

Dr.D.Kirubha, M.E., Ph.D



Designation: Professor

Experience: Teaching – 25 years

Specialization: : Sensor Networks, Image Processing

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Journal Publications

1. Published paper in International Journal of Advanced Computational Engineering and Networking on the topic “Thermal Imaging as a Bio metrics moves towards to Facial Signature Substantiation”, Volume 2, Issue 1, Jan 2014, **ISSN: 2320-2106.**
2. Published paper in International Journal of Advanced Computational Engineering and Networking on the topic “Improving the Performance of Video Surveillance using Decision Making Framework”, Volume 2, Issue 1, Jan 2014, **ISSN: 2320-2106.**
3. Published paper in International Journal of Advanced Computational Engineering and Networking on the topic “Image Resizing by using Saliency Detection with Selective dissimilarities technique”, Volume 2, Issue 1, Jan 2014, **ISSN: 2320-2106.**
4. Published paper in International Journal of Advances in engineering on the topic “On-Line Monitoring of Multi-View Video Summarization by Distributed View Selection Strategy Image”, Volume 1, Issue 11, Nov 2015, **ISSN: 2394-9260.**
5. Published a paper entitled “Fusion of Foreground Object in Domain Motion Information for Video Summarization” in the International Journal of Innovative Research in Computer and Communication Engineering, 2016, 4(4), 7619 – 7625 **ISSN(Online): 2320-9801**
ISSN (Print): 2320-9798 DOI: 10.15680/IJIRCCE.2016. 0404258
6. Published a paper entitled “MCCA scheduling for enhancing QoS-based video streaming for Video Surveillance Applications” in the Journal of Cluster Computing (The Journal of Networks, Software Tools and Applications) Springer, 2018, 1-11, **ISSN:1386-7857**
(Printed version); ISSN: 1573-7543 (Online version).
<https://link.springer.com/article/10.1007/s10586-018-2150-y>
7. Published paper in International Journal of Research and Analytical Reviews “Image Forgery Detection using Machine Learning”, Volume 9, Issue 3, August 2022, **E-ISSN 2348-1269, P- ISSN 2349-5138** url: www.ijrar.org

8. Published paper in International Journal of Research and Analytical Reviews “Malicious URL Detection Using Neural Model”, Volume 9, Issue 3, August 2022, **E-ISSN 2348-1269, P- ISSN 2349-5138** url: www.ijrar.org
9. Published paper in International Journal of Research and Analytical Reviews “Anomaly Detection Using Video Surveillance Applications”, Volume 9, Issue 3, August 2022, **E-ISSN 2348-1269, P- ISSN 2349-5138** url: www.ijrar.org
10. Published a paper entitled “ Integration of IoT for Industry Automation using Machine Learning Technique” in the Journal of IEEE Xplore (2022 International Conference on Digital Transformation and Intelligence (ICDI)), 2023, Electronic ISBN:979-8-3503-9700-0, Print ISBN:979-8-3503-9698-0, USB ISBN:979-8-3503-9699-7, Print on Demand(PoD)ISBN:979-8-3503-9701-7 DOI: 10.1109/ICDI57181.2022.10007229
11. Published paper in Applied and Computational Engineering “An Integrated Functionality Framework for Robust Video Streaming Heterogeneous Networks”, June 2023. DOI: 10.54254/2755-2721/6/20230850
12. Published paper in International Journal of Advance Research and Innovative Ideas in Education “Trust but Verify a Framework for the Trustworthiness of Distributed System”, VOLUME 7, Issue 1, June 2023, **IJARIE-ISSN(O)-2395-4396, ISSN 2395-4396 (Online)**, www.ijarie.com.
13. Published paper in International Journal of Advance Research and Innovative Ideas in Education “Object Detection & Segregation Using R-CNN”, Volume 7, Issue 1, June 2023, **IJARIE-ISSN(O)-2395-4396, ISSN 2395-4396 (Online)**, www.ijarie.com.
14. Published paper in International Journal of Advance Research and Innovative Ideas in Education “IoT in Indian Agriculture Using Wireless Sensors and Network”, Volume 7, Issue 1, June 2023, **IJARIE-ISSN(O)-2395-4396, ISSN 2395-4396 (Online)**, www.ijarie.com.
15. Published paper in BMC Medical Imaging “Multimodal Biomedical Image Segmentation using Multi-Dimensional U-Convolutional Neural Network”, January (2024) 24:38, **<https://doi.org/10.1186/s12880-024-01197-5>**
16. Published a paper entitled “Multi Objective Ant Colony Optimization Technique for Task Scheduling in Cloud Computing” in the Journal of IEEE Xplore 2024 3rd International Conference on Applied Artificial Intelligence and Computing (ICAAIC) 2024, Electronic ISBN:979-8-3503-7519-0 DVD ISBN:979-8-3503-7518-3 Print on Demand(PoD) ISBN:979-8-3503-7520-6 DOI: 10.1109/ICAAIC60222.2024.10575423
17. Published a paper entitled “GuavaCareNet: Empowering Guava Farms with Federated Learning for Real-Time Disease Diagnosis” in the Journal of IEEE Xplore (2025

