Jeny Rajan

Curriculum Vitae

Address

Department of Computer Science and Engineering
National Institute of Technology Karnataka (NITK)
Surathkal, Mangalore
India – 575 025

Contact Information

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Research Interests

Image Processing, Computer Vision, Deep Learning

Ph.D (in Computer Science)
Vision Lab, University of Antwerp, Belgium
Thesis Title : Estimation and removal of noise from single and multiple coil magnetic resonance images. 2009- 2012
Thesis Advisor: **Prof. Dr. Jan Sijbers**

M.Tech. Computer Science (*Specialization in Digital Image Computing*)
Department of Computer Science
University of Kerala, India
Thesis Title : Image denoising using partial differential equations [Received best thesis award from INAE, New Delhi].
Thesis Advisor : **Prof. Dr. M.R Kaimal**
CGPA: 3.16/4 (*first class with distinction*) 2003-2005

Date of Birth : 12 Feb 1978

Gender : Male

Awards and Honors

- **Young System Scientist Award** from System Society of India (SSI), 2016.
- **PhD Research Fellowship**, Vision Lab, University of Antwerp, Belgium, 2009.
- **Technology Breakthrough Award 2007**, from NeST, Technopark, Trivandrum, India (for the development of BrainAssist – a State-of-the-art tool for Brain Tumor Analysis)
- **Innovative Student Projects Award 2006**. (Best Thesis Award, M.Tech. Level) from the Indian National Academy of Engineering (INAE), New Delhi, India.
- Matlab Central, File exchange **pick of the week**, 2012.

Research and Teaching Experience

Assistant Professor February 2013 – Till date
Dept. of Computer Science and Engineering
National Institute of Technology Karnataka
Surathkal, Mangalore, India.

Postdoctoral Researcher November 2012 – February, 2013
Vision Lab, University of Antwerp, Belgium

PhD Research Student
Vision Lab, University of Antwerp, Belgium April 2009 - October 2012

Senior Specialist April 2005- March 2009
Medical Imaging Research Group,
Healthcare Division, NeST,
Technopark, Trivandrum.
(was working in collaboration with the Sree Chitra Thirunal Institute of Medical Sciences and Technology, Trivandrum, India)

Publications

Journals (Published or Accepted : 42)

1. S Niyas, S Chethana Vaisali, Iwrin Show, T G Chandrika, S Vinayagamani, Chandrasekharan Kesavadas, **Jeny Rajan**, 3D Residual U-Net: A Voxel-based FCD Segmentation using Shallow Sliced Stacking, Biomedical Signal Processing and Control (In Press).
2. S J Pawan, Rahul Sankar, Anubhav Jain, Mahir Jain, D V Darshan, B.N Anoop, Abhishek R. Kothari, M.Venkatesan,and **Jeny Rajan**, Capsule Network based Architectures for the Segmentation of Sub-Retinal Serous Fluid in OCT Images of Central Serous Chorioretinopathy, Medical & Biological Engineering & Computing, Vol 59, pp: 1245–1259, 2021.
3. B N Anoop, Kaushik S Kalmady, Akhil Udathu, Siddharth V, Girish G N, Abhishek R Kothari, **Jeny Rajan**, A Cascaded Convolutional Neural Network Architecture for Despeckling OCT images, Biomedical Signal Processing and Control, Vol 66, pp : 1 – 14, 2021
4. Tojo Mathew, Jyothi Kini, **Jeny Rajan**, Computational Methods for Automated Mitosis Detection in Histopathology Images: A Review, Biocybernetics and Biomedical Engineering, Vol. 41, Issue 1, pp : 64 – 82, 2021.
5. Edwin Thomas, Pawan S. J, Shushant Kumar, Anmol Horo, S. Niyas, S. Vinayagamani, Chandrasekharan Kesavadas and **Jeny Rajan**, Multi-Res-Attention UNet : A CNN Model for the Segmentation of Focal Cortical Dysplasia Lesions from Magnetic Resonance Images, IEEE Journal of Biomedical and Health Informatics, Vol. 25 (5), pp : 1724 – 1734, 2021.

