BIO DATA

Dr.V.GOMATHI, M.Tech., PhD.,

Professor & Head,

Department of Computer Science and Engineering,

National Engineering College, Kovilpatti -628 503.

(An Autonomous Institution Affiliated to Anna University Chennai)

Mobile: (O) +91 94425 22764, (R) +91 84288 84480, +91 9486449790

Email: hodcse@nec.edu.in, vgcse@nec.edu.in

ORCID: 0000-0003-3639-485X

Scopus author ID: 56965668300

WoS Researcher ID: https://publons.com/wos-op/researcher/AAO-5172-2021/

VIDWAN Id: https://vidwan.inflibnet.ac.in/profile/211465

Researcher Id: B-8105-2013   h-index: 10, i10index: 12

Research Interests

Video Surveillance, Image Processing, Remote Sensing and Computational Intelligence

Courses Taught

- ✓ **UG:** Computer Vision, Artificial Intelligence and Robotics, Nature and Bio-inspired Computing, Social Computing, Python Programming, Data Structures, Operating Systems, Unix Internals, Java Programming, Advanced Java Programming, User Interface Design, Business Intelligence, Microprocessors and Microcontrollers

- ✓ **PG:** Deep Learning, Soft Computing, Digital Imaging, Fuzzy Logic Theory & its Applications, Machine Learning Techniques, Distributed Computing, Research Methodology

Educational Qualifications

- ✓ **Ph.D.,** 2011, Faculty of ICE, Anna University Chennai, "Multi-view based Human action recognition and behavior understanding using shape features"

- ✓ **M.Tech,** 2005, CSE, Indian Institute of Technology Madras, "Content based video indexing and retrieval system" *– First Class with Distinction - 8.44 CGPA*

- ✓ **B.E,** 1997, CSE, Thiagarajar College of Engineering, Madurai, "Image Morphing", *First Class with Distinction - 77.67%*

Work Experience @ NATIONAL ENGINEERING COLLEGE

Designation	Duration
Professor & Head	10.05.2018 - till date
Professor	13.07.2015 - 09.05.2018
Associate Professor (Sr.Grade)	13.02.2012 - 12.07.2015
Asst. Professor	01.06.2007 - 12.02.2012
Sr. Lecturer	22.05.2006 - 31.05.2007
Lecturer	15.06.1998 - 21.05.2006

Professional Memberships

- ✓ Senior Member in IEEE, Member in IEEE(CS), ISTE, IE(I)

Countries visited: INDONESIA, DUBAI

Professional Awards

- ✓ *Prof. H.N.Mahabala Endowment prize [Best M.Tech thesis] from IIT Madras in 2005.*
- ✓ *IE(I)Young Engineer Award for the year 2008-2009 from IE(I), Kolkatta.*
- ✓ *Best TNSCST Project for the year 2010-2011 from TNSCST, Chennai.*
- ✓ *Received Plaque and Certificate from Institution of Engineers India (IE(I)), Kolkata for the successful completion of IE(I) sponsored project entitled "Design of Adaptive Coal Mine Rescue Robot using WSNs" in 30th Indian Engineering Congress during December 17-20, 2015 at Guwahati, Assam.*
- ✓ *IEEE Professional achiever award for the year 2016-2017.*
- ✓ *Presented best student project among Asia Pacific region at IEEE-R10 HTC, Indonesia and received Rs.41,000/- as Travel grant from IEEE-HAC during December 2019.*
- ✓ *NVIDIA DLI Ambassador since February 2021.*
- ✓ *Faculty Mentor for IEEE-PGDSPF'21 PG-project and won II Prize worth Rs.10,000/- from IEEE Madras section during Nov 2021.*
- ✓ *Received NEC – R&D Seed Money grant of Rs.4,62,000/- for establishment of Image Processing Research Centre during .*
- ✓ *Received Best Paper Award from RUSA, Chennai at eTOTAL Conference held during Feb 2023.*
- ✓ *Elevated as IEEE Senior member since Feb 2023 based on the significant contributions to the profession.*
- ✓ *Recognized as Mentor for EPICS in IEEE Project Smart Mobile Inclusive Learning (SMILE): AI-driven multipurpose therapy for disability children – Indonesia.*
- ✓ *Faculty Mentor for IEEE-PGDSPF'23 PG-project and won I Prize worth Rs.8,000/- from IEEE Madras section during Jan 2024.*

Sponsored R&D Projects

Agency Name	Project Title	From	To	Amount (Rs.)
NVIDIA Corporation	NVIDIA GPU Grant – Academic Seed Program	Dec 2017		1,25,000
EPICS in IEEE	casTalk: A smart Cloud Platform for casual talk between normal and deaf people	Dec 2016	Mar 2018	5,24,402
IE(I), Kolkatta	Design of Adaptive Coal Mine Rescue Robot using WSNs	Apr 2014	Mar 2015	20,000
TNSCST, Chennai	RFID based traffic control and monitoring system	Aug 2010	Mar 2011	6,000
AICTE, New Delhi	Real-time Human Activity Recognition System	Aug 2007	Sep 2009	3,70,000
DST, New Delhi	Real-time Multi Human Tracking and activity recognition system	Feb 2007	Mar 2009	14,41,200

Consultancy Works

Consultancy work	Duration	Funding Agency	Amount (Rs.)
Design and Development of Virtual Assistant with AI/ML and AR tools, deployed onboard ships/submarines to support maintenance crew for Radar System	2022-2023	TRYCAE Industrial Engineering Pvt. Ltd., Trichy	2,00,000

Supervisor Recognition

✓ Recognized under Anna University Chennai since Feb 2014 [Ref. No. 2340090]

✓ PhD Scholars Awarded: 8 + 1 MS (By Research), Awaiting viva: 1 & In progress: 5

Intl. Journal Publications (SCI & Scopus Indexed)

1. Human facial expression recognition using MANFIS model, V Gomathi, K Ramar, AS Jeevakumar, World Academy of Science, Engineering and Technology 50, 2009.