18. Published a paper entitled “DiabEyeNet: Integrating Residual Inception Networks and Chaotic Optimization for Robust Diabetic Retinopathy Detection” in the Journal Iranian Journal of Science and Technology, Transactions of Electrical Engineering, (Springer) August 2025 <https://doi.org/10.1007/s40998-025-00897-0>
19. Published paper in International Research Journal on Advanced Engineering and Management “A Comprehensive Review of Federated Learning and Explainable AI Approaches for Privacy-Preserving Breast Cancer Detection: Advancements in Multi-Modal Data Fusion, Interpretability, and Clinical Trust”, e ISSN: **2584-2854**, Volume: 03, Issue: 09, September 2025, Page No: 2971 - 2977 <https://goldncloudpublications.com>
<https://doi.org/10.47392/IRJAEM.2025.0471>
20. Published paper in International Research Journal on Advanced Engineering Hub (IRJAEH) “A Federated Learning and Explainable AI-Enabled Multi-Modal Framework for Privacy-Preserving Breast Cancer Detection Using Capsule Networks, Transformers, and Feature Fusion with Interactive Clinician-Centric Dashboard Support”, e ISSN: **2584-2137**, Vol. 03, Issue: 09, September 2025, Page No: 3762-3769 <https://irjaeh.com>
<https://doi.org/10.47392/IRJAEH.2025.0546>
21. Published paper in International Journal of Innovative Research in Engineering “Interest-Based Career Domain Recommender Using Personality Profiling” , Volume 6, Issue 6, November – December 2025, PP: 43-46,
<https://www.doi.org/10.59256/ijire.20250606007> ISSN **2582-8746** www.theijire.com.
22. Published paper in International Journal of Recent Trends In Multidisciplinary Research “AI - Play Ground: Empowering Kids to Build and Understanding MI Apps”, November-December 2025, Vol 5 (06), 208 -211 <https://www.doi.org/10.59256/ijrtmr.20250506027>
ISSN No: 2583-0368
23. Published paper in International Journal of Recent Trends In Multidisciplinary Research “Detection of Parkinson's Disease Using Spiral Models”, November-December 2025, Vol 5 (06), 237 -247 <https://www.doi.org/10.59256/ijrtmr.20250506032> **ISSN No: 2583-0368**
24. Published paper in International Journal of Scientific Research in Engineering & Technology “Traffic and Accident Prediction in Visual Data using Deep Learning”, Volume 5, Issue 6 (November-December 2025), PP: 165-172.
<https://www.doi.org/10.59256/ijrsreat.20250506025> <https://www.ijrsreat.com/> **ISSN No:**

25. Published a paper entitled “Gastro-intestinal disease detection and classification using Taylor spotted hyena optimization algorithm enabled deep maxout networks” in the Journal of Biomedical Signal Processing and Control 116 (2026) 109523 (ELSEVIER), January 2026. <https://doi.org/10.1016/j.bspc.2026.109523>

Conference Publications

1. Presented paper on “Design of Sensor Grid” on 27th and 28th March 2008 in National Conference, at Noorul Islam College of Engineering, Nagercoil.
2. Presented paper on “Flood Detection Using High-Resolution Synthetic Aperture Radar Images” in National Conference on 5th and 6th April 2013, at Muthayammal College of Engineering, Rasipuram.
3. Presented paper on “Confiscation of Haze in Remote Sensed Imagery” in National Conference on 10th April 2013, at T.J.S Engineering College, Chennai.
4. Presented paper on “Texture Based Tissue Segmentation in Histopathological Images” in National Conference on 11th and 12th April 2013, at PSN college of Engineering and Technology, Tirunelveli.
5. Presented paper on “Improving the Performance of Video Surveillance Using Decision Making Framework” at the International Conference on Electrical, Electronics & Robotics on 20th October 2013, held at Chennai.
6. Presented paper on “Image Resizing by Using Saliency Detection with Selective Dissimilarities Technique” at the International Conference on Electrical, Electronics & Robotics on 20th October 2013, held at Chennai.
7. Presented paper on “Thermal Imaging as a Bio Metrics Moves towards to Facial Signature Substantiation” at the International Conference on Electrical, Electronics & Robotics on 20th October 2013, held at Chennai.
8. Presented paper on “Thermal imaging as a Bio metrics moves towards to Facial Signature Substantiation” in International Conference on 19th and 20th February 2014 at Tamizhan College of Engineering.
9. Presented paper on “Image Resizing by Using Saliency Detection with Selective Dissimilarities Technique Based on User Defined” in International Conference on 19th and 20th February 2014 at Tamizhan College of Engineering.
10. Presented paper on “Directional Ecological Matchup Routing in Wireless Mutimedia

