



Department of Computer Science and Engineering
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P. Arockia Jansi Rani B.E., M.E., Ph.D.
Associate Professor

Academic Details

Area of Specialization Digital Image Processing
Neural Networks
Data Mining

Research Experience 12

Teaching Experience 22

Ph.D. Guidance On-going : 3
Submitted : 2
Awarded : 13

Programme(s)	Organized	Attended
Workshops	9	17
Seminar	11	14
Conference	2	5

Positions Held

- Member of Syndicate, MSU (July 2015-Mar. 2017)
- Director, MOOCs, MSU (Nov. 2018 - April 2022)
- Member, AQAR Committee
- Placement Coordinator/CSE

Research Details

Research Publications

Category	No. of Publications
Journals	71
Conferences	33
Book, chapters	2
Patents published	3

Citations and Indexing

<u>Citations</u>	
Google scholar	384
Scopus	103
Web of Science	34
IRINS	192
<u>Indexing</u>	
Google Scholar	10
Scopus	6
Web of Science	3
IRINS	7

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List of Significant Publications

Book:

1. Sowmyayani & Arockia Jansi Rani, Towards Wavelet Based Video Codec, DOI: 10.9734/bpi/mono/978-93-5547-305-9, B P International publisher, ISBN 978-93-5547-305-9 (Print) ISBN 978-93-5547-313-4, ISSN: 1380-7501, 2022.

Jouranal Article:

1. Sowmyayani & Arockia Jansi Rani, STHARNet: spatio-temporal human action recognition network in content based video retrieval, Multimedia Tools and Applications, **IF: 2.577**, 2023, Electronic ISSN 1573-7721 Print ISSN 1380-7501, <https://link.springer.com/article/10.1007/s11042-023-14784-5>
2. Sowmyayani & Arockia Jansi Rani, Salient object based visual sentiment analysis by combining deep features and handcrafted features, Multimedia Tools and Applications, **IF: 2.577**, <https://doi.org/10.1007/s11042-022-11982-5>, 2022.
3. Asha Paul, M.; P. Arockia Jansi Rani.; Sheela, J. Evangelin Deva Coral Reef Classification Using Improved WLD Feature Extraction with Convolution Neural Network Classification, Recent Advances in Computer Science and Communications, ISSN (Print): 2666-2558, (Online): 2666-2566, 2021, doi.org/10.2174/2666255813999200511101830, 2021
4. Mohamed Fathimal P & Arockia Jansi Rani P, *Hierarchical Threshold Secret Sharing Scheme for color images*, Multimed Tools Appl (2017) 76: 5489. <https://doi.org/10.1007/s11042-016-4074-y>, **Indexed in SCOPUS**, Web of Sciences, IET Inspec, Google Scholar, ProQuest, ACM Digital Library, CSI, DBLP, JCR; **Springer Publication. IF:2.313**.
5. Mohamed Fathimal, and Arockia Jansirani, New Fool Proof Examination System through Color Visual Cryptography and Signature Authentication, The International Arab Journal of Information Technology, Vol. 16, No. 1, January 2019, Scopus: EID: 2-s2.0-85067830403, Web of Science, SCIE indexed, **IF: 0.654**

List of Publications since 2018

S. No.	Title, Vol., Page No. & Year	Journal	ISSN No.	Whether peer reviewed, Impact Factor, if any
Book / Book Chapter				
1.	Towards Wavelet Based Video Codec, 2022	B P International publisher	ISBN 978-93-5547-305-9 (Print) ISBN 978-93-5547-313-4 (eBook)	DOI: 10.9734/bpi/mono/978-93-5547-305-9; BOOK
2.	Threshold Secret Sharing Scheme for Compartmented Access Structures, Dec. 2019 DOI: 10.4018/978-1-7998-1763-5.ch026	Cryptography: Breakthroughs in Research and Practice (Book)	ISBN13: 9781799817635 EISBN13: 9781799817642	Book Chapter
Articles in Journals				
3.	Network traffic classification based-masked language regression model using CNN, Oct. 2024, 36(22) https://onlinelibrary.wiley.com/doi/abs/10.1002/cpe.8223	Concurrency and Computation: Practice and Experience	Online ISSN:1532-0634 Print ISSN:1532-0626	WoS indexed (SCIE) Wiley
4.	A survey on passive digital video forgery detection techniques, Dec. 2023, 13(6) http://doi.org/10.11591/ijece.v13i6.pp6324-6334	International Journal of Electrical & Computer Engineering	E-ISSN:2088-8708	Scopus indexed (https://www.scopus.com/sourceid/21100373959)
5.	Super pixels transmission map-based object detection using deep neural network in UAV video, 11/2023, 71(8) https://doi.org/10.1080/13682199.2023.2195121	The Imaging Science Journal	ISSN / eISSN: 1368-2199 / 1743-131X	IF: 1.1; Taylor & Francis