2. A Neuro fuzzy approach for facial expression recognition using LBP Histograms, V.Gomathi, Dr. K. Ramar, and A. Santhiyaku Jeevakumar, International Journal of Computer Theory and Engineering, Vol 2, No. 2, 1793-8201, pp 245-249, 2010.

3. An adaptive region based color texture segmentation using fuzzified distance metric, G Uma Maheswari, K Ramar, D Manimegalai, V Gomathi, Applied Soft Computing, 11 (2), pp.2916-2924, 2011. (IF:5.472)

4. Human action recognition using monotonic triangular context based shape Features, V Gomathi, K Ramar, Int. J. of Innovative Computing Information and Control, 7(5 B), 2011.

5. A region based an adaptive color texture segmentation using similarity measure of symbolic object approach, G Uma Maheswari, K Ramar, D Manimegalai, V Gomathi, Advanced Engineering Informatics, Vol.33, pp.2167-2173, 2011.

6. XML based approach for object oriented medical video retrieval using neural networks, S Thanga Ramya, P Rangarajan, V Gomathi, Journal of Medical Imaging and Health Informatics 6 (3), pp.1-8, 2016. (IF:0.659)

7. Comprehensive review on fusion techniques for spatial information enhancement in hyperspectral imagery, A Mookambika, V Gomathi, Multidimensional Systems and Signal Processing, 37 (5), pp.863-889, 2016. (IF:1.81)

8. Pervasive health monitoring through video-based activity information integrated with sensor-cloud oriented context-aware decision support system, JayaLakshmi M, V Gomathi, Multimedia Tools and Applications, 77(21), pp.3699–3712, 2020. (IF:2.313)

9. Fundus Image Classification Using Wavelet Based Features in Detection of Glaucoma, Selvathi D, Prakash N. B, Gomathi V, Hemalakshmi G. R., Biomed Pharmacol J 2018;11(2).

10. Sensor-Cloud based Precision Agriculture Approach for Intelligent Water Management, JayaLakshmi M, V Gomathi, International Journal of Plant Production, 14, pp.177–186, 2020. (IF:1.169) https://doi.org/10.1007/s42106-019-00077-1

11. α-cut induced Fuzzy Deep Neural Network for change detection of SAR images, S.Kalaiselvi, V.Gomathi, Applied Soft Computing, 95(2020), 106510, https://doi.org/10.1016/j.asoc.2020.106510 (IF:5.472)

12. Air quality prediction through regression model, Aarthi, A., Gayathri, P., Gomathi, N.R., Kalaiselvi, S., Gomathi, V., International Journal of Scientific and Technology Research, 2020.

13. An Efficient Technique for Disease Prediction by using enhanced Machine Learning Algorithms for Categorical Medical Dataset, Veera Anusuya V., Gomathi V., Information Technology and Control, Vol.50, No.1, 2021, pp. 102-122, https://doi.org/10.5755/j01.itc.50.1.25349 (IF:1.228)

14. TGSL-Dependent Feature Selection for Boosting the Visual Sentiment Classification, Usha Kingsly Devi Karuthakannan and Gomathi Velusamy, Symmetry, Vol.13, No.8, 1464, Aug 2021, https://doi.org/10.3390/sym13081464 (IF:2.713)

15. Kernel eigenmaps based multiscale sparse model for hyperspectral image classification, A.Mookambiga, V.Gomathi, Signal Processing-Image Communication, 2021. Vol.99, November 2021, https://doi.org/10.1016/j.image.2021.116416 (IF:3.256)

16. A unique approach of person re-identification using auto-track regression framework, M. L. Sworna Kokila, V. Gomathi, Journal of Intelligent and Fuzzy Systems, https://dx.doi.org/10.3233/JIFS-201977 , Vol. 42, No. 4, pp. 4277-4294, 2021. (IF:1.737)

17. Indian Sign language Recognition through Hybrid ConvNet-LSTM Networks, Muthu Mariappan H., Gomathi V., Emitter-International Journal of Engineering and Technology, Vol.9, No.1, Aug 2021, https://doi.org/10.24003/emitter.v9i1.613 (ESCI - WoS Indexed)

18. Sensor-based Human Activity Recognition using fuzzified Deep CNN architecture with λ-max method, Gomathi V., Kalaiselvi S., Thamaraiselvi D, Sensor Review, Vol.42, No.2, pp.250-262, Jan 2022. http://dx.doi.org/10.1108/SR-06-2021-0195 (IF:1.583)

19. Image captioning using detectors and swarm based learning approach for word embedding vectors, Lalitha B., Gomathi V., Computer Systems Science and Engineering, Vol. 44, No.1, pp.173–189, 2023 doi:10.32604/csse.2023.024118 (IF:4.387)

20. Deep Convolutional Neural Networks with Transfer Learning for Visual Sentiment Analysis, Usha Kingsly Devi K., Gomathi V., Neural Processing Letters, Vol.55, No.4, pp. 5087–5120, 2023, https://doi.org/10.1007/s11063-022-11082-3 (IF:2.565)

21. A Novel Approach of Dynamic Vision Reconstruction from fMRI Profiles Using Siamese Conditional Generative Adversarial Network, Rathi Karuppasamy, Gomathi Velusamy, Raja Soosaimarian Peter Raj, Brazilian Archives of Biology and Technology, 66, 2023. https://doi.org/10.1590/1678-4324-2023220330 (IF:1.18)

22. Generating a potent inhibitor against MCF7 breast cancer cell through artificial intelligence based virtual screening and molecular docking studies, Latha V., Gomathi V., Rajeshkanna A., Hari Ram S., Indian Journal of Biochemistry & Biophysics, Vol. 60, No.11, pp. 844-856, 2023. https://doi.org/10.56042/ijbb.v60i11.6067 (IF:1.476)

