

# Dr. D. JUDE HEMANTH

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<https://web.math.unipd.it/deeplearning/people/>

<https://www.bookdepository.com/author/Jude-Hemanth>

[http://www.mirlabs.net/network/Asia/India/catalogue/D.Jude\\_Hemanth.php](http://www.mirlabs.net/network/Asia/India/catalogue/D.Jude_Hemanth.php)

<http://lapisco.ifce.edu.br/?wpdmpro=jude-hemanth-cv>



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## Academic Background:

Degree	Institution	University	Period	Percentage of Marks	Achievements
Ph.D (Medical Image Analysis using soft computing techniques)	Karunya University, Coimbatore	Karunya University	2009-2013	9 CGPA	-----
M.E (Communication Systems)	Mepco Schlenk Engineering College, Sivakasi	Anna University	2004-2006	89.12	<b><u>University 1<sup>st</sup> rank</u></b>
B.E (Electronics and Communication Engineering)	Karunya Institute of Technology and Sciences	Bharathiar university	1998-2002	85.9	1st class with distinction

## Professional Experience:

Teaching experience = 17 years

Institution/University	Designation	Period
Karunya Institute of Technology & Sciences (KITS), Coimbatore, India	Professor	November 2020 – Till date
KITS	Associate Professor	July 2013-October 2020
KITS	Assistant professor (SG)	August 2010- July 2013
KITS	Assistant Professor	January 2008- August 2010
KITS	Lecturer	May 2006-January 2008
Regency Institute of Technology (Pondicherry University), Yanam	Lecturer	November 2002 to May 2004
University of Oradea, Romania	Visiting Professor	May 2021

### Areas of interest

- Computational Intelligence
- Biomedical image processing
- Optimization techniques
- Decision Support Systems
- Machine Learning

### Research Guidance

- Ph.D : 12 (6-Completed, 5-Ongoing)
- Internships (Outside India) : 2

Category	Name of the candidate	Research Topic	Status
Ph.D	S. Uma Maheswari	Image steganography using modified Genetic Algorithm	Completed (Highly Commended)
	Ben Sujin	Noise cancellation in ECG signals using optimization algorithms	Completed (Highly Commended)
	K. Martin Sagayam	Hand gesture recognition system for virtual reality applications	Completed (Highly Commended)
	S. Jemimah Priyadharshini	SAR estimation and reduction using soft computing techniques	Completed (Highly Commended)
	K T Dilna	Abnormality (fibroids) detection in ultrasound images using deep learning techniques	Ongoing
	Renjini Surendran	Scene Understanding using artificial intelligence techniques	Ongoing
	J Jenkin Winston	Development of novel biometric algorithms for security applications	Completed (Highly Commended)
	M Kalpana Chowdhary	Human Emotion Analysis using Intelligence Techniques	Completed (Highly Commended)
	K. Ganesh	Multimodal Sentimental Analysis using Machine Learning Techniques	Ongoing
	Jennifer Eunice	Sign language detection using deep learning techniques	Ongoing
	Smera Premkumar	Heart rate estimation from face videos using intelligent systems	Ongoing
	Beril Susan Philip	MEG data analysis for cognitive imagery-based BCI	Ongoing
Internship	Tobias Fredriech Klepch <b>(Lubeck University, Germany)</b>	Medical Image Segmentation	Completed
	Steven Vande Ryse, <b>(University of Ghent, Belgium)</b>	Neural networks for image analysis	Completed

## **RESEARCH ACTIVITIES**

### **A. PAPER PUBLICATIONS**

#### **TOTAL PAPERS: 158**

<b>International Journals</b>	<b>: 102</b>
<b>International Conferences</b>	<b>: 53</b>
<b>National Conferences</b>	<b>: 3</b>

#### **INTERNATIONAL JOURNALS**

- D. Jude Hemanth, J. Anitha, Antoanela Naaji, Oana Geman, Daniela Elena Popescu and Le Hoang Son, “A Modified Deep Convolutional Neural Network for abnormal brain image classification”, IEEE Access, vol. 7, pp: 4275-4283, 2018. **(Impact Factor = 3.367).**
- Octavian Postolache, Ricardo Alexandre, Oana Geman, D Jude Hemanth, Deepak Gupta and Ashish Khanna, “Remote Monitoring of Physical Rehabilitation of Stroke Patients using IoT and Virtual Reality”, IEEE Journal on Selected Areas in Communications, (Accepted), 2020. **(Impact Factor = 9.144).**
- Remya R S , Gopakumar C M, Hariharan S and D Jude Hemanth, “Traditional and deep-based techniques for end-to-end automated karyotyping: A review”, Expert Systems, DOI : <https://doi.org/10.1111/exsy.12799>, 2021. **(Impact Factor = 2.587).**
- Preeti Nagrath, Tu N Nguyen, Shivani Agarwal and D Jude Hemanth, “A comprehensive E-commerce customer behavior analysis using convolutional methods”, Computers and Electrical Engineering, vol. 96, 2021. **(Impact Factor = 3.818).**
- Diana Baby, Sujitha Juliet, D Jude Hemanth, Anishin Raj, “Leukocyte classification based on feature selection using extra trees classifier: A transfer learning approach”, Turkish Journal of Electrical Engineering and Computer Sciences, vol. 29, pp: 2742-2757. **(Impact Factor = 0.806).**
- Ligia Rusu, Elvira Paun, Mihnea Ion Marin, Jude Hemanth et al., “Plantar Pressure and Contact Area Measurement of Foot Abnormalities in Stroke Rehabilitation”, Brain Sciences, vol.11, no.9, pp: 1-18, 2021. **(Impact Factor = 3.394).**
- Jenkin Winston, D Jude Hemanth, Anastassia Angelopoulou and Epaminondas Kapetoanias, “Hybrid deep convolutional neural models for iris image recognition”, DOI: <https://doi.org/10.1007/s11042-021-11482-y>, 2021. **(Impact Factor = 2.757).**
- Abhinav Dayal, Sumit Gupta, Sreenu Ponnada and D Jude Hemanth, “Coherence and adaptivity in frameless rendering – A practical and information theoretic analysis”, IEEE Access, Vol. 9, pp: 67752-67760, 2021, **(Impact Factor = 3.367).**

- Ganesh C, Tu N Nguyen and D Jude Hemanth, “Multimodal Sentimental analysis for social media applications: A comprehensive Review”, WIREs Data Mining and Knowledge Discovery, DOI: <https://doi.org/10.1002/widm.1415>, 2021. **(Impact Factor = 7.250)**
- M. Kalpana Chowdary, Tu N. Nguyen, D. Jude Hemanth, “Deep learning-based facial emotion recognition for human–computer interaction applications”, Neural Computing and Applications, <https://doi.org/10.1007/s00521-021-06012-8>, 2021. **(Impact Factor = 5.606).**
- Rachna Jain, Meenu Gupta, Soham Taneja and D Jude Hemanth, “Deep learning based detection and analysis of COVID19 on chest X-ray images”, Applied Intelligence, DOI: [10.1007/s10489-020-01902-1](https://doi.org/10.1007/s10489-020-01902-1), 2020. **(Impact Factor = 5.086).**
- F A Alsarori, Hilal Kaya, Javad Rahebi, Daniela E Popescu and D Jude Hemanth, “Cancer cell detection through histological nuclei images applying the hybrid combination of artificial bee colony and particle swarm optimization algorithms”, International Journal of Computational Intelligence Systems, Vol. 13, No. 1, pp: 1507-1516., 2020. **(Impact Factor = 1.736).**
- Preeti Nagrath, Rachna Jain, Agam Madan, Rohan Arora, Piyush Kataria and D Jude Hemanth, “SSDMNV2: A real time DNN-based face mask detection system using single shot multibox detector and MobileNetV2”, Sustainable Cities and Society, Vol. 66, pp: 1-11. 2021. **(Impact Factor = 7.587).**
- H. Asha Gnana Priya, J. Anitha, Daniela Elena Popescu, Anju Asokan, D. Jude Hemanth, Le Hoang Son, “Detection and Grading of Diabetic Retinopathy in Retinal Images Using Deep Intelligent Systems: A Comprehensive Review”, Computers, Materials and Continua, vol. 66, no.3, pp: 2771-27786, 2020. **(Impact Factor = 3.772).**
- Inderpreet Singh Walia, Deepika kumar, Kaushal Sharma, D Jude Hemanth and Daniela Elena Popescu, “An integrated approach for monitoring social distancing and face mask detection using stacked ResNet-50 and YOLOv5”, Electronics, vol. 10, no.23, pp: 1-21, 2021. **(IF = 2.397)**
- Douglas de A. Rodrigues, Roberto F. Ivo, Suresh Chandra Satapathy, Shuihua Wang, Jude Hemanth and Pedro P. Rebouças Filho, “A new approach for classification skin lesion based on transfer learning, deep learning and IoT system”, Pattern Recognition Letters, **(Accepted)**, 2020. **(Impact Factor = 3.756).**
- Anju Asokan, J. Anitha, Monica Ciobanu, Andrei Gabor, Antoanela Naaji and D. Jude Hemanth, “Image Processing Techniques for Analysis of Satellite Images for Historical Maps Classification—An Overview”, Applied Sciences, Vol. 10, No. 12, 4207, 2020. **(Impact Factor = 2.679).**
- Anju Asokan, J. Anitha, Bogdan Patrut, Dana Danculescu and D. Jude Hemanth, “Deep feature extraction and feature fusion for bi-temporal satellite image classification”, Computers Materials & Continua, Vol. 66, No. 1, pp: 373-388, 2020. **(Impact Factor = 3.772).**
- Rachna Jain, Preeti Nagrath, Gaurav Kataria, V. Sirish Kaushik and D. Jude Hemanth, “Pneumonia detection in chest x-ray images using convolutional neural networks and transfer learning”, Measurement, Vol. 165, 108046, 2020. **(Impact Factor = 3.927).**

