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Area of Specialization: Image Processing, Signal Processing

List of Publications

1. Alex DM, Chandy DA. Exploration on Framework for Chronic Kidney Disease Identification Based on 2D Ultrasound Images: A Survey. Current Medical Imaging. 2020 Sep. DOI: 10.2174/1573405616666200923162600.
2. Alex D.M., Abraham Chandy D. (2020) Investigations on Performances of Pre-trained U-Net Models for 2D Ultrasound Kidney Image Segmentation. In: Miraz M.H., Excell P.S., Ware A., Soomro S., Ali M. (eds) Emerging Technologies in Computing. iCETiC 2020. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 332. Springer, Cham. https://doi.org/10.1007/978-3-030-60036-5_13
3. D. M. Alex and D. A. Chandy, "Evaluation of Inpainting in Speckled and Despeckled 2D Ultrasound Medical Images," 2020 Advanced Computing and Communication Technologies for High Performance Applications (ACCTHPA), Cochin, India, 2020, pp. 221-225, doi: 10.1109/ACCTHPA49271.2020.9213203.
4. Babu, C., Abraham Chandy, D. & Karthigaikumar, P. Novel chroma subsampling patterns for wireless capsule endoscopy compression. Neural Comput & Applic 32, 6353–6362 (2020). <https://doi.org/10.1007/s00521-019-04143-7>
5. Babu C, Chandy DA. A Review on Lossless Compression Techniques for Wireless Capsule Endoscopic Data. Current Medical Imaging. 2020 Apr. DOI: 10.2174/1573405616666200423084725.
6. Deepthy Mary Alex, A. Hepzibah Christinal, D. Abraham Chandy, Arvinder Singh, M Pushkaran, Speckle noise suppression in 2D ultrasound kidney images using local pattern based topological derivative, Pattern Recognition Letters, Volume 131, 2020, Pages 49-55, ISSN 0167-8655, <https://doi.org/10.1016/j.patrec.2019.12.005>.

7. Chandy D.A., Christinal H.A., Chandrasekaran R., Alex D.M. (2020) Comparison of PSO and Sequential Search Algorithms for Improvisation of Entropy-Based Ear Localization. In: Nagar A., Deep K., Bansal J., Das K. (eds) Soft Computing for Problem Solving 2019. Advances in Intelligent Systems and Computing, vol 1138. Springer, Singapore. https://doi.org/10.1007/978-981-15-3290-0_4
8. L. C. V. Meunier and D. A. Chandy, "Design of convolution neural network for facial emotion recognition," 2019 2nd International Conference on Signal Processing and Communication (ICSPC), Coimbatore, India, 2019, pp. 376-379, doi: 10.1109/ICSPC46172.2019.8976814.
9. D. Abraham Chandy; Biji Yohannan; A. Hepzibah Christinal; Riju Ghosh. "Drivable path detection based on image fusion for unmanned ground vehicles" International Journal of Vehicle Autonomous Systems (IJVAS), Vol. 14, No. 3, 2019
10. Babu C., Abraham Chandy D. (2019) A Novel Corner Elimination Method for the Compression of Wireless Capsule Endoscopic Videos. In: Peter J., Fernandes S., Eduardo Thomaz C., Viriri S. (eds) Computer Aided Intervention and Diagnostics in Clinical and Medical Images. Lecture Notes in Computational Vision and Biomechanics, vol 31. Springer, Cham. https://doi.org/10.1007/978-3-030-04061-1_16
11. D. Shamia, D. Abraham Chandy, Intelligent system for cross-spectral and cross-distance face matching, Computers & Electrical Engineering, Volume 71, 2018, Pages 915-924, ISSN 0045-7906, <https://doi.org/10.1016/j.compeleceng.2017.09.004>.
12. Mangai, N.M.S., Karthigaikumar, P., Vinod, S.T. et al. FPGA implementation of elephant recognition in infrared images to reduce the computational time. J Ambient Intell Human Comput (2018). <https://doi.org/10.1007/s12652-018-0984-z>
13. C. Babu and D. A. Chandy, "DPCM based compressor for capsule endoscopic videos," 2017 International Conference on Signal Processing and Communication (ICSPC), Coimbatore, 2017, pp. 89-93, doi: 10.1109/CSPC.2017.8305813.
14. D. Shamia and D. A. Chandy, "Analyzing the performance of Viola Jones Face Detector on the LDHF database," 2017 International Conference on Signal Processing and Communication (ICSPC), Coimbatore, 2017, pp. 312-315, doi: 10.1109/CSPC.2017.8305860.
15. Christinal H.A., John R.R., Chandy D.A., Gutiérrez-Naranjo M.A. (2017) Solving the Bin-Packing Problem by Means of Tissue P System with 2-Division. In: Patitz M., Stannett M. (eds) Unconventional Computation and Natural Computation. UCNC 2017.

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16. Chandy, D.A., Christinal, A.H., Theodore, A.J. et al. Neighbourhood search feature selection method for content-based mammogram retrieval. *Med Biol Eng Comput* 55, 493–505 (2017). <https://doi.org/10.1007/s11517-016-1513-x>
17. B. Yohannan and D. A. Chandy, "A novel approach for fusing LIDAR and visual camera images in unstructured environment," 2017 4th International Conference on Advanced Computing and Communication Systems (ICACCS), Coimbatore, 2017, pp. 1-5, doi: 10.1109/ICACCS.2017.8014604.
18. N.M. Siva Mangai; Shilu Tresa Vinod; D. Abraham Chandy. "Recognition of elephants in infrared images using clustering-based image segmentation" *International Journal of Electronic Security and Digital Forensics (IJESDF)*, Vol. 7, No. 3, 2015
19. Chandy, D.A., Johnson, J.S. & Selvan, S.E. Texture feature extraction using gray level statistical matrix for content-based mammogram retrieval. *Multimed Tools Appl* 72, 2011–2024 (2014). <https://doi.org/10.1007/s11042-013-1511-z>
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