6. PV Sudeep , P Palanisamy , Chandrasekharan Kesavadas , **Jeny Rajan**, An lmproved nonlocal maximum likelihood estimation method for denoising magnetic resonance images with spatially varying noise levels, Pattern Recognition Letters, Vol 139, pp: 34-41, 2020.
7. Girish G.N, Abhishek R Kothari, **Jeny Rajan**, " Marker Controlled Watershed Transform for Intra-Retinal Cysts Segmentation from Optical Coherence Tomography B-Scans", Pattern Recognition Letters, Vol 139, pp: 86-94, 2020.
8. B N Anoop, Rakesh Pavan, G N Girish, Abhishek Kothari and **Jeny Rajan**, Stack Generalized Deep Ensemble Learning for Retinal Layer Segmentation in Optical Coherence Tomography Images, Biocybernetics and Biomedical Engineering, Vol. 40 (4), pp: 1343-1358, 2020.
9. K M Bijay Dev, Pawan S. Jogi, S. Niyas, S Vinayagamani, Chandrasekharan Kesavadas and **Jeny Rajan**, Automatic Detection and Localization of FCD Lesions in Magnetic Resonance Images using Fully Convolutional Neural Network, Biomedical Signal Processing and Control, Vol 52, pp : 218-225, July 2019.
10. Chetan L Srinidhi, Aparna P and **Jeny Rajan**, Automated Method for Retinal Artery/Vein Separation via Graph Search Metaheuristic Approach, IEEE Transactions on Image Processing Vol. 28(6), pp: 2705-2718, June 2019.
11. G. N Girish, Bibhash Thakur, Sohini Roy Chowdhury, Abhishek R. Kothari and **Jeny Rajan**, Segmentation of Intra-Retinal Cysts from Optical Coherence Tomography Images using a Fully Convolutional Neural Network Model, IEEE Journal of Biomedical and Health Informatics, Vol 23(1), pp: 296 - 304, 2019.
12. Yamanappa, P V Sudeep, M. K. Sabu, **Jeny Rajan**, Non-local Means Image Denoising using Shapiro-Wilk Statistical Similarity Measure, IEEE Access, Vol. 6, pp:66914-66922, 2018
13. Rani Oomman Panicker, Kaushik S Kalmady, **Jeny Rajan**, Sabu M K, "Automatic Detection of Tuberculosis Bacilli from Microscopic Sputum Smear Images using Deep Learning Methods", Biocybernetics and Biomedical Engineering, Vol 38,pp: 691-699, 2018.
14. Krishna Kumar P, Tadashi Araki, **Jeny Rajan**, John R Laird, Andrew Nicolaides Jasjit S Suri, " State-of-the-Art Review on Automated Lumen and Adventitial Border Delineation in Carotid Ultrasound", Computer Programs and Methods in Biomedicine, Vol 163, pp: 155-168, 2018.
15. Chetan L Srinidhi, Aparna P, **Jeny Rajan**, A visual attention guided unsupervised feature learning for robust vessel delineation in retinal images, Biomedical Signal Processing and Control, Vol. 44, pp: 110-126, July 2018.
16. Girish G.N, Anima V A, Abhishek R Kothari, Sudeep P. V, Sohini Roy, **Jeny Rajan**, A Benchmark Study of Automated Intra-retinal Cyst Segmentation Algorithms using Optical Coherence Tomography B-Scans, Computer Methods and Programs in Biomedicine , Vol 153, pp 105-114, 2018.
17. Nagaraj Y, Pardhu Madipalli, **Jeny Rajan**, P Krishna Kumar, A V Narasimhadhan, Segmentation of intima media complex from carotid ultrasound images using wind driven optimization technique, Biomedical Signal Processing and Control, Vol 40, pp: 462-472, 2018.
18. Jithin Gokul, Madhu S. Nair, **Jeny Rajan**, "Guided SAR Image Despeckling with Probabilistic Non Local Weights", Computers and Geosciences, Vol 109, pp: 16-24, Dec. 2017
19. Sujin Surendran S, **Jeny Rajan**, Madhu S Nair, “Rotation Invariant and Two-Level Filtering Approaches for Accelerating the Non-Local Maximum Likelihood Estimation for Rician Noise Reduction in MR Images”, CSI Transactions on ICT (Springer), Vol 5, pp:247-257, 2017.