6.	Interframe Video Forgery Detection and Localization using Histogram-Oriented Gradients for Surveillance Videos. June, 2023, 22(1) https://infocomp.dcc.ufla.br/index.php/infocomp/article/view/2464	INFOCOMP Journal of Computer Science	ISSN: 1807-4545 (print) e-ISSN: 1982-3363 (online)	-
7.	Content based video retrieval system using two stream convolutional neural network, 7/2023, 82(16), https://link.springer.com/article/10.1007/s11042-023-14784-5	Multimedia Tools and Applications	Electronic ISSN 1573-7721	IF: 3; Springer US
8.	Deep Learning based Artificial Intelligent Systems in Road Traffic Density Estimation and Congestion Classification, 6/2023, 16(24), 6. https://doi.org/10.17485/IJST/v16i24.1660	Indian Journal of Science and Technology	ISSN Print: 0974-6846 Electronic: 0974-5645	Web of Science indexed
9.	STHARNet: spatio-temporal human action recognition network in content based video retrieval, , 2023, https://link.springer.com/article/10.1007/s11042-023-14784-5	Multimedia Tools and Applications	Electronic ISSN 1573-7721 Print ISSN 1380-7501	IF: 2.577 Springer US
10.	Statistical Modeling based Directional Pattern Design (SMDPD) feature extraction for coral reef classification, 193, Article number: 583 (2021)	Environmental Monitoring and Assessment	Electronic ISSN 1573-2959 Print ISSN 0167-6369	2.871 (2020) Five year impact factor, © Springer Nature Switzerland AG
11.	Gradient Based Aura Feature Extraction for Coral Reef Classification, Vol. 114, pp:49–166, April 2020	Wireless Personal Communications	ISSN: 0929-6212 (Print) 1572-834X (Online)	SCIE(WoS) Springer US IF:1.06
12.	An Efficient Shot Boundary Detection Using Data-cube Searching Technique, vol. : 13 issue: 4, October, 2020, Page: [798 - 807], DOI : 10.2174/2213275912666190830141628	Recent Advances in Computer Science and Communications	ISSN 2666-2558 (Print); ISSN 2666-2566 (Online)	Scopus indexed

13.	Comprehensive Study of Parkinson's Disease Prediction, Vol. 10, No. 4, pp. 1762-1775, April 2020.	Journal of Green Engineering	ISSN: 1904-4720 (Print) ISSN: 2245-4586 (Online)	Scopus indexed
14.	High Level Binary Feature Vector for Classification of T1c+ Ring Enhancing Lesions, Vol. 9, Issue 01, January 2020	International Journal of Scientific & Technology Research	ISSN 2277-8616	Scopus indexed
15.	Design and Implementation of Priority Hop Based Energy efficient Cluster Routing Algorithm for WSN Data Aggregation, Vol. 14, No. 11 June 2019, pp. 2698-2703 © Research India Publications.	International Journal of Applied Engineering Research	0973-4562 (Print) 0973-9769 (Online)	1. Scopus indexed 2. UGC Journal (Old list) No. : 64529
16.	A Computational Framework for Detect congestion with Orthogonal Polynomials Model, vol. 6, No. 5, May 2019, pp. 19- 26, DoI: 16.10089.CJMR.2019.V6I5.19.2924	Journal For Multidisciplinary Research (CIKITUSI)	0975-6876 (Online)	1. Scopus indexed 2. UGC Journal (Old list) No.: 40784 3. Thomson Reuters' indexed
17.	New Fool Proof Examination System through Color Visual Cryptography and Signature Authentication, Vol. 16, No. 1, January 2019	The International Arab Journal of Information Technology	1683-3198 (print) 2309-4524 (Online)	1. Scopus: EID: 2-s2.0-85067830403 IF: 0.742 2. Web of Science (SCIE indexed)
18.	Comparison of Continuous Probability Distribution and Robust Mean in WSN Data Aggregation, Vol. 09, Issue 1, January 2019, PP 33-37	International Organization of Scientific Research Journal of Engineering	2278-8719 (Print) 2250-3021 (Online)	Google Scholar indexed, J-Gate, UGC Approved Journal - 2017 (Journal No. - 4814)
19.	Key-Frame Extraction Techniques: A Review, Volume 11 , Issue 1 , Nov. 2018, DOI : 10.2174/2213275911666180719111118	Recent Patents on Computer Science	2213-2759 (Print) 1874-4796 (Online)	Scopus indexed, EI/Compendex, Google Scholar, Genamics, PubsHub, J-Gate, EBSCO
20.	Temporal redundancy reduction in wavelet based video Compression for high definition videos, November 2018, Volume: 09, Issue: 02, DOI:	ICTACT Journal on Image and Video Processing	0976-9099 (Print) 0976-9102 (Online)	Cross ref, J-Gate, EBSCO, IET Inspec, Google Scholar indexed