23. A novel approach of visual image reconstruction from fMRI using Kohonen Network Information Maximizing Generative Adversarial Network, Rathi Karuppasamy, Gomathi Velusamy, Raja Soosaimarian Peter Raj, International Journal of Wavelets, Multiresolution and Information Processing, 2024, 22(6), 2450032 https://doi.org/10.1142/S0219691324500322 (IF:0.9)

24. Blockchain-Enabled Searchable Encryption for Secure and Efficient Sharing of IoHT-Generated Electronic Medical Records in Cloud-Based Healthcare, S. Rajesh Kumar, V. Gomathi, K. Vivekrabinson, Radioengineering, Vol. 34, No. 2, pp. 289-302, JUNE 2025 https://dx.doi.org/10.13164/re.2025.0289 (IF:0.5)

25. A lightweight CNN for LULC classification: an alpha-cut fuzzy geometric normalization approach, V. Anitha, S.Kalaiselvi, V. Gomathi, D.Manimegalai, Signal, Image and Video Processing, Vol. 19, No. 753, (June 2025) https://doi.org/10.1007/s11760-025-04349-4 (IF:2.1)

26. Generating an efficient BACE1 Inhibitor for the treatment of Alzheimer's disease based on AI-powered ADMET Analysis, Molecular Docking and Molecular Dynamics studies, V.Latha, V.Gomathi, S. Hari Ram, RM. Vidhyavathi and D.Prabhu, Indian Journal of Biochemistry & Biophysics (Accepted – IF:1.5)

Highlights of Conference Participations
IEEEXplore / AIP Proceedings [Scopus Indexed]

1. Human action recognition using triangular context base shape features, K Ramar, V Gomathi, IHCI'10.
2. Unsupervised monitoring of urban land use and land cover change detection in multi-temporal images, N Sathya, S Kalaiselvi, V Gomathi, KG Srinivasagan, ICECS'14.
3. A Registration Technique for Medical Images using Fuzzy-SIFT Matching, MJ Adaline, S Kalaiselvi, V Gomathi, KG Srinivasagan, ICIIECES'14.
4. An Enhanced Underground Pipeline Water Leakage Monitoring And Detection System Using Wireless Sensor Network, M JayaLakshmi, V Gomathi, ICSNS'15.
5. Secure communication between wireless medical sensor networks and data servers using pallier & elgamal key cryptosystem, A.Vasukidevi, M.JayaLakshmi, V Gomathi, ICCTIDE'16.

6. Crowd Scene analysis using Deep Learning Network, Santhini C, Gomathi V, ICCTCT'18.

7. Framework for advanced weather forecasting technique using DMaaS in Cloud, Veera Anusuya V., Gomathi V, ICCTCT'18.

8. Review based on Image Understanding Approaches, Lalitha B., Gomathi V., ICCTCT '18.

9. Human vision reconstruction using brain activity profile, Rathi K, Gomathi V, ICCCA'18.

10. Real-Time Recognition of Indian Sign Language, Muthu Mariappan H, Dr.Gomathi V, ICCIDS'19. **[Best Paper award]**

11. Psychological person-centric guiding mechanisms for managing distractions of in-attentive student, V Latha, V Gomathi, Alagappa University, 11-12 July 2019, CPBPE'19.

12. Forecasting the outbreak and spread of COVID-19 in India and TamilNadu using logistic growth and SIR models, S Geetha and S Rajeswari, V Gomathi, and V Latha, AICTE sponsored Online Conference on Data Science and Intelligent Information Technology, 2021. AIP Procs. Vol. 2444, No.020004. https://doi.org/10.1063/5.0078248

13. Air Quality Prediction using Remote Sensing, R.Raja Selvi, M. Shruthi, G.Nithya, S.Kalaiselvi, M.Jayalakshmi, and V.Gomathi, AICTE sponsored Online Conference on Data Science and Intelligent Information Technology, 2021. AIP Procs. Vol. 2444, No.040005. https://doi.org/10.1063/5.0078338

14. Road Segmentation from remote sensing images using fuzzy based convolutional neural network, J. Hebzibah, S.Kalaiselvi, V.Anitha and V.Gomathi, AICTE sponsored Online Conference on Data Science and Intelligent Information Technology, 2021. AIP Procs. Vol. 2444, No.040007. https://doi.org/10.1063/5.0078336

15. Automatic Prediction of Plant Leaf Diseases Using Deep Learning Models: A Review, M. Asta Lakshmi, V.Gomathi, 5th International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques (ICEECCOT), Dec 2021. DOI: 10.1109/ICEECCOT52851.2021.9708043

16. A Novel Object Detection Framework using Convolutional Neural Networks (CNN) and RetinaNet, Archana V, Kalaiselvi S, Thamarai Selvi D, Gomathi V, Sowmiya R, International Conference on Automation, Computing and Renewable Systems (ICACRS), 2022, pp. 1070-1074, DOI: 10.1109/ICACRS55517.2022.10029062

17. A Sentimental Analysis of Legal Documents using Deep Learning Approach, Shunmuga Lakshmi Priya K, Thamarai Selvi D, Kalaiselvi S, Gomathi V, International Conference on Automation, Computing and Renewable Systems (ICACRS), 2022, pp. 1212-1219, DOI: 10.1109/ICACRS55517.2022.10029322

18. A case study on demonstrating the inclusive learning environment for next generation (ILE_NG) learners, Gomathi V, and Latha V, e-TOTAL'23. **[Best Paper award]**