20. Chetan L Srinidhi, Aparna P, **Jeny Rajan**, "Recent advancements in retinal vessel segmentation", Journal of Medical Systems, Vol. 41, pp 70, 2017.

21. Sudeep P.V, Palanisamy P, C. Kesavadas, Jan Sijbers, Arjan den Dekker, **Jeny Rajan**, "A Nonlocal Maximum Likelihood Estimation Method for Enhancing Magnetic Resonance Phase Maps", Signal Image and Video Processing, Vol. 11, pp: 913:920, 2017.

22. Krishna Kumar P, Luca Saba, Tadashi Araki, **Jeny Rajan**, Francesco Lavra, Nobutaka Ikeda, Aditya M. Sharma, Shoaib Shafique, Andrew Nicolaides, John L Laird, Ajay Gupta, Jasjit S. Suri, "Accurate Lumen Diameter Measurement in Curved Vessels based on Iterative Spatial Transformation and Scale Space Techniques", Medical & Biological Engineering & Computing, pp 1:20, 2016.

23. Tadashi Araki, Krishna Kumar P, Harman S Suri, Nobutaka Ikeda, Ajay Gupta, Luca Saba, **Jeny Rajan**, Francesco Lavra, Aditya M. Sharma, Shoaib Shafique, Andrew Nicolaides, John L Laird, Jasjit S. Suri, "Two Automated Techniques for Carotid Lumen Diameter Measurement: Regional versus Boundary Approaches", Journal of Medical Systems, Vol. 40 (182), pp: 1:19, 2016.

24. P.V Sudeep, P Palanisamy, **Jeny Rajan**, Hediyeh Baradaran, Luca Saba, Ajay Gupta, Jasjit S Suri, "Speckle Reduction in Medical Ultrasound Images using an Unbiased Non-Local Means Method", Biomedical Signal Processing and Control, Vol 28, pp: 1-8, 2016.

25. Tadashi Araki, Asheed Kumar, Krishna Kumar P, Nobutaka Ikeda, Ajay Gupta, Luca Saba, **Jeny Rajan,** Francesco Lavra, Aditya M Sharma, Shoaib Shafique, Andrew Nicolaides, John R. Laird, , Jasjit S. Suri, "Ultrasound-Based Automated Carotid Lumen Diameter/Stenosis Measurement and its Validation System", Journal of Vascular Ultrasound, Vol 40 (3),pp 120-134, 2016.

26. P.V. Sudeep, S. Issac Niwas S, P. Palanisamy, **Jeny Rajan**, Yu. Xiaojun, Xianghong Wang, Yuemei Luo, Linbo Liu, Enhancement and Bias Removal of Optical Coherence Tomography Images: an Iterative Approach with Adaptive Bilateral Filtering, Computers in Biology and Medicine, Vol 71, pp 97-107, 2016.

27. Luca Saba, Tadashi Araki, Krishna Kumar, **Jeny Rajan**, Francesco Lavra, Nobutaka Ikeda, Aditya M Sharma, Shoaib Shafique, Andrew Nicolaides, John R Laird, Ajay Gupta, and Jasjit Suri, Carotid Inter-Adventitial Diameter is More Strongly Related to Plaque Score Than Lumen Diameter: An Automated Tool for Stroke Analysis, Journal of Clinical Ultrasound, Vol 44 (4), pp 210-220, 2016.

