Research Profile

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Journal Publications (14) **SCI/SCIE-6** **ESCI-1** **Scopus-4**	Avudaiammal, R., Elaveni, P., Selvan, S, **Vijayarajan R**. Extraction of Buildings in Urban Area for Surface Area Assessment from Satellite Imagery based on Morphological Building Index using SVM Classifier. *J Indian Soc Remote Sens* (Sep 2020). https://doi.org/10.1007/s12524-020-01161-0 (**Springer, IF: 0.997**)
	R Vijayarajan, P Gnanasivam & R Avudaiammal, "Bio-Key-Based AES for Personalised Image Cryptography", *The Computer Journal,* Nov 2019, Vol. 62 (11), pp. 1695-1705 (**IF: 1.077**)
	Gnanasivam P & **Vijayarajan R,** "Gender Classification from Fingerprint Ridge Count and Fingertip Size using Optimal Score Assignment", **Complex and Intelligent Systems,** April 2019, Vol. 5: pp. 343–352. DOI: 10.1007/s40747-019-0099-y. (**Springer, IF: 3. 917**)
	Vijayarajan R & Muttan S, "Adaptive principal component analysis fusion schemes for multifocus and different optic condition images", **International Journal of Image and Data Fusion,** (Taylor & Francis), Vol. 7 (2), March 2016, pp. 189-201, ISSN: 1947-9832 (**Scopus, ESCI**)
	Vijayarajan R & Muttan S, "Spatial Weighted Fuzzy C-means Clustering based Principal Component Averaging Image Fusion", **International Journal of Tomography and Simulation,** Vol.29(3), pp.104-113, July 2016, ISSN: 2319-3336 (**Scopus**)
	Vijayarajan R & Muttan S, "Discrete wavelet transform based principal component averaging fusion for medical images", *International Journal of Electronics and Communications - AEU*, (**Elsevier**), Vol. 69 (6), 2015, pp. 896-902, ISSN: 0219-6913 (**IF: 2.924**) (**SCIE**)
	Vijayarajan R & Muttan S, "Local principal component averaging image fusion", **International Journal of Imaging and Robotics** , Volume 13(2), 2014, pp.94-103(ISSN: 2231-525X) (**Scopus**)
	Vijayarajan R & Muttan S, "Fuzzy C-Means Clustering based Principal component averaging fusion," *International Journal of Fuzzy Systems*, Vol.16 (2), 2014, pp.153-159, ISSN: 1562-2479 (**IF: 1.5**) (**SCIE**)
	Vijayarajan R & Muttan S, "Iterative Block Level Principal Component Averaging Medical Image Fusion", *Optik-International Journal of Light and Electron Optics* (**Elsevier**), Vol. 125(17), 2014, pp. 4751-4757. ISSN: 0030-4026 (**IF: 2.187**) (**SCIE**)
	Sekar M & **Vijayarajan R**, "Power Law Enhancement Based Fuzzy C-Means Retinal Blood Vessel Segmentation", **International Journal of Recent Technology and Engineering,** Vol. 7 (ICETESM), March 2019, pp. 54-58.
	Vijayarajan R & Avudaiammal R, "Multiple MRI Image Fusion using normalized principal components of DWT subbands," **International Journal of Tomography and Simulation,** Vol 32 (2), pp. 92-100, 2018
	Vijayarajan R & Muttan S, "Cross neighbourhood kernel filtering for speckle noise removal in Ultrasound images," International Journal of Recent Technology and Engineering , Volume-1, Issue-2, June 2012, pp. 42-45 ISSN:2277-3878

Vijayarajan R & Muttan S, "Analysis of FCM clustering on pre and post iterative relaxed adaptive center weighted median filter in MRI & CT brain images," Int. Journal of Computer Science Issues, Vol. 9(4), No 3, July 2012, pp. 134-141, ISSN: 1694-0814

Vijayarajan R & Muttan S, "Impact of cross neighbourhood kernel filtering in speckle noise removal and in subsequent fuzzy level set segmentation for ultrasound images," **European Journal of Scientific Research**, Vol. 89, No 4, October 2012, pp.555-561 ISSN 1450-216X **(Scopus, IF: 0.2)**

Book Chapters (4)	K. Kamalanand, **R. Vijayarajan** and S. Nachiappan, "**Book Chapter 4**: Inspection of Dermoscopy Images Using Kapur's Entropy and Watershed Segmentation", Computer Science, Technology and Applications, Nova Science Publishers, ISBN: 978-1-53615-484-9 (On production).

Sangeetha N, Anita X and **Vijayarajan R, "Chapter 11:** Medical Image Watermarking: A Review on Wavelet-Based Methods", Signal and Image Processing Techniques for the Development of Intelligent Healthcare Systems, pp. 203-221, Sep 2020, Springer Nature, https://doi.org/ 10.1007/978-981-15-6141-2_11

Vijayarajan R, Sangeetha N, Karthik R, Kethepalli Mallikarjuna, Chapter 8: Performance Analysis of VGG19 Deep learning network based Brain Image Fusion, In book: Handbook of Research on Deep Learning-Based Image Analysis Under Constrained and Unconstrained Environments, December 2020, IGI Global, DOI: 10.4018/978-1-7998-6690-9

Karthik.R, Nandana B, Mayuri Patil, Chandreyee Basu, **Vijayarajan R**, Chapter 15: Performance Analysis of GAN Architecture for Effective Facial Expression Synthesis, In book: Handbook of Research on Deep Learning-Based Image Analysis Under Constrained and Unconstrained Environments, December 2020, IGI Global, DOI: 10.4018/978-1-7998-6690-9

Conferences (07)	Satish A, Erapu Vara Prasad, Tejasvi R, Swapna P, **Vijayarajan R, "**Image Scrambling through Two Level Arnold Transform", Alliance International Conference on Artificial Intelligence and Machine Learning (AICAAM), April 2019, pp. 329-337.

Rajinikanth V, Suresh Satapathy, Nilanjan Dey and **Vijayarajan R**, "DWT-PCA Image Fusion Technique to Improve Segmentation Accuracy in Brain Tumor Analysis" Lecture notes in Electrical Engineering 471, pp. 453-462, 2018, DOI:10.1007/978-981-10-7329-8_46 **(Scopus)**

Avudaiammal R & **Vijayarajan R**, "Principal Component Averaging based on DWT for Multiple MR Image Fusion", International conference on allied electrical and communication systems, ICAECS'16, 2016, Vignan's University, Guntur.

A. Atchaya, J. P. Aashiha, and **R. Vijayarajan**, "Optimal Image Segmentation of Cancer Cell Images Using Heuristic Algorithms," Advances in Intelligent Systems and Computing 339, pp. 269-278, 2015, DOI 10.1007/978-81-322-2250-7_26 **(Scopus)**

R.Vijayarajan & S. Muttan, "Iterative Relaxed Median filter for impulse noise removal and validation of FCM Clustering using Cluster Error Index in Median Filtered MR Images," Springer(LNCS) - Communications in Computer and Information Science Series, Part I, CCIS 269, 2011, pp. 792–801, 2012.**(Scopus)**

R.Vijayarajan & S. Muttan, "Clustering performance analysis of FCM algorithm on iterative relaxed median filtered medical images," Third International conference on Advances in recent technologies in communication and computing ARTCOM 2011, **IET Digest** , Issue 2, pp.152–157 **(Scopus)**

R.Vijayarajan & S. Muttan, "Influence of Iterative relaxed median filter over FCM clustering," Annual IEEE India conference on Engineering sustainable solutions, INDICON 2011, **IEEE Explore (Scopus)**