- Mamta Mittal, Lalit Mohan Goyal, Amit Verma, Iqbaldeep Kaur, Sumit Kaur and D. Jude Hemanth, “Deep learning based enhanced tumor segmentation approach for MR brain images”, Applied Soft Computing, vol. 78, pp: 346-354, 2019. **(Impact Factor = 6.725)**.
- Maria Flynn, Dimitris Effraimidis, Anastassia Angelopoulou, Epaminondas Kapetanios, David Williams, D Jude Hemanth and Tony Towell, “Assessing the effectiveness of automated emotion recognition in adults and children for clinical investigation”, Frontiers in Human Neuroscience, DOI: 10.3389/fnhum.2020.00070, 2020. **(Impact Factor = 3.169)**.
- Jose A Marmolejo Saucedo, D. Jude Hemanth and Utku Kose, “Prediction of Electroencephalogram time series with electro-search optimization algorithm trained adaptive neuro-fuzzy inference system”, IEEE Access, vol. 7, pp: 15832 -15844, 2019. **(Impact Factor = 3.367)**.
- Mehshan Ahmed Khan, Muhamed Attique, Fawad Ahmed, Mamta Mittal, Lalit Mohan Goyal, D. Jude Hemanth and Suresh Chandra Satapathy, “Gastrointestinal diseases segmentation and classification based on duo-deep architectures”, Pattern Recognition Letters, Vol. 131, pp: 193-204, 2020. **(Impact Factor = 3.756)**.
- Debabrata Dansana, Raghvendra Kumar, Aishik Bhattacharjee, D. Jude Hemanth, Deepak Gupta, Ashish Khanna, Oscar Castillo, “Early diagnosis of COVID-19-affected patients based on X-ray and computed tomography images using deep learning algorithm”, Soft Computing, DOI: [10.1007/s00500-020-05275-y](https://doi.org/10.1007/s00500-020-05275-y), 2020. **(Impact Factor = 3.643)**.
- S Jemimah Priyadarshini and D Jude Hemanth, “Investigation of Nanomaterial Dipoles for SAR reduction in Human Head”, Frequenz, (Accepted), 2019. **(Impact Factor = 0.726)**.
- Oana Geman, Octavian Postolache, Luliana Chiuchisan, Marius Prelipceanu, Ritambhara and D Jude Hemanth, “An Intelligent Assistive Tool using Exergaming and Response Surface Methodology for patients with brain disorders”, IEEE Access, vol.7, pp: 21502-21513, 2019. **(Impact Factor = 3.367)**.
- D. Jude Hemanth and J. Anitha, “Modified Genetic Algorithm approaches for classification of abnormal Magnetic Resonance brain tumor images”, Applied Soft Computing, vol. 75, pp: 21-28, 2019. **(Impact Factor = 6.725)**.
- D.Jude Hemanth, Omer Deperlioglu and Utku Kose, “An enhanced diabetic retinopathy detection and classification approach using deep convolutional neural network”, Neural Computing and Applications, vol. 32, pp: 707-721, 2019. **(Impact Factor = 5.606)**.
- Deepika Kumar, Nikita Jain, Aayush Khurrana, Sweta Mittal, Suresh Chandra Satapathy, Roman Senkerik and D. Jude Hemanth, “Automatic Detection of White Blood Cancer From Bone Marrow Microscopic Images Using Convolutional Neural Networks”, IEEE Access, vol.8, pp: 142521 – 142531, 2020. **(Impact Factor = 3.367)**.

- C Mahanty, R Kumar, B K Mishra, D Jude Hemanth, D Gupta and A Khanna “Prediction of COVID-19 active cases using exponential and non-linear growth models”, Expert Systems, <https://doi.org/10.1111/exsy.12648>. **(Impact Factor = 2.587)**.
- Mamta Mittal, Lait Mohan Goyal, D Jude Hemanth and Jasleen Kaur Sethi, “Clustering approaches for high dimensional databases: A review”, WIREs Data Mining and Knowledge Discovery, vol. 9, no.3, 2019. **(Impact Factor = 7.250)**.
- Rachna Jain, Nikita Jain, Akshay Agarwal and D. Jude Hemanth, “Convolutional neural network-based Alzheimer’s disease classification from magnetic resonance brain images”, Cognitive Systems Research, vol. 57, pp: 147-159, 2019. **(Impact Factor = 3.523)**.
- Hongwei Chen, Luying Cao, D. Jude Hemanth, Zairan Li, Lijun Wu, Victor Hugo and Fuqian Shi, “Evaluation on diabetic plantar pressure data-set employing auto-segmentation technologies”, Neural Computing and Applications, <https://doi.org/10.1007/s00521-018-3838-x>, 2018. **(Impact Factor = 5.606)**.
- D. Jude Hemanth, J. Anitha, Le Hoang Son and Mamta Mittal, “Diabetic Retinopathy diagnosis from retinal images using modified Hopfield neural network”, Journal of Medical Systems, <https://doi.org/10.1007/s10916-018-1111-6>, 2018. **(Impact Factor = 4.460)**.
- D. Jude Hemanth, J. Anitha and Le Hoang Son, “Brain signal based human emotion analysis by Circular back propagation and deep kohonen neural networks”, Computers & Electrical Engineering, vol. 68, pp: 170-180, 2018. **(Impact Factor = 3.818)**.
- D. Jude Hemanth, Utku Kose, Omer Deperlioglu and Victor Hugo Albuquerque, “An augmented reality supported mobile application for diagnosis of heart diseases”, Journal of Supercomputing, <https://doi.org/10.1007/s11227-018-2483-6>, 2018, **(Impact Factor = 2.474)**.
- Pedro Pedrosa Filho, Suane Silva, Victor Praxedes, D. Jude Hemanth and Victor Albuquerque, “Control of singularity trajectory tracking for robotic manipulator by genetic algorithms”, Journal of Computational Science, vol. 30, pp: 55-64, 2019, **(Impact Factor = 3.976)**.
- Beejesh A, Varun Gopi and D. Jude Hemanth, “Brain MR kurtosis imaging study: Contrasting gray and white matter”, Cognitive Systems Research, vol. 55, pp: 135-145, 2019, **(Impact Factor = 3.523)**.
- K. Martin Sagayam and D. Jude Hemanth, “ABC algorithm-based optimization of 1-D Hidden Markov Model for hand gesture recognition applications”, Computers in Industry (Elsevier), vol. 99, pp:313-323, 2018 **(Impact Factor = 7.635)**.

- D. Jude Hemanth, J. Anitha, Daniela Elena Popescu and Le Hoang Son, “A Modified Genetic Algorithm for Performance Improvement of Transform based Image Steganography Systems”. International Journal of Intelligent and Fuzzy Systems, DOI: 10.3233/JIFS-169580, 2018, (Impact Factor = 1.851)
- J Revathi, Anitha J, Rizwan P, R Manikandan, D Jude Hemanth and Amir H Gandomi, “Machine learning based left ventricular hypertrophy detection using multi-lead ECG signal”, Neural Computing and Applications, DOI: <https://doi.org/10.1007/s00521-020-05238-2>, 2020. (Impact Factor = 5.606).
- J.Jenkin Winston, Gul Fatma Turker, Utku Kose and D. Jude Hemanth, “Novel Optimization based hybrid self-organising map classifiers for iris image recognition”, International Journal of Computational Intelligence Systems, vol.13, no.1, pp: 1048-1058, 2020. (Impact Factor = 1.736).
- J. Jenkin Winston and D. Jude Hemanth, “A comprehensive review on iris image based biometric systems”, Soft Computing, DOI: 10.1007/s00500-018-3497-y, 2018. (Impact Factor = 3.643).
- K. Martin Sagayam and D. Jude Hemanth, “A probabilistic model for state sequence analysis in hidden markov model for hand gesture recognition”, Computational Intelligence, vol. 35, no.1, pp: 59-81, 2019 (Impact Factor = 2.330).
- D. Jude Hemanth and Jemima Priyadharshini, “Investigation and Reduction Methods of Specific Absorption Rate (SAR) for Biomedical Applications: a survey”, International Journal of RF and Microwave Computer-aided Engineering, vol. 28, no. 3, pp: 1-15, 2018, (Impact Factor = 1.694)
- Mamta Mittal, Lalit Mohan Goyal, Jasleen Kaur Sethi and D. Jude Hemanth, “Monitoring the impact of economic crisis on crimes using machine learning techniques”, Computational Economics, vol. 53, no. 4, pp: 1467-1485, 2019. (Impact Factor = 1.876)
- Pedro Filho, Solon Peixoto, Raul Nobrega, D Jude Hemanth, Aldisio Medeiros, Arun Kumar S and Victor Hugo Albuquerque, “Automatic histologically-closer classification of skin lesions”, Computerized Medical Imaging and Graphics, (Accepted), 2018, (Impact Factor =4.790)
- Longfei Zheng, Yu Wang, D. Jude Hemanth, Arun Kumar Sangiah, Lijun Wu and Fuqian Shi, “Data augmentation on mice liver cirrhosis microscopic images employing convolutional neural networks and support vector machine”, Journal of Ambient Intelligence and Humanized Computing, (Accepted), 2018, (Impact Factor =7.104)
- Bhavneet Kaur, Meenakshi, Mamta Mittal, Amit Varma, Lalit Mohan Goyal and D. Jude Hemanth, “An improved salient object detection algorithm combining background and foreground connectivity for brain image analysis”, Computers and Electrical Engineering, (Accepted), 2018, (Impact Factor = 3.818)