28. Adithya Upadhya,, Basavaraj Talawar, **Jeny Rajan**, "GPU implementation of Non Local Maximum Likelihood method for MRI denoising" Journal of Real Time Image Processing, Vol. 13, pp:181-192, 2017.

29. Rani Oomman Panicker, Biju Soman, Gagan Saini, **Jeny Rajan**, "A review of automatic methods based on image processing techniques for tuberculosis detection from microscopic sputum smear images", Journal of Medical Systems, Vol. 40,pp 1 - 13, 2016.

30. Aditya M.Sharma, Ajay Gupta, Krishna Kumar P, **Jeny Rajan**, Luca Saba, Ikeda Nobutaka, John R Laird, Andrew Nicolades, Jasjit S. Suri, "A Review on Carotid Ultrasound Atherosclerotic Tissue Characterization and Stroke Risk Stratification in Machine Learning Framework", Current Atherosclerosis Reports (Springer), Vol 17, pp 1: 13, 2015.

31. Krishna Kumar P, Darshan P, Sheethal Kumar, Rahul Ravindra, **Jeny Rajan**, Luca Saba, Jasjit S Suri, "Magnetic resonance image denoising using nonlocal maximum likelihood paradigm in

DCT-framework", International Journal of Imaging Systems and Technology, Vol 25, pp 256 : 264, 2015.

32. Sudeep P.V, Palanisamy P, Chandrasekharan Kesavadas, **Jeny Rajan**, "Nonlocal Linear Minimum Mean Square Error Methods for Denoising MRI", Biomedical Signal Processing and Control (Elsevier) , Vol 20, pp 125-134, 2015.
33. Riji R, **Jeny Rajan**, Jan Sijbers, Madhu S Nair, " Iterative Bilateral Filter for Rician Noise Reduction in MR Images", *Signal, Image and Video Processing* , Vol 9, pp 1543-1548, 2015.
34. **Jeny Rajan**, Arnold J. den Dekker and Jan Sijbers, "A new non-local maximum likelihood estimation method for Rician noise reduction in magnetic resonance images using the Kolmogorov-Smirnov test ", *Signal Processing,* Vol 103, pp 16-23, 2014.
35. Jelle Veraart, **Jeny Rajan**, Ronald R. Peeters, Alexander Leemans, Stefan Sunaert, Jan Sijbers, " Comprehensive framework for accurate diffusion MRI parameter estimation ", *Magnetic Resonance in Medicine,* Vol. 81, issue 4, pp. 972-984, 2013.
36. **Jeny Rajan**, Jelle Veraart, Johan Van Audekerke, Marleen Verhoye and Jan Sijbers, "Nonlocal maximum likelihood estimation method for denoising multiple-coil magnetic resonance images", Magnetic Resonance Imaging, Vol 30, pp. 1512-1518, 2012.
37. Mai Zhenhua, **Jeny Rajan**, Marleen Verhoye, Jan Sijbers," Robust edge-directed interpolation of magnetic resonance images". Physics in Medicine and Biology,vol. 56, pp. 7287-7303, 2011.
38. **Jeny Rajan**, Ben Jeurissen, Marleen Verhoye, Johan Van Audekerke and Jan Sijbers, " Maximum likelihood estimation based denoising of magnetic resonance images using restricted local neighborhoods", Physics in Medicine and Biology,Vol 56, pp 5221-5234,2011.
39. **Jeny Rajan**, Dirk Poot, Jaber Juntu andJan Sijbers, "Noise Measurement from magnitude MRI using local estimates of variance and skewness", Physics in Medicine and Biology, Vol 55, pp N441-N449, 2010.
40. Jaber Juntu, Jan Sijbers, Steve De Baker, **Jeny Rajan**, Dirk Van Dyck, "A Machine Learning Study of Several Classifiers Trained with Texture Analysis Features to Differentiate Benign from Malignant Soft Tissue Tumors in T1-MRI images", Journal of Magnetic Resonance Imaging (JMRI), Vol 31,pp 680-689, 2010.
41. **Jeny Rajan,** K. Kannan, C. Kesavadas, Bejoy Thomas "Focal Cortical Dysplasia (FCD) Lesion Analysis with Complex Diffusion Approach, Computerized Medical Imaging and Graphics, Vol 33 pp 553-558, 2009.
42. **Jeny Rajan**, K. Kannan, M.R. Kaimal, "An Improved Hybrid Method for Molecular Image Denoising", Journal of Mathematical Imaging and Vision, Vol 31, pp 71-78, May 2008.