Network” in National Conference on Advancements in Space Communication in Navigational Aids on 4th April 2016 at Karpaga Vinayaga College of Engineering and Technology.

11. Presented paper on “Malicious URL Detection Using Neural Model” in International Conference on Emerging Trends in Engineering, Management & Technology (ICETEMT -2022) on 21st & 22nd June 2022 at Rajarajeswari College of Engineering, Bangalore.
12. Presented paper on “Anomaly Detection Using Video Surveillance Applications” in International Conference on Emerging Trends in Engineering, Management & Technology (ICETEMT -2022) on 21st & 22nd June 2022 at Rajarajeswari College of Engineering, Bangalore.
13. Presented paper on “Image Forgery Detection Using Machine Learning” in International Conference on Emerging Trends in Engineering, Management & Technology (ICETEMT -2022) on 21st & 22nd June 2022 at Rajarajeswari College of Engineering, Bangalore.
14. Presented paper on “An Integrated Functionality Framework for Robust Video Streaming Heterogeneous Networks” in International Conference on Signal Processing and Machine Learning (CONF-SPML 2023) on 22nd November 2022.
15. Presented paper on “Integration of IoT and Machine Learning for Industry Automation in the Era of Industry 4.0” at International Conference on Digital Transformation and Intelligence (ICDI2022) on 1st & 2nd December 2022 organized by Universiti Teknologi PETRONAS (UTP), the 7th World Engineering, Science & Technology Congress (ESTCON2022) at Borneo Convention Centre Kuching, Sarawak, Malaysia.
16. Presented paper on “Trust but Verify a Framework for the Trustworthiness of Distributed System” in 5th National Conference on VLSI, Communication and Signal Processing (NCVCS – 2023) on 5th May 2023 at Rajarajeswari College of Engineering, Bangalore.
17. Presented paper on “Object Detection & Segregation using R-CNN” in 5th National Conference on VLSI, Communication and Signal Processing (NCVCS – 2023) on 5th May 2023 at Rajarajeswari College of Engineering, Bangalore.
18. Presented paper on “IoT in Indian Agriculture using Wireless Sensor Network” in 5th National Conference on VLSI, Communication and Signal Processing (NCVCS – 2023) on 5th May 2023 at Rajarajeswari College of Engineering, Bangalore.
19. Presented paper on “Multi Objective Ant Colony Optimization Technique for Task Scheduling in Cloud Computing” at the 3rd International Conference Applied Artificial Intelligence and Computing (ICAAIC 2024) organized by R P Sarathy Institute of Technology, Salem, India on 5th to 7th June 2024.
20. Presented paper on “Predicting PCOS: Machine Learning Approach” in International Conference on Recent Trends in Computational Engineering and Technologies (ICRTCET

– 2024) on 25th & 26th July 2024 at Rajarajeswari College of Engineering, Bangalore.

21. Presented paper on “Finding Suspect and Missing Person through CCTV Footages” in International Conference on Recent Trends in Computational Engineering and Technologies (ICRTCET – 2024) on 25th & 26th July 2024 at Rajarajeswari College of Engineering, Bangalore.
22. Presented paper on “Automated Detection of Down Syndrome using Optimized Convolutional Neural Networks” in the 16th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT 2025) in association with the IEEE Electronics Packaging Society and the All India Council for Technical Education (AICTE) during 06th - 11th July 2025, held at IIT – Indore, Madhya Pradesh.