- D.Jude Hemanth, J. Anitha and Bernadetta Kwintiana Ane, “Fusion of Artificial Neural Networks for Learning Capability Enhancement: Application to Medical Image Classification”, Expert Systems, <https://doi.org/10.1111/exsy.12225>, 2017, (**Impact Factor = 2.587**)
- D.Jude Hemanth and J. Anitha, “A pattern based Artificial Bee Colony Algorithm for motion estimation in video compression techniques”, Circuits, Systems and Signal Processing, DOI: 10.1007/s00034-017-0613-7, 2017, (**Impact Factor = 2.225**)
- D.Jude Hemanth, J. Anitha & Valentina Emilia Balas, “Fast and Accurate Fuzzy C-Means algorithm for MR brain image segmentation” International journal of imaging systems and technology, vol.26, no.3, pp: 188-195 , 2016. (**Impact Factor = 2.000**).
- D.Jude Hemanth, J. Anitha & A. Indumathy, “Diabetic Retinopathy diagnosis in retinal images using Hopfield neural network” IETE Journal of Research, DOI:10.1080/03772063.2016.1221745 , 2016. (**Impact Factor = 2.333**).
- D.Jude Hemanth, S. Uma Maheswari, Daniela Elena Popescu and Antonalla Naaji, “Application of Genetic Algorithm and Particle Swarm Optimization techniques for improved image steganography systems”, Open Physics, DOI : 10.1515/phys-2016-0052, 2016. (**Impact Factor = 1.067**).
- K. Martin Sagayam and D. Jude Hemanth, “Hand posture and gesture recognition techniques for virtual reality applications: A survey”, Virtual Reality, DOI: 10.1007/s10055-016-0301-0, 2016. (**Impact Factor = 5.095**).
- S. Uma Maheswari & D. Jude Hemanth “Frequency domain QR code based image steganography using Fresnelet transform”, International Journal of Electronics and Communications (Elsevier), vol.69, no.2, pp. 539-544, 2015. (**Impact Factor =3.183**).
- S. Uma Maheswari & D. Jude Hemanth “A Hybrid Edge Detector and Ridgelet Transform based steganography technique for imaging applications”, Defense Science Journal, vol.65, no.3, pp: 214-219, 2015. (**Impact Factor = 0.707**).
- S. Uma Maheswari & D. Jude Hemanth “Performance Improved Transform based Image Steganography Systems using Optimization Techniques”, Multimedia Tools and Applications (Springer), DOI: 10.1007/s11042-015-3035-1, 2015. (**Impact Factor = 2.757**).
- D.Jude Hemanth, J. Anitha & Valentina Emilia Balas, “Performance Improved Modified Fuzzy C-Means Algorithm for Image Segmentation Applications” Informatica, Vol.26, No.4, pp:1-14, 2015. (**Impact Factor = 2.688**).
- Mohammed Majid Al-Rifaie, Ahmed Aber & D. Jude Hemanth, “Deploying swarm intelligence for medical imaging: Identifying metastasis, microcalcification and brain image segmentation”, IET systems biology, doi: 10.1049/iet-syb.2015.0036, 2015. (**Impact Factor = 1.615**).
- D.Jude Hemanth, C.Kezi Selva Vijila, A.Immanuel Selvakumar & J.Anitha, “Performance Improved Iteration-Free Artificial Neural Networks for Abnormal Magnetic Resonance Brain



Image Classification”, Neurocomputing (Elsevier), vol.130, pp.98-107, 2014 (**Impact Factor = 5.719**).

- D.Jude Hemanth, C.Kezi Selva Vijila, A.Immanuel Selvakumar & J.Anitha “Distance Metrics based Time Efficient Fuzzy Algorithm for Abnormal MR Brain Image Segmentation”, Neural Computing & Applications (Springer), Vol.22, No.5, pp. 1013-1022, 2013. (**Impact Factor = 5.606**).
- J. Anitha & D.Jude Hemanth, “An Efficient Kohonen-Fuzzy Neural Network Based Abnormal Retinal Image Classification System”, Neural Network World, Vol.23, no.6, pp: 149-167, 2013. (**Impact Factor = 1.518**).
- J.Anitha, C.K.S.Vijila, A.I.Selvakumar, A.Indumathy & D.Jude Hemanth, “Automated multi-level pathology identification techniques for abnormal retinal images using Artificial Neural Networks”, British Journal of Ophthalmology, Vol.96, no.2, pp: 220-223, 2012. (**Impact Factor = 4.638**).
- J.Anitha, C.K.S.Vijila, A.I.Selvakumar & D.Jude Hemanth, “Performance improved PSO based modified Kohonen neural network for retinal image classification”, Journal of Chinese Institute of Engineers, Vol.35, no.8, pp: 979-991, 2012. (**Impact Factor = 1.144**).
- D.Jude Hemanth, C.Kezi Selva Vijila & J.Anitha “A High Speed Back Propagation Neural Network for Multistage MR Brain Tumor Image Segmentation”, Neural Network World, Vol.21, no.1, 2011. (**Impact Factor = 1.518**).
- Alexandru Popa, Mihaela Hnatiuc, Mirel Paun, Oana Geman and Jude Hemanth, Daniel Dorcia, Simona Ghita and Le Hoang Son, “An Intelligent IoT Based Food Quality Monitoring Approach Using Low Cost Sensors”, Symmetry, (**Accepted**), 2019. (**Impact Factor = 2.713**).
- Rachna Jain, Nikita Jain, Yash Gupta, Tarun Chugh, Tushar Chugh and D. Jude Hemanth, “A Modified Fuzzy Logic Relation Based Approach for Electricity consumption forecasting in India”, International Journal of Fuzzy Systems, (**Accepted**), 2019. (**Impact Factor = 4.673**).
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- Adrian Brezilianu, Oana Geman, Marius Dan Zbancioc, Marius Hagan, Cristian Aghion, D Jude Hemanth and Le Hoang Son, “IoT Based Heart Activity Monitoring Using Inductive Sensors”, Sensors, (**Accepted**), 2019. (**Impact Factor = 3.576**).
- Ansh Mittal, Anu Soorya, Preeti Nagrath and D Jude Hemanth, “Data Augmentation based morphological classification of galaxies using deep convolutional neural network”, Earth Science Informatics, DOI: 10.1007/s12145-019-00434-8, 2019. (**Impact Factor = 2.878**).
- Sujatha R, Aarthy S L, Jyotir Moy Chatterjee and D. Jude Hemanth, “Forest data visualization and land mapping using support vector machines and decision trees”, Earth Science Informatics, DOI: <https://doi.org/10.1007/s12145-020-00492-3>, 2020. (**Impact Factor = 2.878**).

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- A Anitha Angeline, L Godson Asirvatham, D Jude Hemanth, J Jayakumar and Somchai Wongwises, “Performance prediction of hybrid thermoelectric generator with high accuracy using artificial neural networks”, *Sustainable energy technologies and assessments*, vol. 33, pp: 53-60, 2019. (**Impact Factor = 5.353**).
- Bini Darwin, Pamela D, Shajin Prince, Daniela Elena Popescu and D Jude Hemanth, “Recognition of bloom/yield in crop images using deep learning models for smart agriculture: A review”, *Agronomy*, vol. 11, no. 4, pp: 1-22, 2021. (**Impact Factor = 3.417**).
- Revathi J, Anitha J and Jude Hemanth D, “Review of computational techniques for the analysis of abnormal patterns of ECG signal provoked by cardiac disease”, *Computer Modelling in Engineering and Sciences*, vol. 128, no.3, pp: 875-906, 2021. (**Impact Factor = 1.593**).
- A Anju Asokan, Daniela Elena Popescu, J Anitha and D Jude Hemanth, “Bat algorithm based non-linear contrast stretching for satellite image enhancement”, *Geosciences*, (**Accepted**), 2020. (**Scopus**)
- J Revathi, J. Anitha and D Jude Hemanth, “Training Feedforward Neural Network using Genetic Algorithm to Diagnose Left Ventricular Hypertrophy”, *Telkomnika*, (**Accepted**), 2020. (**Scopus**)
- Sreenu Ponnada, Praveen Kumar , Abhinav Dayal, Srinivas Yarramalle, Nagesh Vadaparathi and Jude Hemanth, “An assisting model for the visually challenged to detect bus door accurately”, *Telkomnika*, (**Accepted**), 2020. (**Scopus**)
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- S. Uma Maheswari & D.Jude Hemanth, “A survey on different methodologies for image steganography based data hiding applications”, *International Journal of Information and Communication Technology*, Vol. 7, No. 4/5, pp: 521-536, 2015. (Scopus)
- S. Uma Maheswari & D. Jude Hemanth “Discrete Ripplet transform based steganography system for imaging applications”, *International Journal of Reasoning based intelligent systems*, vol.7, no.1/2, pp:130-135, 2015. (Scopus).
- D.Jude Hemanth, C.Kezi Selva Vijila, A.Immanuel Selvakumar & J.Anitha “Hybrid Artificial Neural Network for MR Brain Image Segmentation”, *Information Journal*, Vol. 16, No. 1(B), pp. 669-674, 2013. (Scopus).
- Abdalla Zidan, Aboul Ella Hassanien & D.Jude Hemanth, “Level Set-based CAD System for Liver Image Segmentation”, *International Journal of Imaging & Robotics*, Vol. 9, no.1, pp: 26-36, 2013. (Scopus).
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- Nicolas Park, Daniela Lopez, Daniel Rivera, Leonorda Bustamante, D Jude Hemanth, Teodora Olariu and Lustin Olariu, “Multi- neural networks object identification”, Proceedings of International Workshop on Soft Computing Applications, Romania, pp: 189-196, 2020. ([Scopus](#))
- Ganesh C and D Jude Hemanth, “An Intelligent Framework for Online Product Recommendation Using Collaborative Filtering” Lecture Notes in Networks and Systems, 2021, 176 LNNS, pp. 249–259.
- Narina Thakur, Preeti Nagrath, Rachna Jain, Nitika Sharma and D Jude Hemanth, “ Artificial Intelligence Techniques in Smart Cities Surveillance Using UAVs: A Survey”, *Studies in Computational Intelligence*, 2021, 971, pp. 329–353.

## **B. BOOKS/ EDITED BOOKS/ BOOK CHAPTERS/ EDITORIALS**

**Total :36**

**Authored Books :1**

**Edited Books :24**

**Book chapters :6**

**Editorial :5**

- D.Jude Hemanth, J.Anitha and D.Selvathi, “Artificial Intelligence Techniques for Medical Image Analysis” VDM-Verlag (Germany), ISBN: 978-3639248258, 2010.
- D.Jude Hemanth (eds), “Handbook of Decision Support Systems for neurological disorders”, Elsevier, 1<sup>st</sup> edition, ISBN: 9780128222713, 2021 (**Scopus**)
- D.Jude Hemanth, J. Anitha and George A Tsihrintzis (eds), “Internet of Medical Things: Remote healthcare systems and Applications” in the Springer series on Internet of Things, (Springer), 2021, (**Scopus**)
- D.Jude Hemanth and Valentina Emilia Balas (eds), “Biologically Rationalized Computing Techniques for Image Processing Applications” in the Springer series Lecture Notes on Computational Vision and Biomechanics (Springer), 2017. (**Scopus**)
- D. Jude Hemanth and Vania Viera Estrela (eds), “Deep Learning for Image Processing Applications” in the Advances in Parallel Computing Series (IOS Press), 2018. (**Scopus**)
- Mamta Mittal, D. Jude Hemanth, Valentina Emilia Balas and Ragavendra Kumar (eds), “ Big Data for Parallel Computing” in the Advances in Parallel Computing Series (IOS Press), 2018. (**Scopus**)
- D. Jude Hemanth (eds), “Artificial Intelligence Techniques for Satellite Image Analysis” in the Remote sensing and Digital Image Processing Series (Springer), 2019. (**Scopus**)
- D. Jude Hemanth and Valentina Emilia Balas (eds), “Nature Inspired Optimization techniques for image processing applications” in the Intelligent Systems Reference Library series (Springer), 2018. (**Scopus**)
- D.Jude Hemanth, Deepak Gupta and Valentina Emilia Balas (eds), “Intelligent Data Analysis for Biomedical Applications : Challenges and Solutions”, in the Intelligent Data Centric Systems series (Elsevier), 2018. (**Scopus**)
- Vania Viera Estrela, D. Jude Hemanth and Osamu Saotome (eds), “Imaging and Sensing for unmanned aerial vehicles-vol. I in the book series of IET, 2018. (**Scopus**).
- Vania Viera Estrela, D. Jude Hemanth and Osamu Saotome (eds), “Imaging and Sensing for unmanned aerial vehicles-vol. II in the book series of IET, 2018. (**Scopus**).
- D. Jude Hemanth and S Smys (eds), “Proceedings of International Conference on Computational Vision and Bio Inspired Computing” in the Springer series Lecture Notes on Computational Vision and Biomechanics (Springer), 2017. (**Scopus**)
- D. Jude Hemanth and Valentina Emilia Balas (eds), “Telemedicine Technologies: Big data, Deep learning, Robotics and Mobile healthcare (Elsevier), 2018. (**Scopus**).
- Rachna Jain, Preeti Nagrath, Narina Thakur, Dharmeder Saini, Nitika Sharma and D Jude Hemanth, “Towards a Smarter Surveillance Solution: The Convergence of Smart City and