19. Image Captioning for Colorectal Cancer Using Deep Learning Approaches, G. Pavithra, V. Gomathi, D. Thamarai Selvi, P. Selva Rathinam, and S. Kalaiselvi, Proceedings of International Conference on Communication and Computational Technologies, Algorithms for Intelligent Systems, Springer Lecture Notes, (Book Chapter 20: "Algorithms for Intelligent Systems", ISBN: 978-981-99-3485-0), https://doi.org/10.1007/978-981-99-3485-0_20

20. Prediction Of User Ratings For Drug Side Effects Using Deep Neural Network With Contextual Co-occurrence Based Word-Embedding Vector, Hari Ram S., Latha V., Gomathi V., 2023 13th International Conference on Dependable Systems, Services and Technologies (DESSERT'23), Athens, Greece. https://doi.org/10.1109/DESSERT61349.2023.10416465

21. Abdullah, A.S., Karthikeyan, J., Gomathi, V, R. Parkavi, P.Rajarajeswari. Enabling

Technology Integrated Learning for Autistic Children Using Augmented Reality Based Cognitive Rehabilitation. SN COMPUT. SCI. 5, 151 (2024). https://doi.org/10.1007/s42979-023-02495-5

22. Hari Ram S, Ramalingam A, Ashok A, Rajarajeswari P, Dheenadhayalan S, Gomathi V, Yoga pose detection and correction, 6th International Conference on Recent Trends in Advance Computing (ICRTAC), pp. 192-198, April 2024 https://doi.org/10.1109/ICRTAC59277.2023.10480722

23. Rajarajeswari P., Karthikeyan J., Gomathi V., Attention Contours: VR in ADHD Assessment, 10th International Conference on Communication and Signal Processing (ICCSP), pp.417-422, June, 2024. https://doi.org/10.1109/ICCSP60870.2024.10544310

24. Rajarajeswari P., Madhubala R., Gomathi V., Attention Contours: A Comparative Study on 2D and Virtual Reality Attention Profile Assessment Tests, 5th International Conference on Data Intelligence and Cognitive Informatics – ICDICI 2024, https://doi.org/10.1109/ICDICI62993.2024.10810849

25. Kalyana Sundaram, M., Bhuvanesh, R., Hari Narayanan, R., Kalaiselvi, S., Thamarai Selvi, D., Gomathi, V. (2024). An Extractive and Abstractive Approach of Text Summarization. In: Suresh, S., Lal, S., Kiran, M.S. (eds) Intelligent Control, Robotics, and Industrial Automation. RCAAI 2023. Lecture Notes in Electrical Engineering, vol 1220. Springer, Singapore. https://doi.org/10.1007/978-981-97-4650-7_31

26. Muthu Mariappan H, V Gomathi, J Karthikeyan, S Hari Ram, R Sri Gomathi and S Karann, Virtual Reality based Smart Mobile Robot Navigation, The 8th IEEE International Conference on Smart Internet of Things (IEEE SmartIoT2024), https://doi.org/10.1109/SmartIoT62235.2024.00020 , Nov'2024.

27. Karthikeyan Jothikumar, V. Gomathi, G. Keerthikasri, K.S. Bibinsha, (2025). Immersive Virtual Reality-Based Learning Environment: An Innovative Framework, https://doi.org/10.1201/9781003469315-10

28. Madhubala R, Gomathi V and Karthikeyan. J., (2025). EDUVERSE: Inclusive and Immersive Metaverse Learning Environment for Education. IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Bhopal, India, 2025, pp. 1-8, https://doi.org/10.1109/SCEECS64059.2025.10940518

29. P Jaya Shree, T Sri Ishwarya, S Varshini, V Gomathi, S Kalaiselvi, D Thamarai Selvi, Traffic Sign Recognition, IEEE 2025 International Conference on Innovative Trends in Information Technology (ICITIIT), June 2025, https://doi.org/10.1109/ICITIIT64777.2025.11040785

30. A Vidhyalaxmi, Karthikeyan Jothikumar, R Renugadevi, V Gomathi, Janani Ratthna SG, The Metaverse in Higher Education: Development of a Framework for Gamification Learning, IEEE 2025 International Conference on Innovative Trends in Information Technology (ICITIIT), June 2025, https://doi.org/10.1109/ICITIIT64777.2025.11041149

31. Karthikeyan Jothikumar, S Anisha, S Aruna Varshini, AJ Meenakshi, V Gomathi, AI Tutors and Virtual Classrooms: Revolutionizing Distance Learning [Book - Driving Quality Education Through AI and Data Science], IGI Global Scientific Publishing, Ch.22, pp.503-530, 2025. https://www.igi-global.com/chapter/ai-tutors-and-virtual-classrooms/370093

32. Balaji T; Karthick R; Abishek G; D. Thamarai Selvi; Kalaiselvi S; V. Gomathi, Deep Learning Meets Emotion: CNN and Attention Mechanisms for Real-Time Emotion Detection, 2025 5th International Conference on Expert Clouds and Applications (ICOECA), Bengaluru, India, 2025, pp. 707-712, https://doi.org/10.1109/ICOECA66273.2025.00127

Abroad Conference Participations

1. Occlusion Detection and Handling for multi human tracking in Video Surveillance Systems, K Ramar, V Gomathi, Dalian University of Technology, CHINA, ISME'09.
2. Human Facial Expression Recognition using MANFIS Model, MALAYSIA, ICCISE'09.
3. Presented "CasTalk – An Intelligent Sign Language to Speech Translator" prototype model at IEEE R10-HTC 2019 Humanitarian Technology Project Competition, held at Universitas Indonesia, Indonesia November 12-14, 2019. **[Rs.41,000/-Travel grant IEEE-HAC]**
4. Prediction Of User Ratings For Drug Side Effects Using Deep Neural Network With Contextual Co-occurrence Based Word-Embedding Vector, Hari Ram S., Latha V., Gomathi V., 14th October, 2023, 13th International Conference on Dependable Systems, Services and Technologies (DESSERT'23), Athens, Greece – Online Mode
5. Virtual Reality based Smart Mobile Robot Navigation, Muthu Mariappan H, V Gomathi, J Karthikeyan, S Hari Ram, R Sri Gomathi and S Karann, The 8th IEEE International Conference on Smart Internet of Things (IEEE SmartIoT2024), China - **[US$1500 Travel grant under IEEE CS 20 for Author]**