21.	Data Aggregation in WSN using Robust Mean, Vol.6, No.10, October 2018	International Journal of Research in Advent Technology	2321-9637 (Online)	Google Scholar indexed, ProQuest, UGC Journal (Old list) No.: 48768
22.	Key Frame Extraction in Underwater Coral Reef Videos using Jaccard Similarity Measure	Journal of Analysis and Computation	0973-2861 (online)	Google Scholar indexed, ProQuest, UGC Journal (removed list) No.: 26412
23.	A novel Robust Reversible blind Watermarking in Wavelet-domain using Symlet filters for color images, vol. 8, No. 7, pp. 165-175, www.ijetae.com , July 2018	International Journal of Emerging Technology and Advanced	2250-2459 (online)	Google Scholar indexed, ProQuest
24.	Predictive analytics and retrieval using MRI – A recent retrospective, Vol. 6, No. 5, pp. 878-886, May 2018	International Journal of Computer Sciences and Engineering	2347-2693 (online)	UGC Journal (Old list) No.: 63193 , Thomson Reuters, DBLP, J-Gate, Elsevier, Google scholar indexed
25.	A survey of MRI Enhancement Techniques, Vol. 5, No. 5, pp. 1002-1005, May 2018	Journal of Emerging Technologies and Innovative Research	2349-5162 (online)	UGC Journal (Old list) No.:63975 , DBLP, Google scholar indexed
26.	Traffic Load Computation on Cluttered Road Scenes, Vol.3, Issue 4, April 2018 DOI: 01.1617/vol5/iss4/pid61834	International Journal of Science, Engineering and Management	2456-1304 (Online)	Thomson Reuters and Google Scholar indexed
27.	A Novel Robust Blind Watermarking for Color Images in the Wavelet Domain Achieving High Reversibility, Volume 9, Issue 3, March-2018	International Journal of Scientific & Engineering Research	ISSN: 2229-5518	Thomson Reuters, DBLP, J-Gate, Elsevier, Google scholar indexed
28.	An Efficient Robust Reversible Blind Watermarking For Colour Images using Maximum Wavelet Coefficient in the Selected Blocks of Fixed Size, Vol 2, Issue 12,	International Journal of Science, Engineering and Management	ISSN: 2456-1304	Google Scholar indexed, ProQuest