Energy Efficient Unmanned Aerial Vehicle Technologies”, in Rajalakshmi K (eds), “Development of And Future Of Internet Of Drones Iod: Insights”, Springer, 2021(Scopus)

- D Jude Hemanth, Robert Beztek and Chen Joy long Zhong (eds), “Intelligent Data Communication Technologies and Internet of Thing”, in the Lecture Notes on Data Engineering and Communications Technologies series (Springer), 2020. (Scopus)
- D. Jude Hemanth et al. (eds), “Proceedings of International Conference on Intelligent Data Communication Technologies and Internet of Things”, in the Lecture Notes on Data Engineering and Communications Technologies series (Springer), 2018.
- D.Jude Hemanth and Utku Kose (eds), “Artificial Intelligence and Applied Mathematics in Engineering Problems”, in the Lecture Notes on Data Engineering and Communications Technologies series (Springer), 2018.
- D. Jude Hemanth, Oscar Castillo, Bogdan Patrut, et. al. (eds), “Emerging Trends in Computing and Expert Technology”, in the Lecture Notes on Data Engineering and Communications Technologies series (Springer), 2018.
- D. Jude Hemanth and Thushari Silva (eds), “Proceedings of SLAAI- International Conference on Artificial Intelligence”, in the CCIS series (Springer), 2018.
- D. Jude Hemanth, Madhulika Bhaduria and Oana Geman, “Data Visualization and Knowledge Engineering: *Spotting data points with artificial intelligence*”, in the Lecture Notes on Data Engineering and Communications Technologies series (Springer), 2019.
- D. Jude Hemanth, B. Vinoth Kumar and G R Karpagam (eds), “Recent advances on memetic algorithms and its applications in image processing” in the Studies in Computational Intelligence (Springer), 2019.
- D.Jude Hemanth and J.Anitha, “Computational Intelligence Techniques for Pattern Recognition in Biomedical Image Processing Applications” in *Machine Learning Algorithms for Problem Solving in Computational Applications: Intelligent Techniques*, Sid Kulkarni, Editor, IGI Global (USA), 2012, pp: 195-209, Chapter 12. (Scopus)
- D.Jude Hemanth and J.Anitha, “Medical Image Analysis using soft computing techniques” in *Soft Computing techniques in Engineering Applications*, Springer (Studies in Computational Intelligence), Srikanta Patnaik & Baojiang Zhong, Editors, vol.543, 2014, DOI:10.1007/978-3-319-04693-8, Chapter 9. (Scopus)
- K. Martin Sagayam and D.Jude Hemanth, “Optimization of Compressive Sensing based 2-D HMM approach using ABC Algorithm for Hand Motion Recognition System” in *Hybrid Intelligent Techniques for Pattern Analysis and Understanding*, CRC Press, Siddharth Bhattacharya, Anirban Mukherjee and Indrajit Pan (eds), 2016. (Scopus)
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- D. Jude Hemanth and Ali Ismail Aawad, Guest Editorial, International Journal of Computational Vision and Robotics (Inderscience), Special issue on Advances in soft computing techniques for image processing, vol.3, no.4, pp:249-250, 2014. ([Scopus](#))
- D. Jude Hemanth and Vania Viera Estrela, Guest Editorial, International Journal of Information and Communication Technology (Inderscience), Special issue on Medical Informatics – A practical perspective, vol.7, no.4/5, pp:333-335, 2015. ([Scopus](#))
- D. Jude Hemanth and Aboul Ella Hassanien, Guest Editorial, International Journal of Advanced Intelligence Paradigms, Special issue on Hybrid soft computing approaches for image processing: The ‘X’ dimension, vol.7, no.2, pp:109-110, 2015. ([Scopus](#))
- D. Jude Hemanth and Valentina Emilia Balas, Guest Editorial, Intelligent Decision Technologies-An International Journal, Special issue on Decision support systems for medical imaging applications, vol.10, pp: 329-330, 2016. ([Scopus](#))
- D. Jude Hemanth, Lipo Wang, Joao Manuel Tavares, Fuqian Shi and Vania Viera Estrela, Guest Editorial, IEEE Access, Special issue on Computational Intelligence Techniques for medical industry – Special issue on Soft Computing Techniques for image analysis in the medical industry, ([Accepted](#)), 2018. ([SCIE indexed, IF =3.24](#))

(FOR THE COMPLETE LIST, SEE: <https://www.bookdepository.com/author/Jude-Hemanth>)

### C. CITATIONS



- <https://www.scopus.com/authid/detail.uri?authorId=35100335700>
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**Cumulative Impact Factor = 276.032**

## **D. EDITORIAL POSITIONS & REVIEWER**

- **Associate Editor of:**

- IEEE Access (IF=4.098) (2017-2018)
- IEEE-JBHI (IF=5.223)
- Soft Computing (IF=3.050)
- IET Image Processing (IF=2.393)
- Journal of Intelligent and Fuzzy Systems (IF=1.637)
- Mathematical Problems in Engineering (IF= 1.179)
- Dyna (Spain) (IF=0.781)
- PeerJ Computer Science (IF=3.471)
- IET Quantum Communications
- Neuroscience Informatics

- **Book series editor of:**

- Biomedical Engineering (Elsevier)
- ASTI series (Springer)
- Biomedical and Robotics Healthcare (Taylor & Francis)

- **Section Editor of:**

- International Journal of Electronics and Telecommunications (SCOPUS)
- Scientific Journal of TELKOMNIKA (SCOPUS)
- IAES International Journal of Artificial Intelligence (SCOPUS)

- **Editorial board member of:**

- International Journal of Advanced Intelligent Paradigms (SCOPUS)
- International Journal of Tomography and Simulation (SCOPUS)
- International Journal of Imaging and Robotics (SCOPUS)
- Intelligent Decision Technologies-An International Journal (SCOPUS)

- **Guest Editor of:**

- Special issue on “The boon and bane of medical image processing- An introspection” in Sensing and Imaging Journal (Springer)
- Special issue on “Developments and issues in medical imaging” in International Journal of Biomedical Engineering and Technology (Inderscience)
- Special issue on “Issues and Challenges in Developing Biomedical and Image Processing Algorithms in the 21<sup>st</sup> Century” in International Journal of Telemedicine and Clinical practices (Inderscience)
- Special issue on “Computer aided Soft Computing Techniques for Biomedical Applications” in IJCA, USA.
- Special issue on “Artificial Intelligence and its applications” in IJHIT, S.Korea

- Special issue on “Soft Computing for Engineering Applications” in TELKOMNIKA, Indonesia
- Special issue on “AI techniques-Novel approaches & Practical applications” in IJCA, USA.
- Special issue on “Practical Perspective of Digital Imaging for Computational Applications” in International Journal of Imaging and Robotics, India
- Special issue on “Effectiveness of image processing for real-time applications” in International Journal of Computational Vision and Robotics, (*Inderscience Publishers*)
- Special issue on “Medical Informatics and Technology” in International Journal of Information and Communication Technology, (*Inderscience Publishers*)
- Special issue on “Decision support systems for medical imaging applications” in Intelligent Decision Technologies – An International Journal (*IOS Press*)
- Special session on “Image Processing & its Applications” in International Conference on Signal, Image processing & Pattern Recognition, South Korea.
- Special session on “Artificial Intelligence Techniques for Imaging Applications” in Seventh IASTED International Conference on Advances in Computer Science and Engineering, Thailand.
- Special session on “Soft computing techniques for multimedia applications” in International Conference on Advanced Machine Learning Techniques and its Applications, Egypt.
- Special issue on “Image processing techniques – A practical perspective” in International Journal of Imaging and Robotics. (scopus indexed)
- Special issue on “Recent trends in image processing” in International Journal of Tomography and Simulation. (scopus indexed)
- Special issue on “Advances in Machine Learning and Intelligent Systems- Challenges and Solutions” in International Journal of Reasoning Based Intelligent Systems. (Scopus Indexed)
- Special session on “Multiple Facets of Image Processing: The X dimension” in International Conference on Digital Content Applications, South Korea.
- Special session on “Soft computing for problem solving in Imaging applications” in 2<sup>nd</sup> International conference on advances in computing, communications and informatics, Mysore, India.
- Special session on “Hybrid Soft computing techniques for practical applications” in 5<sup>th</sup> International conference on Soft Computing for Problem Solving, IIT Roorkee, India.
- Special session on “Innovative Soft Computing Techniques for Pattern Recognition Applications” in 6<sup>th</sup> International conference on Advanced Computing, Networking and Informatics, NIT Silchar, Assam, 2018
- Special issue on “Hybrid soft computing approaches for image processing –The ‘X’ dimension” in International Journal of Advanced Intelligent Paradigms. (*Inderscience Publishers*)

- **Reviewer of:**

- IEEE Transactions on Systems, Man and Cybernatics
- IEEE Transaction on Neural Networks and Learning Systems
- IEEE Journal of Biomedical and Health Informatics
- Computer Methods and Programs in Biomedicine (ELSEVIER)
- Biomedical Signal Processing and Control (ELSEVIER)
- Journal of Biomedical Informatics (ELSEVIER)
- International Journal of Electronics and Communications (ELSEVIER)
- Journal of Medical Systems (Springer)

