Prof. Banshidhar Majhi, Ph.D. (CSE)

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On Lien from

National Institute of Technology Rourkela - 769 008, India
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❑ **Date of Birth:** 14th April, 1963

❑ **Thesis Supervised:**

PDF: 02	**Ongoing: 1**	**Ph.D.: 20**	**Ongoing: 1**
M.Tech.(Res): 08	**M.Tech.: 60**	**MCA: 65**	**B.Tech.: 95**

❑ **Research Publications:**

Journals: 98	Patents Filed: 03	Conferences: 90	
Book Chapters: 07	E-Prints: 05		
Citations: 3088	h-index: 27	i10-index: 92	

❑ **Awards/Scholarships:**

(a) Prestigious Global LEAP Fellowship by MHRD, 2019-20 [Cambridge University, UK]

(b) Samanta Chandra Sekhar Award for outstanding contribution in Engineering and Technology, 2016, Govt. of Odisha

(c) Vidya Sagar Award- 2019, ICCCSN -2019

(d) JC Bose Gold Medal for Best Engg. Paper IETE, 2001

(e) Gold Medal from Orissa Engineering. Congress, 2000

(f) First Class First in M. Tech.(CSE), 1998

(g) National Merit Scholarship in HSC 1980

❑ **Professional Experience:**
Teaching and Research: 30 + years,
Industry: 2+ years

❑ **Book Reviewed:**
Software Engineering, A Practitioner's Approach, By Roger Pressman, Prentice Hall of India, 6th Edition

❑ **Courses Developed:**
Undergraduate: 10
Postgraduate   : 08

❑ **Conferences/Short-term course/ FDP/Workshop conducted**

• **Conferences: 04**   **FDPs: 04**   **Workshops: 07**   **Short Term Courses: 25**

❑ **Short-term Courses attended:**   27 weeks

❑ **Research Interests:**
Image Processing and Computer Vision, Data Compression, Security Protocols, Parallel Computing, Soft Computing, Biometrics

❑ **Membership of Professional Societies: LMCSI – 17034, MIEEE- 80669958, FIE: F-113212-8, FIETE-F146837, LMIUPRAI (L-156)**

❑ **Visiting Faculty Assignments Abroad**

- Visited as a Professor to the Department of Computer Engineering, King Khalid University, Abha, Kingdom of Saudi Arabia (a Govt. of Jordan University) [10/10/2010 to 02/02/2011]

- Visited as an Assistant Professor to the Department of Computer Engineering and Information Technology, Al-Hussein Bin Talal University, Ma'an, Jordan (a Govt. of Jordan University) [07/10/2004 to 26/6/2005]

❑ **Conferences Attended Abroad**

- Presented paper at IEEE/ACM Conference on Distributed Smart Cameras, 2012 (Oct 29- 02 Nov, 2012) at Hong Kong.

- Presented paper at IEEE International Conference on Image Processing, Cairo, Egypt November 7-11, 2009

- Presented paper at International Conference on Image, Signal and Vision Computing (ICISVC 2008), Venice, Italy, October 29-31, 2008

- Presented paper at Int. Conference on Intelligent Computing (ICIS-2005) Kuala Lumpur (Malaysia), December 01-03, 2005.

❑ **Conference/Workshop/Short-term Course Conducted**

- GIAN course on Artificial Intelligence for MR Brain Image Processing, sponsored by MHRD, Govt. of India during October 9- 18, 2017.
- Short term course on Image Processing (10-16 Dec, 2012, 13-18 Dec,2011)
- Staff Development Programme on "Image Processing: Fundamentals and Advances" 15-28 December, 2009
- National Conference on "Soft Computing Techniques for Engineering Applications", 24-26th March, 2006.
- ISTE short-term course on "Advanced AI and its Applications", December 15-22, 1998.
- Two workshops on "Management Information System: A Basic Necessity", for the staff of the Institution in April, 1998 under UK-India Project.
- 15 short term courses under Continuing Engineering Education Program [CEEP] on Unix, C, C++ and advanced database systems

❑ **Award for Theses Supervised**

- INAE Best M. Tech. Thesis award,2007, Pankaj K. Sa, "Development of Impulse Noise Removal Schemes"

- INAE Best M. Tech. Thesis award, 2010, Ms. Hunny Mehrotra, "Iris Identification using Key Point Descriptors and Geometric Hashing".