Conferences (Published or Accepted : 24)

1. Narendra Rao T. J., Girish G N, Abhishek R. Kothari and **Jeny Rajan,** Deep Learning Based Sub-Retinal Fluid Segmentation in Central Serous Chorioretinopathy Optical Coherence Tomography Scans, Proceedings of IEEE Eng Med Biol Soc, pp: 978 - 981, 2019.

2. GN Girish, Banoth Saikumar, Sohini Roychowdhury, Abhishek R. Kothari and **Jeny Rajan**, "Depthwise Separable Convolutional Neural Network Model for Intra-Retinal Cysts Segmentation", Proceedings of IEEE Eng Med Biol Soc, pp: 2027- 2031, 2019.
3. Sandeep N Menon, V B Vineeth Reddy, A Yeshwanth, Anoop B N, and **Jeny Rajan**, A Novel Deep learning approach for the removal of Speckle Noise from Optical Coherence Tomography Images using Gated Convolution Deconvolution Structure, Proceedings of 3rd International Conference on Computer Vision and Image Processing (Springer), pp: 115-126, 2020.
4. T Guru Pradeep Reddy, Kandiraju Sai Ashritha, Girish GN, Shashidhar G Koolagudi, **Jeny Rajan**, Retinal Layer Segmentation using Dilated Convolutions, Proceedings of 3rd International Conference on Computer Vision and Image Processing (Springer), pp: 279-292, 2020..
5. Krishna Kumar P, C. Kesavadas, **Jeny Rajan**, A Semi-automatic Method for Carotid Artery Wall Segmentation in MR Images, 2016 IEEE Annual India Conference (INDICON) , pp 1-6, 2016.
6. Remya K Sudheesh, **Jeny Rajan**, V. S. Veena, Sujathan K, "Study of malignancy associated changes in sputum images as an indicator of lung cancer", IEEE Students' Technology Symposium, IIT Kharagpur 2016 (Accepted).
7. Gagan Saini, Rani Oomman Panicker, Biju Soman, **Jeny Rajan**, Comparative study of different autofocus methods for TB bacilli detection from bright field microscopy images, in Proceedings of IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics, pp 95-100, 2016.
8. Girish G.N, Abhishek R. Kothari, **Jeny Rajan**, Automated Segmentation of Intra-Retinal Cysts from Optical Coherence Tomography Scans Using Marker Controlled Watershed Transform, in Proceedings of 2016 IEEE 38th Annual international conference of the Engineering in Medicine and Biology Society (EMBS 2016), pp 1292-1295, 2016.
9. Soorajkumar R, Krishnakumar P, Girish D, **Jeny Rajan**, Coupled PDE for ultrasound despeckling using ENI Classification, Twelfth International Multi-Conference on Information Processing 2016 (IMCIP 2016) Procedia Computer Science, Vol 89 (2016), pp 658 - 665, 2016.
10. Soorajkumar R, Krishna Kumar P, Girish D, **Jeny Rajan**, Fourth Order PDE Based Ultrasound Despeckling Using ENI Classification, in Proceedings of international conference on signal processing and communications (SPCOM 2016, IISc Bangalore), pp 1-5, 2017.
11. Narendra Rao T.J, Girish G N and **Jeny Rajan**, An Improved Contextual Information Based Approach for Anomaly Detection via Adaptive Inference for Surveillance, Proceedings of International Conference on Computer Vision and Image Processing, Advances in Intelligent Systems and Computing 459 (Springer), pp 133-147, 2017. (Received best student paper award).
12. Aneesh G Nath, Madhu S Nair, **Jeny Rajan**, "Single image super resolution from compressive samples using two level sparsity based reconstruction", Procedia Computer Science (Elsevier) Vol. 46, pp 1643-1652, 2015.