- Neural Computing and Applications (Springer)
- IAENG International Journal of Computer Science, Hong Kong
- International Journal of Computer science & Systems Engineering, Australia
- International Journal of Open Problems in Computer Science & Mathematics, KSA
- International Journal of Computer Science & Emerging Technologies, UK
- WSEAS Transactions
- International Journal of non-standard & mass computing, Czech Republic (IF=0.5)
- International Journal of Systems Sciences (Taylor & Francis) (IF=0.92)
- International Journal of Artificial Intelligence & Expert Systems, Turkey.
- International Conference on Machine Learning and Computation, Singapore.
- WSEAS conferences (Included in ISI/SCI web of knowledge)
- International Conference on Future Information Technology, Singapore
- International Conference on Mechanical & Electrical Technology, China
- International Journal of Computer Technology, USA
- Informatica, Lithuania
- Science Asia, Thailand
- Iranian Journal of Fuzzy systems
- International Journal of Electrical and Computer Engineering
- Journal of Intelligent and fuzzy systems, Netherlands (IF=0.648)
- Asia-Pacific Journal of Ophthalmology
- International Journal of Engineering and Research in Education
- International Journal of Health Information Sciences and Informatics, USA
- International Conference on Advanced Machine Learning Techniques and its Applications, Egypt.
- International conference on advances in computing, communications & informatics, India
- Science and Information Conference 2013, 2014
- 6<sup>th</sup> International Workshop on Soft Computing applications, Romania

### **E. FUNDED RESEARCH PROJECTS**

<b>S.No.</b>	<b>Title</b>	<b>Amount</b>	<b>Agency</b>	<b>Status</b>
1	Developing Artificial Intelligence Based Software Tools for Screening of Diabetic Retinopathy in Retinal Images	INR 2.78 Lakhs	CSIR, New Delhi	Completed
2	Developing software algorithm for character recognition in Braille applications	INR 10,000	Karunya University	Completed
3	Enhancing the embedding capacity of image steganography approaches using artificial intelligence approaches	INR 15,000	Karunya University	Completed
4	Design and development of an autonomous intelligent drone for city surveillance	INR 14.72 Lakhs	DST, New Delhi	Ongoing
5	Intelligent Transportation Systems	UK Pound 35,000	GCRF, Govt. of UK	Ongoing

### **F. CONSULTANCY PROJECTS WITH INDUSTRIES**

<b>S.No.</b>	<b>Title</b>	<b>Amount</b>	<b>Industry</b>	<b>Duration</b>
1	Healthcare Product Recommendation Systems using Machine Learning	INR 25, 000	Kanmalaitech Pvt. Ltd.,	June 2019 – September

	Techniques		Coimbatore, India	2019
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### **G. PROFESSIONAL MEMBERSHIPS**

- ACM
- International Association of Computer Science and Information Technology (**IACSIT**) (Life member).
- International Association of Engineers (**IAENG**) (Life member).
- Indian Society for Technical Education (**ISTE**) (Life member).
- Index Copernicus (IC) Scientists.
- Machine Intelligence Research Labs, USA.
- **Mentor** of Interscience Research Networks (**IRNET**), India
- Association of Computer, Electronics and Electrical Engineers (ACEEE) (Life Member)
- Task Force on Deep Learning (IEEE CIS society)
- IEEE Systems, Man & Cybernetics Society (SMCS) TC on Soft Computing
- IEEE Computational Intelligence Society (CIS) TC on Neural Networks

### **CO- CURRICULAR ACTIVITIES**

#### **Courses/ Seminars/Workshops/Conferences organized**

##### **A) International Events**

- **Organizing Committee Member** of “**International Workshop**” on “Internet of Things (IOT) Technology and Innovative Application Design”, Beijing, China. **2010**.
- **Publicity Chair** of “18<sup>th</sup> Online World Conference on Soft Computing” scheduled on Dec 1 to Dec 12, 2014.
- **Organizing Committee Member** of “**International Conference**” on “Electrical engineering and computer science”, Bangkok, Thailand.
- **International Programme Committee Member** of “**International Conference**” on “Advanced Machine Learning Technologies and Applications”, Cairo, Egypt.
- **Organizing Committee Member** of “**International Conference**” on “Intelligent Manufacturing and Computational Technology”, Hong Kong, 2014.
- **Programme Committee Member** of “International Conference on Advances in Security of Information and Communication Networks”, Egypt.
- **Programme Committee Member** of “International Workshop on: Biometrics: The Promising Information Security Trend, (BIST’13), Fukuoka, Japan.
- **Technical Programme Committee Member** of “Science and Information Conference 2013”, London, UK.
- **Technical Committee Member** of “International Conference on Recent Trends and Innovations in Science and Technology, Thailand, 2014
- **International Advisory Committee Member** of “International Conference on Electrical Engineering, Computer Science and Informatics”, Indonesia, 2014.
- **International Program Committee Member** of “11<sup>th</sup> International Conference on Genetic & Evolutionary Methods”, USA, 2014.



- **International Program Committee Member** of “ 16<sup>th</sup> International Conference on Artificial Intelligence”, USA, 2014.
- **International Program Committee Member** of “18<sup>th</sup> International Conference on Image Processing, Computer Vision & Pattern Recognition”, USA, 2014.
- **Technical Programme Committee Member** of “Science and Information Conference 2014”, London, UK.
- **Technical Programme Committee Member** of “Future Technologies Conference”, USA, 2016.
- **Technical Programme Committee Member** of “3<sup>rd</sup> International Conference on Artificial Intelligence”, Ireland, 2016.
- **Scientific Committee Member** of “6<sup>th</sup> ECCOMAS Thematic Conference on Computational Vision and Medical Image Processing (vipimage), Portugal, 2017.
- **Publicity Chair** of “3<sup>rd</sup> International Conference on Advanced Intelligent Systems and Informatics”, Egypt, 2017.
- **International Programme Committee Member** of “Seventh International Workshop on Soft Computing Applications”, Arad, Romania.
- **Technical Session chair** of “SLAAI-International Conference on Artificial Intelligence”, Srilanka, 2018.

#### ***B) National Events***

- **Programme Chair** of “**International Conference**” on “Advances in Electrical and Electronics Engineering”, Cochin, India
- **Programme Chair** of “**International Conference**” on “Digital Signal Processing and Image Processing”, Bhubaneshwar, Odisha, India.
- **Organizing Committee Member** of “**International Conference**” on “Advances in Electrical and Electronics Engineering”, Bangalore, India.
- **Programme Committee Member** of “Special Session on Hybrid Intelligent Systems for Computer Vision and Pattern Recognition” in **12<sup>th</sup> International conference on Hybrid Intelligent Systems**, Pune, India
- **Programme Chair** of “**International Conference**” on “Computer Science and Information Technology”, Hyderabad, India (2014)
- **Programme Committee Member** of “International Conference on Advance Computing and Communication”, Jharkhand, India
- **Programme Committee Member** of “International conference on Emerging Trends and Technology, Indore, India
- **Technical Session chair** of “International conference on Information Technology for Signal and Image Processing”, Mumbai, India
- **Technical Session chair** of “International conference on software technology and computer engineering”, Cochin, India
- **Publicity Chair** of “6<sup>th</sup> International Joint Conference on Advances in Engineering and Technology, New Delhi, India, 2015.
- **Technical Programme Committee Member** of “IEEE International Conference on Applied and Theoretical Computing and Communication Technology”, Devanagare, India, 2015.
- **Technical Programme Committee Member** of “International Conference on Recent Advances and Innovation in Engineering”, Jaipur, India, 2014.

- **Technical Programme Committee Member** of “First International Workshop on Nature Inspired Computing for Optimization and Management”, Bhubaneswar, India, 2016.
- **Publication Chair** of “International Conference on Innovative Computing and Communication” conducted by Guru Nanak Institute of Management, New Delhi, 2018.
- **Area Chair** of “International Conference on Recent Trends in Image Processing and Pattern Recognition” conducted by Solapur University, Maharashtra, India, 2018.

### C) Local events

- **Programme Chair** of “International Conference” on “Computer Science and Information Technology”, Coimbatore, India
- **Organizing Secretary** of “International Conference on Signal processing, Image processing and pattern recognition” scheduled on 7<sup>th</sup> and 8<sup>th</sup> February, 2013 at **Karunya University**.
- **Organizing Secretary & Convenor** of “International Conference on Signal processing and communication” scheduled on 28<sup>th</sup> and 29<sup>th</sup> July, 2017 at **Karunya University**.
- **Convenor** of “National Workshop on Infusing Research Attitude in Researchers” scheduled on 12<sup>th</sup> November, 2016 at **Karunya University**.
- **Organized and Conducted** a “Short Term Certificate Course” on “*Matlab and its Applications*” at **Karunya University** from August ’08 – November ’08.
- **Organized and Conducted** an “Add-on course” on “*Fundamentals of MATLAB*” at **Karunya University** from November ’11 – February ’12.
- **Organizing Committee Member** of “International Conference” on “Electronics and Communication Systems”, Coimbatore, India.
- **Programme Chair** of “International Conference” on “Electrical Engineering and Computer Science”, Coimbatore, India
- **Technical Session chair** of “International conference on electrical engineering and computer science”, Coimbatore, India
- **Organized and Conducted** a “Short Term Certificate Course” on “*Fundamentals of MATLAB*” at **Karunya University** from July ’12 – October ’12.
- **Technical chair** of “International conference on energy and power engineering”, Coimbatore.
- **Technical session chair** of “International conference on innovations in intelligent instrumentation, optimization and signal processing”, Coimbatore, India
- **Technical session chair** of “International conference on Electronics and Communication Systems”, Coimbatore, India, 2014.
- **Technical session chair** of “International conference on Devices, Circuits and Systems”, Coimbatore, India, 2014.
- **Programme Chair** of “International Conference on Communication, Computation and Cognition”, Coimbatore, India, 2014.
- **International Technical Committee Member** of “International Conference on Computer Science and Engineering”, India, 2014.
- **Technical Session chair** of “International conference on Electronic and Communication Systems”, Coimbatore, India, 2016
- **Advisory Committee member** of “International conference on Trends in Electronics and Informatics”, Tamilnadu, India, 2017.
- **Technical Session chair** of “International conference on Innovations in Electrical, Electronics, Instrumentation and Media Technology”, Coimbatore, India, 2017.

- **Technical Session chair** of “International conference on Advanced Technologies for Sustainable growth”, Paavai College of Engineering, Coimbatore, India, 2017.
- **Technical Session chair** of “National conference on Future Communication Technologies”, Karunya University, Coimbatore, India, 2017.