Book Publications

26. Published a book chapter entitled “Smart Monitoring of Parkinson's Disease with Cloud-IoT Technologies” Chapter 9 in IGI Global 2025. DOI: 10.4018/979-8-3693-7225-8.ch009 EID: 2-s2.0-85218945929 ISBN: 9798369372258 9798369372272.
27. Published a book chapter entitled “Artificial Intelligence Framework for ISTAR Missions in Tactical Networks Using Autonomous Vehicles” Chapter 13 in IGI Global 2025. DOI: 10.4018/979-8-3693-7600-3.ch013 EID: 2-s2.0-105007711327 Part of ISBN: 9798369376003 9798369376027

Patents

1. Published a **Design Patent** in Intellectual Property India “Bluetooth Speakers with Power Bank”, August 2023. <http://ipindia.nic.in/index.html>
2. Published a **Patent** in Intellectual Property India “Enhanced Video Surveillance System for Police Cops to Monitor Unusual Activities”, September 2023. <http://ipindia.nic.in/index.html>
3. Published a **Patent** in Intellectual Property India “Enhancing ATM Security and Convenience with NFC and Fingerprint Authentication”, December 2023. <http://ipindia.nic.in/index.html>
4. Published a **Patent** in Intellectual Property India “ML-Driven IOT Platform for Personalized Health Monitoring and Predictive Diagnosis”, January 2025. <http://ipindia.nic.in/index.html>

5. Published a **Patent** in Intellectual Property India “Developing a Protocol for Link Failure Recovery and Reliable Data Delivery”, May 2022. <http://ipindia.nic.in/index.html>

Extra Co-curricular Activities:

- Attended **workshop** - ‘Computer Design and Architecture’ on 4th September 2009, at Sri Vidya College of Engineering and Technology, Virudhunagar.
- Attended **workshop** - ‘Free Open-Source Software’ on 29th and 30th September 2010, at Mepco Schlenk Engineering College, Sivakasi.
- Attended **Software Training** - ‘Object Oriented Analysis and Design using UML with Essentials of Rational Software Architect’ on 31st January to 02nd February 2011, at Sri Vidya College of Engineering and Technology, Virudhunagar.
- Attended **National Seminar**- ‘Contemporary Research Issues in Bio-Informatics and Cyber Security’ on 18th and 19th February 2011, at Sri Vidya College of Engineering and Technology, Virudhunagar.
- Attended **Conference** - ‘Emerging Trends in Computer Engineering and Technology’ on 25th March 2011, at Sri Vidya College of Engineering and Technology, Virudhunagar.
- Attended **workshop** - ‘Soft Computing’ on 20th August 2011, at Kalasalingam University, Srivilliputhur.
- Attended **workshop** - ‘**WIPRO Mission 10X**’ on 19th to 23rd September 2011, at Kalasalingam University, Srivilliputhur.
- Attended **workshop** - ‘**Advanced level of WIPRO Mission 10X**’ on 15th and 16th December 2011, at Kalasalingam University, Srivilliputhur.
- Attended **National Seminar**- ‘Research Challenges in Image Analysis and its Applications’ on 24th and 25th February 2012, at Einstein College of Engineering, Tirunelveli.
- Attended **workshop** - ‘Research Issues in Sensor and Adhoc Networks’ on 25th May 2012, at Mepco Schlenk Engineering College, Sivakasi.
- Attended **Software Training** - ‘Mat lab Programming’ on 23rd and 24th June 2012, at Anna University Chennai, Madras Institute of Technology Campus.
- Attended **workshop** - ‘Image Classification and Retrieval’ on 27th and 28th July 2012, at VIT University, Vellore.

- Attended **workshop** - 'Network Simulation Using NS2' on 09th October 2012, at Sree Sowdambika College of Engineering, Aruppukottai.
- Attended **workshop** - 'Programming Practice on Image Processing Using Matlab' on 19th and 20th September 2013, at National Engineering College, Kovilpatti.
- Attended **Industry Institution Interaction Programme** - on 20th and 23rd November 2014, at Rovani Software Solutions (P) Limited, Sivakasi.

