Faculty Profile

Dr. J Dinesh Peter, M.Tech., Ph.D
Associate Professor,
Department of Computer Science and Engineering
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Academic Background

Degree	University	Year
Ph.D	National Institute of Technology Calicut, Kerala	2010
M.Tech	Manonmanium Sundaranar University, Tirunelveli	2005
B.E	Bharathiar University, Coimbatore	2001

Courses Taught

- Artificial Intelligence
- Cyber Forensics
- Interactive Game Design
- Theory of Computation
- Computer Graphics
- User Interface Design

Research Interests

- Digital Image Processing
- Computer Vision
- Medical Imaging

Most recent Publications

- DJ Jagannath, RJ Dolly, J.Dinesh Peter, Deep Learning Strategies for Foetal Electrocardiogram Signal Synthesis, Pattern Recognition Letters, (IF: 1.952 - SCIE), 136, pp. 286 - 292, August 2020, DOI: 10.1016/j.patrec.2020.06.016
- RJ Dolly, DJ Jagannath, J.Dinesh Peter, Image fusion for stabilized medical video sequence using multimodal parametric registration, Pattern Recognition Letters, (IF: 1.952 - SCIE), 135, pp. 390 - 401, July 2020
- RJ Dolly, DJ Jagannath, J.Dinesh Peter, A Novel Adaptive Frame Determination Methodology with Fixed and Adaptive Thresholds Using Affine Motion Parameter for Video Quality Enhancement, IETE Journal of Research, (IF: 0.793 - SCIE),DOI: 10.1080/03772063.2020.1756931
- A Celestine, J.Dinesh Peter, Investigations on adaptive connectivity and shape prior based fuzzy graph-cut colour image segmentation, Expert Systems, (IF: 1.505 - SCIE), DOI: 10.1111/exsy.12554 (Published online 08 April 2020)
- S Durga, S Mohan, J.Dinesh Peter, Proximity-based cloud resource provisioning for deep learning applications in smart healthcare, Expert Systems, (IF: 1.505 - SCIE), DOI: 10.1111/exsy.12524 (Published online 29 Jan 2020)
- DJ Jagannath, RJ Dolly, J.Dinesh Peter, Composite Deep Belief Network approach for enhanced Antepartum foetal electrocardiogram signal, Cognitive Systems Research, (IF: 1.384 - SCIE), 59, pp. 198 - 203, 2020
- A Agnes, J Anitha, Alex Pandian, J.Dinesh Peter, Classification of Mammogram Images Using Multiscale all Convolutional Neural Network (MA-CNN), Journal of Medical Systems, (IF: 2.415 - SCIE), 44, 2020
- J.Jemima Jebaseeli, C.Anand Deva Durai, J.Dinesh Peter, Extraction of retinal blood vessels on fundus images by kirsch's template and fuzzy c-means, Journal of Medical Physics, 44, pp. 21 - 26, 2019
- J. Jemima Jebaseeli, C.Anand Deva Durai, J.Dinesh Peter, Retinal blood vessel segmentation from diabetic retinopathy images using tandem PCNN model and deep learning based SVM, Journal of Optik, (IF: 1.914 - SCIE), 199, Article 163328, Dec 2019
- DJ Jaganath, RJ Dolly, J.Dinesh Peter, A Novel Bayesian Deep Learning Methodology for Enhanced Foetal Cardiac Signal Mining, Journal of Experimental & Theoretical Artificial Intelligence, (IF: 1.011 - SCIE), 31, pp.215 - 224, 2019
- T.Jemima Jebaseeli, C.Anand Deva Durai, J.Dinesh Peter, Retinal Blood Vessel Segmentation from Depigmented Diabetic Retinopathy Images, IETE Journal of Research, (IF: 0.829 - SCIE) DOI:10.1080/03772063.2018.1535918, (Published online 25 Oct 2018)