#### Course/ Seminars/Workshops attended :

- ✚ Participated in the **Quality Improvement Programme** on “*Instructional Design and Delivery*” conducted by the Technical Teachers’ Training institute (**TTTI, Chennai**) at Regency institute of technology, **Yanam** from **12.05.2003 to 17.05.2003**.
- ✚ Participated in the **Faculty Development Programme** on “*Conquering Inhibitions and Creativity in Teaching*” organized by Karunya Institute of Technology, **Coimbatore** from **14.06.2004 to 15.06.2004**.
- ✚ Attended a **Workshop** on “*Teaching Technology and Counseling Skill*” organized by **Abirami Academy, Chennai** at Regency Institute of Technology, **Yanam** from **26-07-2003 to 27-07-2003**.
- ✚ Participated in the **Pedagogic Training Programme** at Karunya University, **Coimbatore** from **30-04-2007 to 04-05-2007**.
- ✚ Attended the **Induction Training Programme** at Pondicherry Engineering College, **Pondicherry** from **27-12-2002 to 07-01-2003**.
- ✚ Attended an awareness programme on “**Intellectual Property Rights**” at Karunya University on 18-11-2011.
- ✚ Attended a Faculty Development Programme (FDP) at Karunya University on 23-6-2016.

#### Honours & Awards/Special Achievements

- ✚ “**Shiksha Rattan Puraskar**” Award for engineering by India International Friendship Society, New Delhi. (2012)
- ✚ “**Bharat Excellence Award**” for outstanding contribution in research by Friendship forum, New Delhi. (2014)
- ✚ **Anna University** (All Colleges in Tamilnadu) **1<sup>st</sup> rank** in M.E degree. (2006)
- ✚ Awarded “**GOLD MEDAL**” for outstanding performance in PG degree from MSEC, Sivakasi (2007)
- ✚ **BEST OUTGOING STUDENT** of the year 2002 (B.E)
- ✚ An article on my research paper is published as “TOP NEWS” in one of the weekly newsletter namely “Robotics and Machine Learning” (Page no:17, Vertical News) in **USA**.
- ✚ An article on my research paper is well acclaimed by the e-Newsletter namely “RETINA ONLINE”, in **USA**.
- ✚ Received a Sponsorship of 150USD for my research article (Best Paper Category) from **Little Lion Scientific R&D, Pakistan** under Quality Research Promotion Initiative Scheme.
- ✚ Received a sum of 450USD from **Foundations of Computer Science, USA** towards its Research Funding Programme (RFP) for quality manuscripts.
- ✚ Biography selected for publication in the prestigious “**MARQUIS WHO’S WHO**” biographical Encyclopedia (**USA, November 2009, 2014**)

#### Key Notes/Invited talks/Guest lectures

##### **A) International:**

- Delivered a “**Key note**” on “**Innovative Artificial Intelligence approaches for medical image analysis**” in the **International Conference on Artificial Intelligence in Mathematics and Engineering** conducted by Suleyman Demirel University, Turkey on **20<sup>th</sup> April, 2019**.
- Delivered a “**Key note**” on “**Innovative Artificial Neural Networks and Fuzzy techniques for MR brain image classification**” in the **3<sup>rd</sup> International Conference on Engineering and Technology** conducted by Global Academic Research Institute, Srilanka on **22<sup>nd</sup> December, 2017**.
- Delivered a “**Guest Lecture**” on “**Novel Fuzzy algorithms for medical image classification**” in the **Faculty of Information Technology, University of Moratuwa, Srilanka** on **21<sup>st</sup> December, 2017**.
- Delivered a “**Keynote Talk**” on “**Unconventional AI approaches for medical image analysis**” in the “**International Congress on health sciences and medical technologies**” conducted by **University of Tlemcen, Algeria** on **21-23 October, 2018**
- Delivered a “**Keynote Talk**” on “**The boon and bane of soft computing techniques for medical applications**” in the “**SLAAI - International Conference on Artificial intelligence**” in the **University of Moratuwa, Srilanka** on **20<sup>th</sup> December, 2018**.
- Delivered an “**Invited Talk**” on “**Innovative Artificial Intelligence Techniques for MR brain image classification and segmentation**” in the “**18<sup>th</sup> online world conference on soft computing for industrial applications**” on **2<sup>nd</sup> December, 2014**.
- Delivered a “**Keynote Talk**” on “**Role of AI in Education**” in the “**International conference on Interdisciplinary Education** ” conducted by **Near East University, Cyprus** on **20<sup>th</sup> June 2020**.
- Delivered an “**Invited Talk**” on “**Why Deep Learning approaches over conventional machine learning approaches? An introspection**” (Webinar) conducted by **Tribhuvan University, Kathmandu, Nepal** on **1<sup>st</sup> August , 2020**.
- Delivered a “**Keynote Talk**” on “**Expectations of an editor of SCIE Journal from the authors**” in the “**International Multidisciplinary Conference on Current Research Trends** ” conducted by **Research Circle Association, Malaysia** on **20<sup>th</sup> September, 2020**.
- Delivered a “**Keynote Talk**” on “**Understanding the mystery behind deep learning- deep, deeper, deepest**” in the “**International Symposium on Bioinformatics and Biomedicine**” conducted by **Asen Zlatarov University, Bulgaria** on **10<sup>th</sup> October, 2020**.
- Delivered a “**Keynote Talk**” on “**Understanding the mystery behind deep learning- deep, deeper, deepest**” in the “**International Conference on Artificial Intelligence and Applied Mathematics in Engineering**” conducted by **Suliyman Demirel University, Turkey** on **11<sup>th</sup> October, 2020**.
- Delivered a “**Keynote Talk**” on “**Implications of medical decision support systems**” in **International Conference on Artificial Intelligence and Applied Mathematics in Engineering**, conducted by **Suleiman Demirel University, Turkey** on **3<sup>rd</sup> October, 2021**.
- Delivered a “**Keynote Talk**” on “**Automated feature extraction in deep learning models: A boon or a bane?**” in **IEEE International Conference on Electrical Engineering, Computer Science and Informatics**, conducted by **UNISSULA, Indonesia** on **20<sup>th</sup> October, 2021**.

#### **B) National :**

- ✚ Presented an “**Invited Talk**” on “**Soft Computing and its Applications**” at **Sahrdaya College of Engineering, Kerala, India** on **18.08.2008**.
- ✚ Delivered a “**Keynote Address**” on “**Unconventional Computing techniques for medical image analysis**” during **International Conference on Information Technology for Signal and Image Processing, Mumbai, India** on **18.10.2013**.

- ✚ Delivered a “**Key note**” on “**Novel computing techniques for image processing applications**” in the **International Conference on Innovative Computing and Communication** conducted by Guru Nanak Institute of Management, New Delhi on **5<sup>th</sup> May, 2018.** (*upcoming*)
- ✚ **Resource Person** for the “**Faculty Development Programme**” on “**Soft Computing Techniques**” at **Christian Engineering College, Oddanchatram, India** on **29.04.2011 & 30.04.2011.**
- ✚ Delivered an “**Invited Talk**” on “**Fuzzy based Medical Image Analysis**” during the CSIR sponsored seminar at **P A College of Engineering and Technology, Pollachi,** on **29/11/2013.**
- ✚ Delivered a “**Guest Lecture**” on “**Soft computing techniques for medical image analysis**” in the “**National Seminar on Computational Intelligence Techniques for biomedical signal and image processing**” conducted by KPR Institute of Engineering and Technology, Coimbatore on **20<sup>th</sup> August, 2015.**
- ✚ Delivered an “**Invited Talk**” on “**Soft computing techniques for retinal disease identification**” in the “**DBT sponsored National Workshop on Computer Aided Diagnosis for Retinal Diseases**” at Avinashilingam University, Coimbatore on **4<sup>th</sup> March, 2016**
- ✚ Delivered a “**Guest Lecture**” on “**Soft computing techniques for medical image analysis**” conducted by VIT university, Vellore on **11<sup>th</sup> April, 2016.**
- ✚ Delivered a “**Guest Lecture**” on “**Cognitive Approaches for Therapeutic Applications**” in the **DBT sponsored National seminar on Molecular imaging in therapeutic applications** conducted by Kongu engineering college, Erode on **29<sup>th</sup> July, 2016.**
- ✚ Delivered a “**Guest Lecture**” on “**Identification of Diabetic Retinal diseases using soft computing techniques**” in the **ICMR sponsored National seminar on Technologies for diabetic care and management** conducted by Avinashilingam University, Coimbatore on **9<sup>th</sup> September, 2016.**
- ✚ Delivered a “**Key note**” on “**Cognitive Approaches- The ‘x’ dimension of image processing**” in the **IEEE International Conference on Communication and Electronic Systems** conducted by PPG Institute of Technology, Coimbatore on **22<sup>nd</sup> October, 2016.**
- ✚ Delivered a “**Key note**” on “**The significance of soft computing approaches for practical applications**” in the **International Conference on Electrical, Electronics and Computer Engineering** conducted by Vivekanandha College of Engineering for Women, Coimbatore on **8<sup>th</sup> March, 2017.**
- ✚ Delivered a “**Guest Lecture**” on “**Introduction to AI approaches – a theoretical perspective**” in the **AI Expert Lecture Series** conducted by Sri Krishna College of Engineering and Technology, Coimbatore on **21<sup>st</sup> August, 2017.**
- ✚ Delivered a “**Key note**” on “**Innovative Optimization Techniques for retinal image analysis**” in the **International Conference on Computational Vision and Bio Inspired Computing** conducted by RVS Technical Campus, Coimbatore on **21<sup>st</sup> September, 2017.**
- ✚ Delivered a “**Guest lecture**” on “**Computer aided approaches for classification and segmentation of biomedical images**” in the **AICTE sponsored National seminar on Biomaterials for Biomedical engineering applications** conducted by Karpagam College of Engineering on **9<sup>th</sup> October (Afternoon session), 2017.**
- ✚ Delivered a “**Guest lecture**” on “**AI based computational methodologies for Synthetic Aperture Radar (SAR) image analysis**” in the **CSIR sponsored National workshop on Computational and Mathematical Challenges in Radar and Seismic Technology** conducted by P A College of Engineering and Technology on **12<sup>th</sup> October, 2017.**
- ✚ Delivered a “**Guest Lecture**” on “**Skin image classification using machine learning approaches**” in the **ICMR sponsored National Seminar on Recent trends in skin and lung image analysis** conducted by Kalaingar Karunanidhi Institute of Technology on **5<sup>th</sup> January, 2018.**
- ✚ Delivered a “**Guest Lecture**” on “**Challenges in Artificial Intelligence approaches towards biomedical applications**” in the **ICMR sponsored National Seminar on “Innovations and**