29.	Human action recognition system using neural networks, Vol. 4, No. 12, December 2017	International Journal of Engineering research in Computer Science	ISSN: 2394-2320	Google Scholar indexed
30.	An efficient joint Encryption and Compression using HoP and Permutation, Vol. 6, No.7, July, 2017, DOI: 10.5281/zenodo.823090	International Journal of Engineering Sciences & Research	ISSN: 2277-9655	Google Scholar indexed (UGC removed list no.; 48486)
31.	Secured Lossy Color Image Compression Using Permutation and Predictions, Jun 2017, Vol. 9 Issue 6, p29-36. 8p	International Journal of Image, Graphics & Signal Processing		EBSCO's databases, Google Scholar indexed
32.	Automatic Segmentation of Ring Enhancing Leisons from T1 C+ and FLAIR MRI images, Vol.3, No. 3, pp. 27-35, May-Jun. 2017	International Journal of Information Technology	2454-5414 (online)	Google Scholar indexed
33.	Improving Efficiency In Image Encryption And Compression Using Permutations & Predictions, Vol.7, Issue 04, May 2017	ICTACT Journal on Image & Video Processing	0976-9099 (Print) 0976-9102 (Online)	Google Scholar indexed
34.	Study on Data Representation and Aggregation in WSN, pp.15-18, vol. 165, No. 11, May 2017	International Journal of Computer Applications	0975-8887	-
35.	Wavelet based Feature Vector for Shot Boundary Detection, 175002 (9 pages), Vol. 17, No.1, Jan. 2017, DOI: 10.1142/S0219467817500024	International Journal of Image and Graphics	Print 0219-4678 Online 1793-6756	1. Web of Science: publons.com/p/1785111/ ✓ Accession Number : WOS:000395473900002
36.	Hierarchical Threshold Secret Sharing Scheme for color images, pp.1-15, Feb. 2017 DOI: 10.1007/s11042-016-4074-y	International Journal of Multimedia Tools and Applications	Print ISSN: 1380-7501 Online ISSN: 1573-7721	1. Scopus: EID: 2-s2.0-84996542537 IF: 1.57 2. Web of Science:
37.	RVM-based human Action Classification through Gabor and Haar Feature extraction, Dec. 2016, Vol.6, No.1/2, pp.54 - 64. DOI: 10.1504 / IJCVR.	International Journal of Computational Vision and Robotics	ISSN. 1752-914x (online), 1752-9131 (print)	Scopus indexed; Peer reviewed Inderscience publication

38.	Shot Boundary Detection using Octagon Square Search Pattern, 1375(4pages), 10(7), July 2016	International Journal of Computer, Electrical, Automation,	-	World Academy of Science, Engineering and Technology
39.	An Efficient Temporal Redundancy Transformation for Wavelet Based Video Compression, July 2016, V 16, No.3 DOI: 10.1142/S0219467816500157	(IJIG) - International Journal of Image and Graphics	Print 0219-4678 Online 1793-6756	Peer reviewed Scopus indexed , World Scientific publication, DBLP Bibliography Server, Google Scholar
40.	Threshold Secret Sharing Scheme for Compartmented Access Structures, July 2016, 10(3), pp.1-9 DOI: 10.4018 /IJISP.2016070101	International Journal of Information Security and Privacy	1930-1650 (print) 1930-1669 (online)	Web of Science (SCIE indexed), Thomson Reuters Indexed, ACM, Digital Library
41.	A New Robust Reversible Blind Watermarking in Wavelet-Domain for Color Images, Apr. 2016. Vol. 16, No. 02, 1650006(16pages), http://dx.doi.org/10.1142/S0219467816500157	International Journal of Image and Graphics (IJIG)	1793-6756 (print) 0219-4678 (online)	Scopus indexed , Peer reviewed, World Scientific Publications
42.	K out of N Secret Sharing Scheme for Multiple Color Images with Steganography and Authentication, Apr. 2016, Vol:16, No:2, pp. 1650010(18 pages), DOI:10.1142/S0219467816500108	International Journal of Image and Graphics	Print ISSN: 0219-4678 Online ISSN: 1793-6756	Scopus indexed , World Scientific Publication
43.	Comparative Analysis of Video Steganography Techniques Vol.5, No. 3, March 2016, pp.: 137-145	International Journal of Innovative Research in Science,	ISSN (Online) : 2319-8753 (Print) : 2347-6710	-
44.	Frame Differencing based segmentation for low bit rate video codec using H.264, Jan.2016, Vol. 6, Nos. 1/2, pp. 41- 53, DOI: 10.1504/IJCVR.2016.073757	International Journal of Computational Vision and Robotics	ISSN. 1752-914x (online), 1752-9131 (print)	Scopus indexed , Peer reviewed Inderscience Publication. Scopus indexed, ACM digital library