Books/ Book Chapters Published

S. No	Title	Author's Name	Publisher	Year of Publication
1	AI Tutors and Virtual Classrooms: Revolutionizing Distance Learning [Book Chapter 22]	Karthikeyan Jothikumar, S Anisha, S Aruna Varshini, AJ Meenakshi, V Gomathi	IGI Global [Book - Driving Quality Education Through AI and Data Science]	2025
2	A Sentimental Analysis of Legal Documents Using Mask Attention BERT Networks [Book Chapter 10]	D. Thamarai Selvi, S.Santhi, S. Kalaiselvi, V.Anitha, V.Gomathi, Sathish Kumar Sekar	IGI Global	2025
3	Immersive Virtual Reality-Based Learning Environment: An Innovative Framework [Book Chapter 10]	Karthikeyan Jothikumar, V. Gomathi, G. Keerthikasri, K.S. Bibinsha	CRC Press [Book - Adopting Artificial Intelligence Tools in Higher Education: Teaching and Learning, pp. 209–225]	2025
4	Algorithms for Intelligent Systems [Book Chapter 20]	G. Pavithra, V. Gomathi, D. Thamarai Selvi,	Springer Lecture Notes, ISBN: 978-981-99-3485-0	2023
5	Impact of ICT in Teaching and Learning Process : An overview [Book-Chapter]	Dr.V.Latha, Dr.V.Gomathi	INSTA Publishing, Delhi	2022
6	Fundamentals of Computing and Programming	Dr.K.Ramar Ms.V.Gomathi Ms.P.Mohanakrishnaveni	ST Publications	2009
7	Fundamentals of Computing	Dr.K.Ramar Dr.D.Manimegalai Ms.V.Gomathi	ST Publications	2006

Co-ordination of Initiatives

- ✓ Signed MoU in Business Analytics domain with HIF Analytics LLC, USA since Aug 2024.
- ✓ Signed MoU in AR&VR domain with TryCAE, Trichy since March 2024.
- ✓ Signed MoU in AR&VR and Game Development domains with M-tutor, Chennai since March 2024.
- ✓ Established Image Processing Research Centre with Rs.4.6 L NEC-Seed Fund during Sep 2022.
- ✓ NVIDIA – DLI Ambassador and recognized course instructor for Deep Learning since Feb 2021.
- ✓ Established Centre-of-Excellence NEC-VVDN AI & ML Research work on Computer Vision during April 2020-March 2022 in collaboration with VVDN Technologies, Chennai.
- ✓ Signed MoU with Bennett University, Greater Noida as Head-Lead Zone Partner for AI-Deep Learning (leadingindia.ai) research initiative during Aug 2018 – March 2021.
- ✓ Signed MoU with UiPath Academic Alliance for global certifications in Robotic Process Automation August 2019-May 2023.
- ✓ Signed MoU with Adroit Soft India (P) Ltd, Chennai for Research Innovation in Full stack development since July 2018. (3rd Renewal)
- ✓ Staff Counselor, IEEE Computer Society Student Chapter, NEC June 2018 – May 2025.

Professional Activities

Technical Events Organized:

Event Title	Agency	Amount	Duration
One day National level Technical symposium "COMPONEC-05"	TCS	20000	22.09.2005
A two day DIT sponsored National seminar on "Recent trends and issues in video data analysis for surveillance"	DIT	35000	23.12.2008-24.12.2008
National conference on Advanced Networking and Image processing	DST,TCS, DRDO	200000	05.03.2010-06.03.2010
Continuing Education Programme on "Advanced C,C++ Programming"			Aug 2008 to Jan 2009
Technical Seminar by Dr.Gaurav Sharma, University of Rochester, USA			29.08.2012
Value Added Course on "Java Application Development" – Set 1			Even Sem 2014-2015
2days DST sponsored workshop on Advancements in Visual Sensor Networks and its impact on public safety & security	DST	35000	08.01.2015-09.01.2015
Value Added Course on "Java Application Development" – Set 2			Odd Sem 2015-2016
2 days DBT sponsored workshop on :Modern computing technologies for Affective Brain Computer Interface (ABCI)	DBT	50000	08.01.2016-09.01.2016
IEEE-International Conference on Computing Technologies and Intelligent Data Engineering ICCTIDE-16	IEEE,TCS, BRNS, ISRO	205000	07.01.2016-09.01.2016
Value Added Course on "Business Intelligence Solution Development"			Even Sem 2015-2016
4 days Quality based Professional Training Programme			19th June, 2nd July, 8th-9th August – 2016
Industrial Training Programme on "Data Science and Machine Learning"	EPICs in IEEE	60000	24-26, Nov 2017
Research Interaction on "Deep Learning using GPU for Computer Vision Applications"	EPICs in IEEE	15000	27.01.2018