**Challenges in development of future biomaterials and smart medical devices” conducted by Hindusthan College of Engineering and Technology on 19<sup>th</sup> January, 2018.**

- ✦ Delivered a “**Keynote talk**” on “**Novel AI approaches for medical image analysis**” in “**MULTICON-W**” conducted by Tagore College of Engineering and Technology, Mumbai on 22<sup>nd</sup> February, 2019.
- ✦ Delivered a “**Keynote talk**” on “**The role of AI in medical applications**” in “**International Conference on Advanced Computing Technology**” conducted by SRM University, Chennai on 23<sup>rd</sup> January, 2020.
- ✦ Delivered an “**Invited Talk**” on “**Modified ANN for medical image analysis**” in “**DST sponsored 2-week Faculty Development programme**” conducted by PSG College of Technology, Coimbatore on 30<sup>th</sup> January, 2020.
- ✦ Delivered an “**Invited Talk**” on “**Role of a researcher in today’s scenario**” in “**International Conference on Electrical Sciences**” conducted by SNS College of Technology, Coimbatore on 20<sup>th</sup> February , 2020.
- ✦ Delivered an “**Invited Talk**” on “**The ART of writing research paper**” in “**Webinar Series**” conducted by Excel College of Engineering, Salem on 28<sup>th</sup> April , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Methods for efficient journal writing**” in “**Webinar Series**” conducted by Gandhi Institute of Engineering and Technology, Odisha on 1<sup>st</sup> May , 2020.
- ✦ Delivered an “**Invited Talk**” on “**The expectation of SCIE journals from authors**” in “**Webinar Series**” conducted by Sona College of Technology, Salem on 9<sup>th</sup> May , 2020.
- ✦ **Resource Person** for the “**5-day FDP on Deep learning and Machine Learning**” (**Webinar**) conducted by SRM University, Chennai from 27<sup>th</sup> May – 31<sup>st</sup> May , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Deep Learning and Transfer Learning methods for COVID19 detection from lung images**” in “**4-day FDP (Webinar)**” conducted by Velammal College of Engineering and Technology, Madurai on 8<sup>th</sup> June , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Nuts and Bolts of an effective scientific research manuscript**” (**Webinar**)” conducted by New Horizon College of Engineering, Bangalore on 16<sup>th</sup> June , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Medical Decision Support Systems using computational intelligence approaches**” (**Webinar**) conducted by Hindustan College of Engineering and Technology, Coimbatore on 15<sup>th</sup> June , 2020.
- ✦ Delivered an “**Invited Talk**” on “**The ART of writing research papers**” (**Webinar**) conducted by SRM University, Chennai on 4<sup>th</sup> July , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Deep learning and transfer learning techniques for COVID19 detection from lung images**” (**Webinar**) conducted by Bharati Vidyapeeth’s College of Engineering, New Delhi on 6<sup>th</sup> July , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Deep learning and transfer learning techniques for COVID19 detection from lung images**” (**Webinar**) conducted by SRM University, Chennai on 21<sup>st</sup> July , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Understanding the mystery behind deep learning- *deep, deeper, deepest***” (**Webinar**) conducted by Dr. NGP Institute of Technology, Coimbatore on 18<sup>th</sup> July , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Medical Decision Support Systems using deep learning approaches: A Comprehensive Description**” (**Webinar**) conducted by KPR Institute of Engineering and Technology, Coimbatore on 24<sup>th</sup> July , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Medical Decision Support Systems using computational intelligence approaches: A Comprehensive Description**” (**Webinar**) conducted by Sri Ramakrishna Engineering College, Coimbatore on 21<sup>st</sup> August , 2020.
- ✦ Delivered an “**Invited Talk**” on “**Understanding the mystery behind deep learning approaches – deep, deeper, deepest**” at ATAL -FDP conducted by Sri Krishna College of Engineering and Technology, Coimbatore on 4<sup>th</sup> September , 2020.

- ✦ Delivered an **“Invited Talk”** on “Understanding the mystery behind deep learning approaches – deep, deeper, deepest” at IEEE Webinar conducted by Kalasalingam University, Srivillipudur on 6<sup>th</sup> September , 2020.
- ✦ Delivered an **“Invited Talk”** on “Nuts and Bolts of an Efficient Scientific Research Manuscript” at AICTE sponsored STTP conducted by Government College of Technology, Coimbatore on 7<sup>th</sup> September , 2020.
- ✦ Delivered an **“Invited Talk”** on “Medical Decision Support Systems using computational intelligence approaches: A Comprehensive Description” (Webinar- SERIES 2) conducted by Sri Ramakrishna Engineering College, Coimbatore on 25<sup>th</sup> September , 2020.
- ✦ Delivered an **“Invited Talk”** on “Why Deep Learning techniques over traditional machine learning techniques? A practical introspection” in AICTE sponsored STTP conducted by Sri Krishna College of Engineering and Technology, Coimbatore on 13<sup>th</sup> October , 2020.
- ✦ Delivered an **“Invited Talk”** on “Feature extraction and feature selection methods for image-based applications: A contrasting process with Machine Learning and Deep Learning” in AICTE sponsored STTP conducted by Sri Krishna College of Engineering and Technology, Coimbatore on 20<sup>th</sup> October , 2020.
- ✦ Delivered an **“Invited Talk”** on “Medical Decision Support Systems using Computational Intelligence Approaches” in AICTE sponsored STTP conducted by Sri Ramakrishna Engineering College, Coimbatore on 23<sup>rd</sup> October , 2020.
- ✦ Delivered an **“Invited Talk”** on “Introduction to Artificial Intelligence, Machine Learning and Artificial Neural Networks” in AICTE sponsored STTP conducted by Sri Krishna College of Technology, Coimbatore on 29<sup>th</sup> October , 2020.
- ✦ Delivered an **“Invited Talk”** on “Exploration of deep learning approaches for research applications” in AICTE sponsored STTP conducted by Sri Krishna College of Technology on 30<sup>th</sup> October , 2020.
- ✦ Delivered an **“Invited Talk”** on “Exploration of deep learning approaches for research applications” in AICTE sponsored STTP conducted by PSNA College of Engineering and Technology on 2<sup>nd</sup> November, 2020.
- ✦ Delivered an **“Invited Talk”** on “Why deep learning over conventional machine learning techniques? A practical introspection” in AICTE sponsored STTP conducted by Sri Krishna College of Engineering and Technology on 18<sup>th</sup> November, 2020..
- ✦ Delivered an **“Invited Talk”** on “Nuts and Bolts of Artificial Intelligence, Machine Learning and Deep Learning” in AICTE sponsored STTP conducted by Arunachala College of Engineering, Nagercoil on 7<sup>th</sup> December, 2020.
- ✦ Delivered an **“Invited Talk”** on “The ART of writing research papers” in AICTE sponsored STTP conducted by Sri Krishna College of Engineering and Technology, Coimbatore on 8<sup>th</sup> December, 2020.
- ✦ Delivered an **“Invited Talk”** on “Why deep learning over conventional machine learning techniques? A practical introspection” in AICTE sponsored STTP conducted by Sri Sai Ram Engineering College, Chennai on 10<sup>th</sup> December, 2020.
- ✦ Delivered an **“Invited Talk”** on “Exploration of deep learning techniques for research applications” in AICTE sponsored STTP conducted by PSNA College of Engineering and Technology, Dindigul on 11<sup>th</sup> December, 2020.
- ✦ Delivered an **“Invited Talk”** on “Exploration of deep learning techniques for research applications” in AICTE sponsored STTP conducted by Sri Sankaracharya Technical Campus, Bhilai, Chattisgarh on 21<sup>st</sup> December, 2020.
- ✦ Delivered an **“Invited Talk”** on **“Methodology of Writing Proposals”** in the **“Workshop for Writing Research Proposals”** at **Karunya University, India** on **13/2/2013**.
- ✦ Delivered an **“Invited Talk”** on **“Successful Research Proposals”** in the **“Workshop for Writing Research Proposals”** at **Karunya University, India** on **20/2/2013**.

- ✦ Delivered an **“Invited Talk”** on **“The art of writing research papers”** as part of ECE Association Inauguration at **Karunya University, India on 25/7/2013.**
- ✦ **Resource Person** for the **National Level Workshop** on **“Evolutionary Optimization Techniques for Solving Multi Disciplinary Research Problems”**, at Karunya University, on **6 & 7 December 2013.**
- ✦ Delivered an **“Invited Talk”** on **“Neural networks and fuzzy techniques for medical image classification and segmentation”** in the **National Workshop on “Applications of advanced learning techniques for medical image diagnostics”** at Karunya University on **14<sup>th</sup> and 15<sup>th</sup> February, 2014**
- ✦ **Resource Person** for the **National Workshop** on **“Soft Computing Techniques for Power Electronics Applications”**, at Karunya University, on **15<sup>th</sup> March, 2014.**
- ✦ Delivered an **“Invited Talk”** on **“The art of writing research papers”** in the **“National Workshop on Computer Vision and Image Analysis”** conducted by Karunya University, Coimbatore on **13<sup>th</sup> February, 2015.**
- ✦ **Resource Person (Panel Discussion Member)** for the **“Research Colloquium: Eye for an excellence”** conducted by Karunya University on **27<sup>th</sup> February, 2016.**
- ✦ Delivered an **“Invited Talk”** on **“Soft computing techniques and image analysis”** in the **“National Workshop on Soft Computing Techniques and R-Programming”** at Karunya University, Coimbatore on **9<sup>th</sup> March, 2016.**
- ✦ Delivered a **“Guest lecture”** on **“The art of writing research papers”** in the **Workshop on Writing Research Papers using LATEX** conducted by Karunya University on **9<sup>th</sup> October (Forenoon session), 2017.**
- ✦ Delivered a **“Guest lecture”** on **“Genetic Algorithm implementation using MATLAB”** in the **National workshop on Mathematical Modelling, Optimization and Simulation** conducted by Karunya University on **27<sup>th</sup> November, 2017.**
- ✦ Delivered a **“Guest lecture”** on **“Deep learning for pattern recognition applications”** in the **National workshop on Deep learning and computer vision** conducted by Karunya University on **7<sup>th</sup> April, 2018.**
- ✦ Delivered a **“Guest lecture”** on **“Machine intelligence for scalable systems”** in the **AICTE sponsored Faculty Development Programme on Machine Intelligence** conducted by Sri Krishna College of Engineering and Technology, Coimbatore on **20<sup>th</sup> June, 2018.**
- ✦ Delivered a **“Guest lecture”** on **“Practical perspectives of Genetic Algorithm and Particle Swarm optimization”** in the **NITTR sponsored National Seminar on “Optimization Techniques”** conducted by Sri Krishna College of Engineering and Technology, Coimbatore on **23<sup>rd</sup> January, 2019.**
- ✦ Delivered a **“Guest lecture”** on **“Introduction to Artificial Neural Networks”** in the **CSIR sponsored National Workshop on Neural Networks for Wind Energy Estimation** conducted by P A College of Engineering and Technology, Pollachi on **14<sup>th</sup> February, 2019.**
- ✦ Delivered a **“Guest lecture”** on **“Innovative Artificial Intelligent Techniques for Retinal Image Classification”** in the **CSIR sponsored National Seminar on “Computer aided diagnosis of retinal images using machine learning techniques – Innovations and Research perspectives”** conducted by Kongu Engineering College, Coimbatore on **14<sup>th</sup> June, 2019.**
- ✦ Delivered a **“Guest lecture”** on **“Learning and Adaptive Soft Robots Design”** in the **NITTR sponsored short term course on Haptic Technology”** conducted by Sri Krishna College of Engineering and Technology, Coimbatore on **13<sup>th</sup> June, 2019.**
- ✦ Delivered a **“Guest lecture”** on **“Artificial Intelligence: A boon or bane?”** in the **National level technical symposium”** conducted by ECE Department, Mahendra Institute of Technology, Namakkal on **6<sup>th</sup> September, 2019.**
- ✦ Delivered a **“Keynote Talk”** on **“Fuzzy logic techniques for medical image analysis”** in the **“2<sup>nd</sup> International Conference on Intelligent Data Communication Technologies and Internet of Things”** at JCT college of engineering, Coimbatore on **12<sup>th</sup> September, 2019.**