- Attended **workshop** - ‘Advancements in Visual Sensor Network and its impact on Public Safety and Security’ on 8th and 9th January 2015, at National Engineering College, Kovilpatti.
- Attended Two Days **National Level Seminar** on “Research towards Image Processing” organized by the Department of Computer Science and Engineering from 08.06.2015 to 09.06.2015 in Einstein College of Engineering, Tirunelveli.
- Attended Two Days **workshop** on “Team Building” organized by ICTACT – Tamilnadu from 31st July to 1st Aug 2015.
- Attended two days **training program** on “Effective Public Speaking” organized by JCI Club – Virudhunagar from 25.04.2017 to 26.04.2017.
- Attended **NPTEL Online Certification Course** for “Design and Analysis of Algorithms” and successfully completed the course from July – September 2017 (8 Weeks)
- Attended Two Days **Webinar** on “Artificial Intelligence: Deep Neural Networks” TEQIP III sponsored Webinar organized by Department of Information Technology from 29.06.2020 to 30.06.2020 in Government College of Technology, Coimbatore.
- Organized a **Webinar** on “Natural Language Understanding using RASA Tool” on 02.12.2020 at Department of Information Technology, Hindustan Institute of Technology and Science.
- Attended AICTE Training And Learning (ATAL) Academy **Online FDP** on “Quantum Computing” from 07.12.2020 to 11.12.2020 at Muthayammal Engineering College (Autonomous).
- Attended **Webinar** on “Research to Patent” on 19.01.2021 at Muthayammal Engineering College (Autonomous).
- Organized a **Webinar** on “RDK-V Development using Raspberry Pi” on 04.03.2021 at Department of Information Technology, Hindustan Institute of Technology and Science.
- Attended **NPTEL Online Certification Course** for “Compiler Design” and successfully completed the course from Jan – Apr 2022 (12 Weeks)
- Attended ICT Academy **Online FDP** on “Microsoft Azure AI Fundamentals” from 14.03.2022 to 16.03.2022.

- Attended Spoken Tutorial IIT Bombay **FDP** on “Arduino” from 01.07.2022 to 15.08.2022 at ACS College of Engineering, Bangalore.
- Participated in the 48th Edition of **BRIDGE 2022** - Bengaluru (A High Impact Industry-Institute Interaction Event of India), Organized by **ICT Academy** held on 19 October 2022 at The Lalit Ashok, Bangalore.
- Participated in **IP Awareness/Training program** under the National Intellectual Property Awareness Mission on January 10, 2023, jointly organized by Intellectual Property Office and MoE's Innovation Cell, India.
- Attended **NPTEL Online Certification Course** for “Introduction to Internet of Things” and successfully completed the course from Jan - Apr 2023 (12 Weeks) Participated in the NPTEL Workshop conducted on June 24, 2023, by IIT Madras at IC & SR Auditorium.
- Attended **NPTEL Online Certification Course** for “Accreditation and Outcome Based Learning” and successfully completed the course from Aug – Oct 2023 (8 Weeks)
- Participated in the 54th Edition of **Bridge'23 - Bengaluru (Building Human Capital, Accelerating Growth, and Enabling Access)** Organized by ICT Academy held on 13 Dec 2023 at ITC Gardenia, Bengaluru.
- Attended **NPTEL Online Certification Course** for “NBA Accreditation and Teaching-Learning in Engineering (NATE)” and successfully completed the course from Jan – Apr 2024. (12 Weeks)
- Participated as a **Reviewer in the 10th International Conference** on Communication and Signal Processing - ICCSP 2024 held on 12th & 13th April 2024 at Adhiparasakthi Engineering College.
- Participated in a **5-day Faculty Development Program** on “Effective Curriculum Design and Evaluation Process for Autonomy” from 15th May to 19th May 2024 conducted by the Internal Quality Assessment Cell at Rajarajeswari College of Engineering, Bangalore.
- Participated in a **one-week Faculty Development Program** on “Microsoft Power BI Data Analyst Associate” conducted by ICT Academy from 03 Jun 2024 to 07 Jun 2024 at Rajarajeswari College of Engineering, Bangalore.
- Chaired the **session at the International Conference** on Recent Trends in

Computational Engineering and Technologies (ICRTCET – 2024) organized on 25th & 26th July 2024.

- Attended **NPTEL Online Certification Course** for “**Data Science for Engineers**” and successfully completed the course from Jul – Sep 2024. (08 Weeks)
- Participated in the 68th Edition of **Bridge'24 - Bengaluru (A High Impact Industry – Institute Interaction Event)** Organized by ICT Academy held on 27 November 2024 at The Lalit Ashok, Bengaluru.
- Attended **NPTEL Online Certification Course** for “**Introduction to Industry 4.0 and Industrial Internet of Things**” and successfully completed the course from Jan – Apr 2025. (12 Weeks)
- Received Appreciation award from NPTEL for instrumental role as **SPOC** of the **SWAYAM-NPTEL Local Chapter**, January – April 2025.
- Participated in **Mongo DB Academic Leaders Connect** – Bengaluru organized by ICT Academy & Mongo DB held on 09 August 2025 at Mongo DB office, Bengaluru.
- Participated in the 68th Edition of **Bridge'25 - Bengaluru (A High Impact Industry – Institute Interaction Event)** Organized by ICT Academy held on 07 November 2025 at The Lalit Ashok, Bengaluru.