- T. Jemima Jebaseeli, C.Anand Deva Durai, J.Dinesh Peter, Segmentation of retinal blood vessels from ophthalmologic Diabetic Retinopathy images, Computers and Electrical Engineering, (IF: 1.747 - SCIE), 73, pp. 245-258, 2019
- T. Jemima Jebaseeli, C.Anand Deva Durai, J.Dinesh Peter, IoT based Sustainable Diabetic Retinopathy Diagnosis System, Sustainable Computing, Informatics and Systems, (IF: 1.196 - SCIE), DOI:10.1016/j.suscom.2018.08.004, (Published online 16 Aug 2018)
- A Agnes, Anitha J, J.Dinesh Peter, Automatic Lung Segmentation in Low Dose Chest CT Scans using Convolutional Deep and Wide Network (CDWN), Neural Computing and Applications, (IF: 4.213 - SCIE), 32, pp. 15845 - 15855, 2020, DOI:10.1007/s00521-018-3877-3,
- A Celestine, J.Dinesh Peter, An IoT based Modified Graph-cut Segmentation with Optimized Adaptive Connectivity and Shape Priors Sustainable Computing, Informatics and Systems, (IF: 1.196 - SCIE), DOI:10.1016/j.suscom.2018.05.009, (Published online 06 June 2018)
- P.Getzi, A.Sharmila, J.Dinesh Peter, J. Immanuel, Resource-aware virtual machine migration in IoT cloud, Future Generation Computer Systems, (IF: 4.639 - SCIE), 85, pp. 173-183, 2018
- J.Jebaveerasingh, J.Dinesh Peter, Super-resolution of retinal images using multi-kernel SVR for IoT healthcare applications, Future Generation Computer Systems, (IF: 4.639 - SCIE), 83, pp. 338-346, 2018
- P. Getzi, A. Sharmila, J. Dinesh Peter, J. Immanuel, A combined forecast-based virtual machine migration in cloud data centers Computers and Electrical Engineering, (IF: 1.747 - SCIE), 69, pp. 287 - 300, July 2018
- S. Durga, S. Mohan, J. Dinesh Peter, Towards benefiting both cloud users and service providers through resource provisioning International Journal of Information Technologies and Systems Approach, 12, pp. 37-51, 2019
- S. Durga, S. Mohan, J. Dinesh Peter, S. Surya, Context-aware adaptive resource provisioning for mobile clients in intra-cloud environment, 22, pp. 9915 - 9928, Cluster Computing, (IF: 2.040 - SCIE), DOI:10.1007/s10586-018-1945-1
- RJ Dolly, G.Josemin Bala, J.Dinesh Peter, A hybrid tactic model intended for video compression using global affine motion and local free-form transformation parameters, Arabian Journal of Science and Engineering, (IF: 1.092 - SCIE), 43, pp. 4249 - 4263, Aug 2018

- J.Jebaveerasingh, J.Dinesh Peter, SK-SVR: Sigmoid kernel support vector regression based in-scale single image super-resolution, Pattern Recognition Letters, (IF: 1.952 - SCIE), 94, pp. 114 - 153, 15 July 2017
- Emmanuel Joy, J.Dinesh Peter, Visual tracking with conditionally adaptive multiple template update scheme for intricate videos, Multimedia Systems, (IF: 1.703 - SCIE), 24 (2), pp. 175 – 194, March 2018
- Emmanuel Joy, J. Dinesh Peter, Perspective model-based visual tracking scheme for robust tracking of objects in complex environs, Multimedia Tools and Techniques, (IF: 1.541 - SCIE), 77, pp. 19745 - 19768, Aug 2018
- Anitha J, J.Dinesh Peter, Dual Stage Adaptive Thresholding (DuSAT) technique for Automatic Mass detection in Mammograms Computer methods and Programs in Biomedicine, (IF:2.674 - SCIE), 138, pp.93-104, Jan 2017
- RJ Dolly, J.Dinesh Peter, Performance Enhanced Video Compression Technique using Affine Motion Estimation, Journal of Computational Science, (IF: 1.925 - SCIE), 18, pp.1-11, Jan 2017
- Anitha J, J.Dinesh Peter, Mammogram segmentation using maximal cell strength updation in cellular automata, Int. J. of Med BiolEngComput., (IF: 1.971 - SCIE), 53, pp. 737-749, 2015
- J.Dinesh Peter, V.K. Govindan, Abraham T. Mathew, NonLocal-Means Image Denoising Technique using Robust M-Estimator, Journal of Computer Science & Technology, (IF: 0.878 - SCIE), 25, pp. 623-631, 2010
- S. Durga, S. Mohan, J. Dinesh Peter Multi-context based optimal resource provisioning in mobile cloud environments Journal of Computational and Theoretical Nanoscience, 15, pp. 1762 - 1768, 2018
- Anitha J, J. Dinesh Peter, A Multiresolution Ripplet Transform for breast cancer diagnosis in digital mammograms, Recent Patents in Computer, Bentham science, 9, pp. 195-202, 2016
- Anitha J, J. Dinesh Peter, Mass Segmentation in Mammograms using a Kernel based Fuzzy Level Set (KFLS) Method Int. J. Biomedical Engineering and Technology, Inderscience, 19, pp. 133-153, 2015
- RJ Dolly, Josemin Bala, J.Dinesh Peter, Adaptation Of Frames For GOP Using NSEW Affine Translation For Effective Privacy Protection Mechanism, Int. J. Electronic Security and Digital Forensics, Inderscience, 7(3), pp. 223-233, 2015
- Statistical investigations on hybrid frame assessment tactics for video compression, 3rd International Conference on Inventive Systems and Control, ICISC 2019, 9036393, 588-591, 2019