Event Title	Agency	Amount	Duration
After Prof. & Head / CSE Promotion			
IARCS sponsored 2 days Instructional course on "Applied Game Theory"	IARCS, Delhi	Technical support	07-08, July 2018
DST-SERB sponsored 2 days national workshop on "Machine Learning Techniques for WSN: Networks to Application Perspective"	DST-SERB, New Delhi	50000	17-18, Nov. 2018
Anna University approved FDTP on "Design and Analysis of Algorithms"	AU Chennai	Self-supporting	Dec 2018
Bennett University sponsored 3 days hands-on workshop on "AI and Deep Learning"	BU, Noida	10000	28-30 Dec 2018
IEEE Madras section sponsored Symposium IEEEMASSYMP- 2019 by Cluster 3 – IEEE (ITS)	IEEE (ITS)	5000	9, March 2019
2 Days workshop on "Insights in AI & Deep Learning"	NEC	Self-supporting	August 2019
TNSCST sponsored 2 Days symposium – COMPONEC'19	TNSCST	20000	12-13, Sep 2019
Anna University approved FDTP on "Compiler Design"	AU Chennai	18000	16-21 Dec 2019
CIIL sponsored 2 days National Seminar on "Recent Trends & Research Directions of Deep Learning in Natural Language Processing"	CIIL, Bangaluru	30000	29-30, Jan 2020
IEEE MAS section sponsored 2 days workshop on "Machine Learning using Python"	IEEE MAS	10000	31 Jan & 1 Feb 2020
CIIL sponsored 2 days National Seminar on "Research avenues in Deep Learning for Natural Language Processing"	CIIL, Bangaluru	30000	14&15, Feb 2020
CRSI sponsored 2 days Instructional workshop on "Emerging research frontiers in Quantum Safe Cryptography"	CRSI, Kolkatta	25000	28&29 Sep 2020
IEEE MAS section sponsored 2 days workshop on "Machine Learning using Python"	IEEE MAS	10000	29 & 30 Jan 2021
AICTE sponsored National Online Conference on Data Science and Intelligent Information Technology	AICTE, New Delhi	Self-supporting	14 & 15 May 2021
ATAL-FDP on "Predictive Intelligence Models and its Applications"	ATAL	93000	12 – 16 July 2021
IEEE CS-USA sponsored National Level Virtual Project Exhibition 2021(ProExpo'21)	IEEE CS-USA	14379($197)	18 Dec 2021
IARCS sponsored 4 days Instructional course on "Randomized Algorithms, Derandomization and Applications"	IARCS, Delhi	Technical support	21-22&28-29, Jan 2022
IARCS sponsored 2 days Instructional course on "Stochastic Approximation Algorithms"	IARCS, Delhi	Technical support	27&28, Apr 2023
Industrial Oriented Course on Oracle Technologies – Oracle SQL, PL / SQL & APEX Training Program (102 Certifications)	INOAUG	Technical support	10th June – 30 Sep, 2023
Anna University Sponsored 6 Days FDTP on "CS3501-Compiler Design"	CFPD, AU Chennai	35000	31st July – 5th Aug, 2023
IEEE CS-MAS section sponsored National Level Project Exhibition – IEEEPROEXPO'23	IEEE CS-MAS	10000	13 Oct 2023
TNSCST sponsored 3 Days Workshop on "Fostering Innovation among School Students through IoT Education"	TNSCST, Chennai	20000	17-19, Oct 2024
TNSCST sponsored 2 Days Workshop on "Digital Horizons through IoT Education for rural students"	TNSCST, Chennai	20000	3-4, Jan 2025

Event Title	Agency	Amount	Duration
IARCS sponsored 2 days Instructional course on "Undesirability in Turing Machine"	IARCS, Delhi	Technical support	Jan 2026

Expert Lectures Delivered (during past 13+ Years):

S.No	Title	Venue	Date
1.	Seven Days FDP on "Applications of AI Tools in Multidisciplinary Research"	Sri. S.Ramasamy Naidu Memorial College, Sattur (Virtual Mode)	15.12.2025
2.	Three-day workshop on "AI in Public Health and Epidemiology"	Indian Council of Medical Research - National Institute of Epidemiology, Chennai	28.03.2025
3.	Workshop on "Generative AI based virtual screening for drug design"	Sri. S.Ramasamy Naidu Memorial College, Sattur	24.02.2025
4.	ATAL FDP – Visualization Techniques for AR	PSR Engineering College, Sivakasi	23.11.2023
5.	Workshop on "Generative AI based virtual screening for drug design"	Sri. S.Ramasamy Naidu Memorial College, Sattur	24.08.2023
6.	Anna University Sponsored 6 Days FDTP on "CS3501-Compiler Design"	NEC, Kovilpatti	05.08.2023
7.	Workshop on "Computational Tools for Molecular Docking"	Sri. S.Ramasamy Naidu Memorial College, Sattur	31.01.2023
8.	Keynote Address on "Research issues in human-centric Predictive Intelligence"	Sri. Sairam Engineering College, Chennai	09.11.2022
9.	Guest Lecture on "Outcome based Education: An Assessment"	Sri. S.Ramasamy Naidu Memorial College, Sattur	02.09.2022
10.	Guest Lecture on "Science & Technology for sustainable future"	Science Centre, Tirunelveli	11.05.2022
11.	TNSCST – MSU In Service Training Plenary Talk on "Role & responsibilities of Teachers; Importance of Teaching Skills"	Manonmaniam Sundaranar University, Tirunelveli	05.05.2022
12.	AICTE-ISTE STTP session on "Search Optimization for Decision Making"	Kumaraguru College of Technology, Coimbatore	04.02.2022
13.	Guest Lecture on "Artificial Intelligence in Security and Face Recognition"	GCE, Tirunelveli	19.11.2021
14.	National Workshop on Computational tools for Research – "Deep Learning"	Kristu Jayanti College, Bangaluru	08.10.2021
15.	Key Note address on "IEEE Students Funding Schemes"	Sri. Sairam Engineering College, Chennai	10.08.2021
16.	ATAL FDP - Security and privacy issues for human-centered predictive intelligence	NEC, Kovilpatti	15.07.2021
17.	Key Note address on Deep learning for Healthcare Applications"	Kristu College, Bangaluru	11.01.2021
18.	ATAL FDP - MIS : Optimizing Search	MEPCO Schlenk Engg. College, Sivakasi	07.01.2021
19.	AICTE STTP - Deep Learning approaches for classification	Syedammal Engineering College, Ramnad	25.07.2020 16.08.2020
20.	AICTE STTP - Soft computing techniques for AI problems	R.M.D. Engineering College, Chennai	15.07.2020 08.08.2020 18.09.2020
21.	IE(I) STTP - Deep learning for Healthcare	KCET, Coimbatore	21.07.2020
22.	Machine Learning using Python	GCE, Tirunelveli	27.09.2019
23.	Recent trends in Computing	Sri SRNM College, Sattur	31.07.2019
24.	Embedding Deep learning in Healthcare Devices	CSIR Seminar, NEC, Kovilpatti	31.01.2019
25.	Hands-on session on Neural Network ToolBox	IEEE Students Branch, NEC	24.01.2019