  She has also received Google Woman India award, 2010 for her contribution in M.Tech. Thesis.

- INAE Best M. Tech. Thesis award, 2011, Mr. Sambit Bakshi, "Development of Robust Iris Localization and Impairment Pruning Schemes"

❑ **Educational Qualifications**

1. Ph.D.(CSE),   2003, REC Rourkela (Sambalpur University)
2. M.Tech.(CSE),   1998, REC Rourkela (Sambalpur University), 79.45%
3. Mater of Computer Applications,   1988, REC Rourkela (Sambalpur University), 68.72
4. B.Sc. (Physics with Distinction),   1984, GM College, Sambalpur, 68.66%
5. I.Sc. (Phy, Chem, Math., Stat),   1982, GM College, Sambalpur, 80.44%
6. HSC, First Class,   1980, MP High School Dhama, 69.50%

❑ Ph.D. Students Supervised (19)

Sl #	Student Name	Year	Title of Thesis
1	Prof. S. Meher (50407003)	2005	Development of some Novel Nonlinear and Adaptive Digital Image Filters for efficient noise Suppression
2	Prof. P. K. Sa (50606002)	2010	Restoration Algorithm for Blurred and noisy Images
3	Jayaprakash Kar 22-Comp.Sc.06-07	2011 UU	Algorithms for Cryptographic Protocols using Elliptic Curve Cryptography
4	Ratnakar Dash (507CS002)	2012	Parameters Estimation for Image Restoration
5	Sujata Mohanty (508CS405)	2013	On the Design of Digital Signature Protocols and their Variants
6	Suvendu Rup (508CS103)	2013	Intra-Key-Frame Coding and Side Information Generation Schemes in Distributed Video Coding
7	Hunny Mehrotra (510CS101)	2013	On the Performance improvement on Iris Biometrics
8	Punyaban Patel (*347/2010/ CSE*)	2014	Development of Noise Removal Algorithms for Images
9	Tushar Kanti Mishra (511CS107)	2015	Development of Features for Recognition of Handwritten Odia Characters
10	Subasish Mohapatra (511CS804)	2016	On Solving some Issues in Cloud Computing
11	Jagadeesh Kakarla (512CS1010)	2016	Development of Energy and Delay Efficient Protocols for WSAN
12	Shradhananda Beura (512CS1008)	2016	Development of Features and Feature Reduction Techniques for Mammogram Classification
13	Soubhagya S Barpanda (512CS605)	2016	Development of Multi-rate filter based Region Features for Iris Identification
14	Ramesh Kumar Mohapatra (511CS402)	2016	On Development of handwritten character recognition for Odia language
15	Manoj R Mishra	2016 KIIT	A Novel Construction of One-pass Key Establishment Protocol for Wireless Sensor Networks
16	Deepak R Nayak	2019 **Co-Guide**	Towards Designing Improved Pathological Brain Detection System using Machine Learning Approaches
17	Sonali Mishra	2020	Analysis of Hematopoietic cells for Leukemia Detection and Classification
18	Deepasikha Mishra (512CS606	2020	Development of Learning based Techniques for Single Image Super-Resolution
19	D Paul Chowdhury (516CS1003)	**Submitted Co-Guide**	Development of Ear Biometric Systems with Forensic Validation

❑ M. Tech.(Research) Students Supervised (08)

Sl #	Student name	Year	Title of Thesis
1	Prof. P.K. Sa	2006	Development of impulse noise removal schemes
2	S Mohapatra	2008	Development of impulsive noise detection schemes for selective filtering in images
3	Hunny Mehrotra	2010	Iris identification using key point descriptors and geometric hashing
4	Anukul Ch. Panda	2011	Parallel algorithms for Iris Biometrics
5	Sunita Kumari	2013	Comparative analysis of ICA based gender classification schemes
6	Ravi Kumar	2014	Comparative Analysis of Hashing Schemes for Iris Identification using Local Features

