Nominated as Member of the UG/PG Board of Studies member in Biomedical Engineering at Pondicherry University
- BOS member at PKIET, Karaikal-Biomedical Engg

INSTITUTIONAL AND PROFESSIONAL SERVICES

- BOS member at Easwari Engineering College, Chennai-Biomedical Engg Dept
- BOS member at Sri Manakula Vinayagar Engineering College, Puduchery- Biomedical Engg Dept
- DC member at Anna University, CEG Campus
- DC member at Anna University, PSG College of Technology,
- DC member at Kongu Engineering College.
- Reviewer for Research on Biomedical Engineering
- Reviewer for Physical and Engineering Sciences in Medicine
- Reviewer for the Springer Nature Journal :Signal, Image and Video Processing
- Reviewer for the Journal Biomedical Engineering-Applications Basics and Communications
- Reviewer for the Journal Significances of Bioengineering & Biosciences (SBB), Crimson Publishers.
- Reviewer for Journal of Infrared Physics and Technology, Elsevier.
- Reviewer for the 5th International Conference on Biosignals, Images and Instrumentation(ICBSII2020) conducted by SSN college of Engineering.
- Reviewer for Journal of Biomedical Engineering-Applications, Basis and Communications, World Scientific Publishing.
- Past Faculty advisor SPIE Students Chapter, SRM University
- Past Board of studies member in the department of Electronics and Instrumentation Engineering at SCSCMV University, Kancheepuram, Tamilnadu, India.
- Reviewer for International Journal of Signal and Imaging Systems Engineering, Inderscience Publications.
- Doctoral committee member at Anna University(Dept of BME), Chennai, Tamilnadu, India.
- Past Doctoral committee member at SRM University, Chennai, Tamilnadu, India.
- Past editorial committee member in "VRUKSHA" Journal published by SCSVMV University, Kancheepuram, Tamilnadu, India.
- Advisory committee member in the "The Second International Conference on Intelligent Robotics, Automation and Manufacturing(IRAM) 2013" held on 16th to 18th December 2103, at Indian Institute of Technology, Indore, India.
- National advisory committee member in NCAICA'14 a "National Conference on Advancements in Instrumentation, Control and Automation" conducted by Thangavelu Engineering College, Chennai, India.
- National advisory committee member in CISMA'15 a TEQIP sponsored "National Conference on Instrumentation Systems, Measurement and Automation" conducted by the Department of Electronics and Instrumentation Engineering, Pondicherry Engineering College, Pondicherry on 7th and 8th Jan 2016.

Research Scholar Details

Sl. No	Dégré	Name	Year of Admission	Institute	Status
1.	Ph. D-Part Time	Dr.P.Lakshmi Prabha	2016	SRMIST	Completed
2.	Ph. D-Full Time	Mr.Qaysar Mohiuddin	2019	SRMIST	Completed

Areas of Interest

Image and signal processing using Deep Learning techniques, EEG Analysis using Deep Learning techniques, Biomedical Optics, Biomedical Instrumentation, Biomedical Image Processing, Noninvasive diagnostic imaging, Wearable devices.