S.No	Title	Venue	Date
26.	AU Chennai FDTP on DAA	NEC, Kovilpatti	04.12.2018
27.	Machine Learning Techniques for Big Data	CSI Students Chapter, NEC	15.02.2018
28.	Raspberry Pi for Computer Vision	ISTE Students Branch, NEC	03.02.2018
29.	Domains for Human Cognition Development	Anna University, Chennai	07.10.2017
30.	Python for Beginners	IEEE Students Branch, NEC	09.09.2017
31.	Python Programming with Functions	GCE, Tirunelveli	16.08.2017
32.	NLP – Understanding & Generation	NEC, Kovilpatti	05.10.2016
33.	Hands-on session on EEGLAB Toolbox for BCI	ISTE, NEC, Kovilpatti	29.09.2016
34.	Real-time applications of PRML in MATLAB	NEC, Kovilpatti	11.08.2016
35.	Hands-on session on Neural Network Toolbox	IEEE Students Branch, NEC	05.08.2016
36.	Recent advancements in Image Processing	VVV College for Women, Virudhunagar	17.07.2016
37.	Security in Cyberspace	IEEE Students' Chapter, NEC	09.04.2016
38.	Big Data Technologies	NECSI'16 Symposium, NEC	09.03.2016
39.	Information theoretic Entities	IEEE Students Branch, NEC	05.03.2016
40.	Big Data Technologies	CSI, NEC, Kovilpatti	09.10.2015
41.	Research avenues in Medical Image Processing	Sathakathulla Appa College, Tirunelveli	25.08.2015
42.	Hands-on session on Neural Network ToolBox	IEEE Students Branch, NEC	07.08.2015
43.	Multimodal biometric authentication	Saradha College for women, Tirunelveli	25.07.2015
44.	Cloud computing approaches for Genomics	NEC, Kovilpatti	09.07.2015
45.	Hands on session on Video processing ToolBox	NEC, Kovilpatti	09.01.2015
46.	Digital Image Processing using MATLAB	IEEE SB, NEC, Kovilpatti	06.09.2014
47.	Applications of Soft Computing Tools	Mohandas College of Engg. & Tech, Trivandrum, Kerala	08.04.2014
48.	Food processing using NDT	NEC, Kovilpatti	04.10.2013
49.	Research Issues on Non Destructive Evaluation	NEC, Kovilpatti	20.09.2013
50.	Verifiable Evidence Security	NEC, Kovilpatti	02.08.2013
51.	Unsupervised Learning	PSG Tech, Coimbatore	03.06.2013
52.	NP Completeness in AU sponsored FDP	NEC, Kovilpatti	10.06.2013
53.	Multi-resolution Analysis using Wavelets	MEPCO Schlenk Engg. College, Sivakasi	22.05.2013
54.	Computational Models for Cognitive Science	NEC, Kovilpatti	02.02.2013
55.	Research Issues & Challenges in Video Processing	MSU, Tirunelveli	17.12.2012
56.	Image Understanding and Motion Analysis	Anna University (TRC), Tirunelveli	13.12.2012
57.	Semantic Image Analysis	MEPCO Schlenk Engg. College, Sivakasi	12.10.2012
58.	Applications of NNs in Nuclear Reactor Monitoring	NEC, Kovilpatti	28.09.2012
59.	Feature Extraction for video processing	R.M.D. Engineering College, Chennai	23.06.2012
60.	Hands on workshop - Soft Computing in MATLAB	G.U.Pope College of Engg, Sawyerpuram	22.03.2012
61.	Recent Trends in DIP	KCET, Virudhunagar	09.03.2012
62.	Fuzzy Logic Hands on Training in MATLAB	IRTT, Erode	01.02.2012

Technical Events Attended:

Venue	Duration	Event Title
Pondicherry Academic College, Pondicherry	18.05.1999 to 07.06.1999	21 Days AICTE sponsored Induction Programme for Engineering Education
NEC. Kovilpatti	26.02.2000	ISTE Convention on "Teaching – Learning Strategy"
IITM, Chennai	27.03.2005 to 29.03.2005	3 Days Quality Improvement Training Programme on "Teaching Methodologies" sponsored by NITTTR, Chennai