- ✚ Delivered an “**Invited Talk**” on “Exploration of deep learning approaches for research applications” in AICTE sponsored STTP conducted by PSNA College of Engineering and Technology on 7<sup>th</sup> January, 2021.
- ✚ Delivered an “**Invited Talk**” on “Introduction to Machine Learning and Deep Learning” in AICTE sponsored STTP conducted by PSNA College of Engineering and Technology on 8<sup>th</sup> January, 2021.
- ✚ Delivered an “**Invited Talk**” on “Why Deep Learning techniques over conventional Machine Learning Techniques?” in AICTE sponsored STTP conducted by PSNA College of Engineering and Technology on 20<sup>th</sup> January, 2021.
- ✚ Delivered an “**Invited Talk**” on “The ART of writing research papers and the nuances of the publication process ” in FDP conducted by Pimpri Chinchwad College of Engineering, Pune on 1<sup>st</sup> February, 2021.
- ✚ Delivered an “**Invited Talk**” on “Why deep learning over traditional machine learning techniques?” in FDP conducted by Government College of Technology, Coimbatore on 17<sup>th</sup> February, 2021.
- ✚ Delivered an “**Invited Talk**” on “Why deep learning over traditional machine learning techniques?” in FDP conducted by Velammal College of Engineering, Madurai on 1<sup>st</sup> March, 2021.
- ✚ Delivered an “**Invited Talk**” on “Nuts and Bolts of Efficient Scientific Research Manuscript” in TEQIP sponsored seminar conducted by Government College of Technology, Coimbatore on 9<sup>th</sup> March, 2021.
- ✚ Delivered an “**Invited Talk**” on “Nuts and Bolts of Efficient Scientific Research Manuscript” in National seminar conducted by KBT College of Engineering, Nashik, Maharashtra on 12<sup>th</sup> May, 2021.
- ✚ Delivered an “**Invited Talk**” on “Why Deep Learning techniques over conventional Machine Learning Techniques?” in AICTE sponsored seminar conducted by MIT Academy of Engineering, Pune on 26<sup>th</sup> May, 2021.
- ✚ Delivered an “**Invited Talk**” on “Deep Learning Techniques for medical image applications” in seminar conducted by GITAM university, Visakhapatnam on 29<sup>th</sup> May, 2021.
- ✚ Delivered an “**Invited Talk**” on “The X factor of deep learning” in AICTE sponsored STTP conducted by Sri Ramakrishna Engineering College, Coimbatore on 9<sup>th</sup> June, 2021.
- ✚ Delivered an “**Invited Talk**” on “Natural Intelligence vs Machine Intelligence” in FDP conducted by SSN College of Engineering, Chennai on 2<sup>nd</sup> July, 2021.
- ✚ Delivered a “**Keynote Talk**” on “Research challenges in machine learning for practical applications” in International Conference on Parallel and Distributed Processing, Galgotias college of Engineering and Technology on 9<sup>th</sup> July, 2021.
- ✚ Delivered an “**Invited Talk**” on “Optimization of hyperparameters in CNN” in AICTE sponsored FDP conducted by Sri Krishna College of Engineering and Technology, Coimbatore on 15<sup>th</sup> July, 2021.
- ✚ Delivered an “**Invited Talk**” on “Convolutional Neural Networks for medical imaging applications” in IEEE sponsored Webinar conducted by Kumaraguru College of Technology, Coimbatore on 23<sup>rd</sup> July, 2021.
- ✚ Delivered a “**Keynote Talk**” on “Automated feature extraction in deep learning models” in International Conference on Computers, Remote Sensing and Aerospace conducted by AEIC, Tokyo, Japan on 23<sup>rd</sup> July, 2021.
- ✚ Delivered an “**Invited Talk**” on “Exploration of deep learning models for practical applications” in AICTE sponsored FDP on Machine Learning and Natural Language Processing, Chandigarh University, Punjab on 5<sup>th</sup> August, 2021.
- ✚ Delivered a “**Keynote Talk**” on “Natural Intelligence vs Artificial Intelligence” in International Conference on Intelligent Data Communication Technologies and Internet of Things, Coimbatore, India on 27<sup>th</sup> August, 2021.

- ✦ Delivered a “**Keynote Talk**” on “Automated Feature Extraction in deep learning models: A boon or a bane?” in IEEE International Conference on Computational Intelligence and Computing Applications, G H Raison College of Engineering, Nagpur, India on 26<sup>th</sup> November, 2021.
- ✦ Delivered an “**Invited Talk**” on “Exploration of deep learning models for practical applications” in AICTE sponsored FDP on Computer Vision: Past, Present and Future, Pune Institute of Computer Technology, Pune on 7<sup>th</sup> December, 2021
- ✦ Delivered an “**Invited Talk**” on “Deep Learning approaches for biomedical diagnostic applications” in AICTE sponsored FDP on Technological Innovation of Artificial Intelligence in Medical Diagnostics, Bhilai on 8<sup>th</sup> December, 2021.
- ✦ **Panel Discussion** member on “Trends and Approaches in the processing of bio signals” conducted by Signal Processing Society, IEEE Kerala Section on 15<sup>th</sup> December, 2021.
- ✦ Delivered an “**Invited Talk**” on “Natural Intelligence vs Artificial Intelligence” in FDP on Recent Innovative Trends in Biomedical Engineering and Technology conducted by Mepco Schlenk Engineering College, Sivakasi on 13<sup>th</sup> December, 2021.

**International Associations/Countries Visited:**

<b><u>Name of the Country</u></b>	<b><u>Institution</u></b>	<b><u>Remarks</u></b>
Srilanka	University of Moratuwa, Srilanka	<ul style="list-style-type: none"> <li>• Delivered an Invited Talk in the Faculty of Information Technology in University of Moratuwa, Srilanka</li> <li>• Delivered a keynote talk in the SLAAI-International Conference on Artificial Intelligence</li> </ul>
Turkey	Suleyman Demirel University, Turkey	<ul style="list-style-type: none"> <li>• Delivered a keynote talk in the International Conference on Artificial Intelligence and Mathematics in Engineering</li> </ul>
Romania	University of Romania	<ul style="list-style-type: none"> <li>• Visiting Professor</li> </ul>
Qatar	Qatar National Research Fund (QNRF)	<ul style="list-style-type: none"> <li>• International Peer Reviewer/ Panelist for evaluation of funded project proposals submitted to QNRF</li> </ul>
Spain	University of Valladolid	<ul style="list-style-type: none"> <li>• Post Doctoral Fellow</li> </ul>
European Union	European Commission	<ul style="list-style-type: none"> <li>• International Expert for evaluation of funded projects</li> </ul>
NSF – GRPF	USA	<ul style="list-style-type: none"> <li>• International Reviewer</li> </ul>

**Collaborative Research Labs:**

<b><u>Name of the Lab</u></b>	<b><u>Country</u></b>	<b><u>Projects involved</u></b>
Computational Intelligence and Information Systems (CI <sup>2</sup> S) Lab	Argentina	“HOLOTECH” – Obstacle detection for blind people using computational

		intelligence and image processing techniques
RIADI Laboratory, National School of Computer Sciences, University of Manouba	Tunisia	Artificial Intelligence approaches for tackling computational complexity in practical imaging applications
Laboratório De Processamento De Imagens, Sinais E Computação Aplicada	Brazil	Medical image processing, Text data processing and Pattern recognition
Research Centre for Applied Intelligence, University of Craiova, Romania	Romania	Novel deep learning algorithms for market prediction/business applications

### **Collaboration/Administrative Activities in other institutions:**

- Board of Studies (BoS) member of ECE Department, Mahendra Institute of Technology, Namakkal.
- Board of Studies (BoS) member of ECE Department, SNS College of Technology, Coimbatore.
- Department Advisory Committee (DAC) member of Department of Biomedical Engineering, Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu, India (2019-20, 2020-21, 2021-22)
- Department Advisory Committee (DAC) member of Department of EIE, Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu, India (2019-20, 2020-21, 2021-22)
- Doctoral Committee member of Ph.d Scholars:
  - ✓ Anna University – 25
  - ✓ Karunya University -12
  - ✓ SRM University - 1
- Completed NPTEL Online course on “Digital Image Processing” from IIT, Kharagpur (86%, Elite group)
- International Accreditation Committee Member (ARACIS) for Higher Education Institutions in Romania

### **Industry Interactions**

- NVIDIA University Ambassador and Certified Instructor for Deep Learning

### **Contact Address**

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Karunya University,  
Karunya Nagar,  
Coimbatore.