13. Sudeep P.V, Palanisamy P, **Jeny Rajan**, “A Hybrid model for Rician noise reduction in MRI”, 2013 Second International Conference on Advanced Computing, Networking and Security (ADCONS 2013, IEEE), pp 58-61, 2013.

14. **Jeny Rajan**, Arnold J. den Dekker, JaberJuntu and Jan Sijbers, “A new non local maximum likelihood estimation method for denoising Magnetic Resonance images", In: P. Maji et al. (Eds.): PReMI 2013 (ISI Calcutta), LNCS 8251, pp. 451–458, 2013, Springer, Heidelberg (2013)

15. **Jeny Rajan**, Johan Van Audekerke, Annemie Van der Linden, Marleen Verhoye and Jan Sijbers, "An adaptive non local maximum likelihood estimation method for denoising magnetic resonance images", IEEE International Symposium on Biomedical Imaging (ISBI 2012), Barcelona, pp 1136-1139, 2012.

16. Mai Zhenhua, **Jeny Rajan**, Marleen Verhoye, Jan Sijbers, "Robust edge-directed interpolation of magnetic resonance images", 4th International Conference on Biomedical Engineering and Informatics (BEMI), pp 471-475, 2011.

17. **Jeny Rajan**, Marleen Verhoye, Jan Sijbers, "A Maximum Likelihood Estimation Method for Denoising Magnitude MRI using Restricted Local Neighborhood", SPIE Medical Imaging2011, Orlando, Vol. 7962,79624U, 2011.

18. **Jeny Rajan**, Jan Sijbers, Dirk Poot, Jaber Juntu, "Segmentation based Noise Variance Estimation from background MRI data", Proceedings of International Conference on Image Analysis and Recognition (ICIAR) 2010, (LNCS Vol. 6111), pp 62-70, 2010.

19. **Jeny Rajan**, Ben Jeurissen, Jan Sijbers, Kannan, “Denoising Magnetic Resonance Images using 4^{th} Order Complex Diffusion”, in Proceedings of 13th International Machine Vision and Image Processing Conference (IEEE), pp 123-127, 2009.

20. **Jeny Rajan,** K.Kannan, M.R. Kaimal, “Smoothening and Sharpening Effects of Theta in Complex Diffusion for Image Processing”,in Proceedings of Seventh International Conference on Advances in Pattern Recognition (IEEE), pp 325-328, February 2009.

21. **Jeny Rajan,** K. Kannan, Thomas Francis, C. Kesavadas, Chandrasekhar P.S, M.R Brain Volume Analysis using BrainAssist, Proceedings of International Conference on Systemics Cybernetics & Informatics, January 2008.

22. K. Kannan, **Jeny Rajan,** “A Novel Method for Automatic Heart Localization from Thoracic SPECT Planar Images”, in Proceedings of National Conference on Computer Vision, Pattern Recognition, Image Processing & Graphics (NCVPRIPG08), January 2008.

23. **Jeny Rajan**, M.R. Kaimal, “Speckle reduction in Images with WEAD & WECD”, Lecture Notes in Computer Science (LNCS), Springer – Verlag, Vol. 4338, pp 184-193, December 2006

24. **Jeny Rajan**, M.R.Kaimal, “Image Denoising using Wavelet Embedded Anisotropic Diffusion (WEAD)”, in Proceedings of IET International Conference on Visual Information Engineering , pp 589-593 , September 2006.