Venue	Duration	Event Title
NEC, Kovilpatti	14.09.2006 to 16.09.2006	Two days workshop on "PhD Aspirants meet on Academic Research : An Industrial Perspective"
NITT, Trichy	05.12.2007	One day DST sponsored seminar on "Image and Video processing & analysis"
NEC, Kovilpatti	16.05.2008 to 17.05.2008	Two day National seminar on "Pattern recognition for Multimedia content analysis"
MEPCO, Sivakasi	22.08.2008 to 23.08.2008	Two days CSIR National Seminar on " Multimedia Signal Processing"
NEC, Kovilpatti	30.11.2009 to 04.12.2009	Five days "Mission10X" workshop
NEC, Kovilpatti	31.03.2010 to 01.04.2010	Two days advanced Workshop on "Course Planning" sponsored by Wipro Systems, Bangalore
NEC, Kovilpatti	28.01.2011 to 29.01.2011	Two days CSIR sponsored National Seminar on "Research Issues in Wearable Computing"
Cognizant Technology Systems, Chennai	30.06.2011 to 01.07.2011	Two days Cognizant - ICT academy of Tamilnadu sponsored Faculty Development Programme on "RIPLLE- 2011"
NEC, Kovilpatti	14.02.2013	One day Special Lecture on "Advances in Image Processing" by Dr.R.Balasubramanian, IIT Roorkee
TCE, Madurai	29.04.2013	One day NBA Evaluator/Resource person Workshop on "Outcome based Education" (Phase – I)
TCE, Madurai	09.05.2013 to 11.05.2013	Three days NBA Evaluator/Resource person Workshop on "Outcome based Education" (Phase – II)
NEC, Kovilpatti	08.11.2014 to 09.11.2014	Two days TN&P ISTE Convention, at NEC, Kovilpatti
NEC, Kovilpatti	28.11.2014 to 30.11.2014	Three days Ignite HR orientation Programme
NEC, Kovilpatti	18.11.2015 to 20.11.2015	Formulation of Research & Development Grant Proposals by Scientists and Technologists – 3 Days
NITT, Trichy	27.11.2015 to 28.11.2015	Two days workshop on "Video Analytics" under Indo-US 21st Century Knowledge Initiative Programme
Leela Ambience, Gurgaon	18.03.2016 to 20.03.2016	3rd World Summit on "Outcome Based Accreditation"
NEC, Kovilpatti	08.01.2016 to 09.01.2016	Two days DBT sponsored National workshop on Modern computing technologies for Brain Computer Interface (ABCI)
Amrita, Kerala	06.05.2016	National Nodal Centre Conference
IIT Kanpur	14.07.2016 – 25.08.2016	Elite certification for NPTEL course on "How the Brain Creates Mind"
Chennai Statistical Institute	Jan–Mar 2017	Golden Elite certification for NPTEL course on "Programming, Data Structures and Algorithms in Python" (20 Hrs) 91%
IIT Kanpur	July–Sep 2017	Elite certification for NPTEL course on "Cognition, Transformation and Lives"
IIT Hyderabad, Telangana	5th Mar – 9th Mar 2018	5 days GIAN course on "Programming GPUs & Accelerators: A Principled Quantitative Approach"
KLE Technological University, Karnataka	11th – 13th Aug 2018	3 Days leadingindia.ai workshop on "Deep Learning and AI"
IIT Madras	Aug-Oct, 2018	Elite certification for NPTEL course on "Deep Learning – Part 1"
IIT Kharagpur	July-Sep, 2019	Elite certification for NPTEL course on "Psychology for Every Day"

Venue	Duration	Event Title
TLC, CIT, Coimbatore	8-12, February, 2020	Faculty Empowerment Programme on "Teaching, Learning and Assessment with MOOC platform and Open Education Resources"
AICTE, New Delhi	11-15, May 2020	Online UHV workshop on "Inculcating Universal human values in Technical Education"
IEEE	24 Oct 2020	Mentor for IEEEXtreme 14.0 Hackathon Global Coding Contest
NVIDIA DLI Institute	15 Jan 2021	Certification of Competency in Fundamentals of Deep Learning
NVIDIA DLI Institute	21 May 2021	Certification of Competency in Deep Learning for Healthcare Image analysis
IEEE	Oct 2021	Mentor for IEEEXtreme 15.0 Hackathon Global Coding Contest
NVIDIA DLI Institute	23 Mar 2022	Certification of Competency in Applications of AI in Predictive Maintenance
IIT Kharagpur	Jan-Mar, 2022	Elite certification for NPTEL course on "Emotional Intelligence"
IEEE	Oct 2022	Mentor for IEEEXtreme 16.0 Hackathon Global Coding Contest
NIT Trichy	30th Jan – 3rd Feb, 2023	NRDC sponsored 5 days workshop on "Intellectual Property Rights, Technology Transfer & Entrepreneurship"
NEC, Kovilpatti	27-28, Apr, 2023	IARCS sponsored 2 days Instructional course on "Stochastic Approximation Algorithms"
IEEE	Oct 2023	Mentor for IEEEXtreme 17.0 Hackathon Global Coding Contest
IIT Kharagpur	Aug-Oct, 2023	Elite Silver certification for NPTEL course on "The Science of Happiness and Wellbeing" (1% Topper)
IEEE	Oct 2024	Mentor for IEEEXtreme 18.0 Hackathon Global Coding Contest
ATAL FDP (Online)	20-25, Jan 2025	6-day Generative and Ethical AI: Techniques and Applications with hands-on, NIT Trichy
IIT Kharagpur	Jan-Mar, 2025	Elite Silver certification for NPTEL course on "Introduction to Soft Computing"
VDU FDP (Online)	15-19, Sep, 2025	Redesigning teaching for Gen Z & alpha: Pedagogies for New Age Learners, CTL, Vishwakarma University, Pune
ATAL FDP (Online)	13-18, Oct, 2025	Next-Generation Healthcare: Integrating IoT and AI for Predictive Diagnostics and Monitoring, Sri Venkateswara College of Engineering, Chennai

Technical Reviewer in SCI Journals

- IEEE Transactions on Pattern analysis and Machine Intelligence
- IEEE/ACM Transactions on Computational Biology and Bioinformatics
- Applied Soft Computing
- Advanced Engineering Informatics
- Sensor Review
- Expert Systems With Applications
- Applied Artificial Intelligence
- International Journal of Artificial Intelligence and Machine Learning
- International Journal of Pattern Recognition and Artificial Intelligence
- Engineering Applications of Artificial Intelligence

(Dr.V.GOMATHI)