- DeepCS: Deep convolutional neural network and SVM based single image super-resolution, (Springer LNCS) DATRA – MICCAI 2018, Granada, Spain, 11076, 3 - 13, 2018
- Video stabilization for high-quality medical video compression, (Springer LNCV&B Series) Clinical and Medical Image Analysis, KITS, Coimbatore, 27 & 28 July 2018 31, 255 – 259, 2019
- Segmentation of Type II Diabetic Patient's Retinal Blood Vessel to Diagnose Diabetic Retinopathy, (Springer LNCV&B Series), Clinical and Medical Image Analysis, KITS, Coimbatore, 27 & 28 July 2018, 31, pp. 153 - 160
- Fault Tolerant Cloud System Based on Fault Tree Analysis, (Springer AISC Series), Big Data and Cloud Computing @ KITS, Coimbatore,23 & 24 March 2018, 750, pp. 1 – 9, 2019
- A two-stage queue model for context-aware task scheduling in mobile multimedia cloud environments, (Springer AISC Series) Big Data and Cloud Computing @ KITS, Coimbatore, 1 April 2017, Vol. 645, pp. 287-297 & 2018
- Cuckoo Based Resource Allocation for Mobile Cloud Environments, (Springer AISC Series) Computational Intelligence, Cyber Security and Computational Models @ PSG Tech, Coimbatore &17-19 December 2015, Vol. 412, pp. 543-550 & 2015
- Adaptation of frames for GOP using NSEW affine translation for video compression, ICECS 2014 @ Coimbatore, India & 13-14 Feb 2014, 2014
- Tracking of unique colored objects: A simple, fast visual object detection and tracking technique, (Published in Springer) Informatics and Communication Technologies for Societal development, 13-15 March 2014, pp. 149-156 & 2014
- Automatic adaptation of frames using NSEW affine Translation, (Published in Springer), Informatics and Communication Technologies for Societal development 13-15 March 2014, pp. 139-148 & 2014
- Modified Graph-Cut Algorithm with Adaptive Shape Prior, (Springer AISC Series), Advanced Computing, Networking, and Informatics Raipur & 12-14 June 2013, Vol. 243, pp. 473-479 & 2013
- A region growing based mammogram segmentation using multi resolution analysis, MDA Images and Signals in Medicine, Biotechnology, Chemistry and Food Industry @ New York, USA & 13-17 July 2013, pp. 117-126 & 2013
- A wavelet based morphological mass detection and classification in mammograms Machine Vision and Image Processing @ Taipei, Taiwan & 14-15 December 2012, 2012

- A Novel Adaptive Nonlocal Means for Image Denoising, (Journal of Procedia Engineering – Elsevier), Modelling, Optimization and Computing & 10-11 April 2012, Vol. 38, pp. 3278 – 3282 & 2012
- Robust Estimation Approach for NL-Means Filter, (Springer LNCS) Visual Computing – ISVC 2008 @ Las Vegas, USA & 1-3 December 2008, Vol. LNCS 5359, pp. 571-580 & 2008
- Acquainted Non-convexity Multiresolution Based Optimization for Affine Parameter Estimation in Image Registration (Springer LNCS), Advances in Computation and Intelligence – ISICA 2008 @ Wuhan, China & 14-21 December 2008, Vol. LNCS. 5370, pp. 171 – 180 & 2008
- A Phase and intensity reserved image denoising technique, Advanced Computing and Communication – ADCOM 2008, @ NITK Surathkal& 20-23 Dec 2006, 2007

Projects Guided

- Enhanced Approaches for Mass Detection and Classification in Digital Mammograms
- Investigation of Visual Tracking Tactics for Intricate Videos
- Efficient Live Virtual Machine Migration Techniques for Cloud Data Centre
- Effective Resource Provisioning Techniques for Mobile Clients in Cloud Computing Environment
- Learning based Single Image Super Resolution Algorithms for Natural and Medical Images
- Graph cut Segmentation with Optimized Adaptive Connectivity and Shape Priors
- Medical Image Segmentation
- Automatic Video Captioning using Deep learning techniques
- Predictive model for Healthcare using Big Data Analytics
- Secured Image Communication
- 3D vision sensor based assistive solution for Parkinson patients
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Memberships in Professional societies

- Institution of Engineers India (M-1585260)
- Computer Society of India (N1152930)

Significant achievements:

- Received Young Scientist fund Rs.1,58,000 from DST to present paper in MDA2013 conference @ NewYork, USA. (Ref.no. SB/ITS-Y/1726/2013-2014).
- Received financial assistance from SERB-DST India for participating in "21st MICCAI 2018" at Granada, Spain during 16th – 20thSeptember, 2018. (File No. ITS/2018/004082)
- Receved sponsorship of Rs. 50,000 from M/s SUSE India for organizing International Conference on Big Data and Cloud Computing on 1 & 2 April 2017.
- Received sponsorship of Rs. 1,50,000 from M/s Novell Software Development Ltd., Bangalore for organizing Asian Conference on Membrane Computing on 18 & 19 September 2019.
- Received support of Rs. 30,000 from CSIR to organize Seminar on Computational Analysis in Medical Image Processing conducted in July 2012. (Ref.no. SYM/7116/11-HRD dated April 23, 2012.)