Book Chapters (Published or accepted : 5)

1. Rani Oomman Panicker, SJ Pawan, **Jeny Rajan**, MK Sabu, A Lightweight Convolutional Neural Network Model for Tuberculosis Bacilli Detection from Microscopic Sputum Smear Images, Machine Learning for Healthcare Applications (John Wiley & Sons, Inc.) pp 343-351, 2021 (https://doi.org/10.1002/9781119792611.ch22).

2. P. V Sudeep, P Palanisamy, and **Jeny Rajan**, Advances in Ultrasound Despeckling: An Overview, In : Advanced Classification Techniques for Healthcare Analysis, IGI Global, pp: 311 – 335, Feb 2019 (doi : 10.4018/978-1-5225-7796-6.ch014)

3. Anoop B N, Sudeep P V, Girish G N, Abhishek R Kothari **, Jeny Rajan**, "Despeckling algorithms for Optical Coherence Tomography images : A review", Advanced Classification Techniques for Healthcare Analysis, IGI Global, pp:286-310, Feb 2019 (doi : 10.4018/978-1-5225-7796-6.ch013)

4. Narendra Rao T.J, **Jeny Rajan**, "A Smart Visual Surveillance System For Better Crime Management", In S Bhattacharyya, A Mukherjee, I Pan, P Dutta, AK Bhaumik (Eds.) Hybrid Intelligent Techniques for Pattern Analysis and Understanding, CRC Press (Taylor & Francis) (ISBN: 978-1-4987-69358), 2018. [ISBN-13: 978-1-4987-6935-8 (Hardback)]

5. Narendra Rao T.J., Girish, G. N., Mohit P. Tahiliani and **Jeny Rajan**, Anomalous event detection methodologies for surveillance application : An insight. In Anwar, M.I., Khosla, A., & Kapoor. R. (Eds.), Advanced Concepts in Real-Time Image and Video Processing. Hershey, PA: IGI Global. 2018. (doi : https://doi.org/10.4018/978-1-5225-2848-7.ch001)

Citation Details

Google Scholar : https://scholar.google.co.in/citations?user=7YrGeNoAAAAJ&hl=en
Scopus : https://www.scopus.com/authid/detail.uri?authorId=23470813600
ResearcherID : http://www.researcherid.com/rid/G-9484-2011

Funded Research Projects

1. **Project Title** : Retinal cysts identification and quantification from low SNR optical coherence tomography scans using image processing techniques.
Role : Principal Investigator
Funding Agency : DST (SERB, EMR grant)
Amount : Rs. 30 Lahks
Duration : 3 Years (March 2017 -March 2020) [Completed]

2. **Project Title** : Automatic detection and quantification of focal cortical dysplasia regions from magnetic resonance brain images using machine learning techniques.
Role : Principal Investigator
Funding Agency : CSRI, DST
Amount : Rs. 33 Lakhs
Duration : 3 Years (August 2018 – August 2021) [Ongoing]

3. **Project Title** : Development of an Artificial Intelligence based System for Comprehensive Cerebral Arterial Stroke Imaging and Prognostication.
Role : Principal Investigator
Funding Agency : DBT
Amount : Rs. 57.8 Lakhs (Multi Institutional Project)
Duration : 2 Years (March 2021 – March 2023) [Ongoing]

4. **Project Title** : Speaker recognition system for Kannada language in emotional environments.
Role : Co- Principal Investigator
Funding Agency : CSRI, DST
Amount : Rs. 42.3 Lakhs
Duration : 2 Years (March 2021 – March 2024) [Ongoing]

PhD and M.Tech Guidance

PhD (Completed) : 3, Ongoing : 7
M.Tech (by Research) : Completed : 2
M.Tech. Completed : 31, Ongoing : 4

(Jeny Rajan)