7	Shree Prakash	2014	Numeral Recognition using Gesture
8	Satybrata Swain	2015	Level 3 Feature based iris identification

❑ Sponsored Projects

Srl#	Title of the project	Sponsoring Agency	Sanctioned amount(Lacs)	Duration
1	Development of novel deep learning, visual servoing approaches for improved detection of anti-tank mines using thermal vision assisted mobile robot	TARE-DST	18.3	3 years 2018-21
2	Development of Local features and feature reduction schemes for Iris Biometrics	DIT, Govt. of India	22.56	2 years 2012-14
3	Set down study of projectile through in flight imaging,	PXE, Chandipur	9.91	2 years 2012-14
4	Restoration and Deblurring of Images using Blind Deconvolution Techniques,)	ISRO (VSSC, Trivandrum)	7.22	2 years 2007-09
5	Soft Computing R &D Lab Development	MHRD, GOI	8.00	3 years 2002-05
6	Development of novel deep learning, visual servoing approaches for improved detection of anti-tank mines using thermal vision assisted mobile robot	TARE-DST	18.3	3 years 2018-21

❑ List of previous Employments at NIT Rourkela

Position Held	Pay Scale	From	To
Professor (HAG Scale)	67000 -79000	15-Feb-2014	Continuing
Professor	37400 – 67000	01-Jul-2006	14-Feb-2014
Associate Professor	37400 – 67000	01-Jan-2006	30-Jun-2006
Assistant Professor/Reader	12000 – 37000	01-Sep-1998	31-Dec-2005
Lecturer	8000 – 13500	03-Sep-1991	31-Aug-1998

❑ Administrative Experiences

Position Held	Duration
Director, IIITDM Kancheepuram, Chennai	26-Jul-2017 – Continuing
Mentor Director, IIITDM Kurnool, AP	26-Jul-2017 – 28-Feb-2019
Dean(Academic), NITR	01-Jul-2014 – 30-Jun-2017 (3 years)
Chairman, Automation Cell, NITR	01-Jul-2004 – 30-Jun-2017 (13 years)
Professor-in-Charge Examinations, NITR	01-Jul-2011 – 30-Jun-2014 (3 years)
Member of BOG, NITR	April,2016 – March,2018
Coordinator of Centre of Excellence, NITR	1. Centre of Data Analytics and Decision Sciences 2. Centre of Computer Vision and Pattern Recognition
Member of various institute committees	1. Institute Ranking and Accreditation 2. DFAC and IFAC
National Accreditation Committee	NBA, AICTE, NAAC
Head of Dept.(CSE)	01-Jul-2007 – 30-Jun-2010 (3 years)
Warden of Hall	01-Jul-2006 – 30-Jun-2007 (1 year)

Research Publications

❑ Patents

1. Pankaj K. Sa, Kalyan Hati, Banshidhar Majhi, "System and method for detecting objects in videos acquired with static camera", Patents filed. 1217/KOL/2013, 28-Oct-2013

2. Pankaj K. Sa, Rahul Raman, Banshidhar Majhi, "Position and time localization of occlusion between two objects using a static camera", Patents filed. 1218/KOL/2013, 28-Oct-2013

3. Pankaj K. Sa, Ansuman Mohapatra, Banshidhar Majhi, "Systems and Methods for generating Synopsis of Multi-View Videos", Patents filed. 201731028957, 16-Aug-2017.

❑ Journals

2016 - 2021

1. D. R. Nayak, D. Das, B. Majhi, S. V. Bhandary, U. R. Acharya, "ECNet: An Evolutionary Convolutional Network for Automated Glaucoma Detection using Fundus Images", Biomedical Signal Processing and Control, (**Elsevier)**, 2021. (Accepted) (IF: 3.137)

2. P. P. Sarangi, D. R. Nayak, M. Panda, B. Majhi, "A Feature-Level Fusion based Improved Multimodal Biometric Recognition System using Ear and Profile Face", Journal of Ambient Intelligence and Humanized Computing, (**Springer**), 2021 (Accepted) (IF: 4.594).

3. Dibyasundar Das, Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, "MJCN: Multi-Objective Jaya Convolutional Network for Handwritten Optical Character Recognition", Multimedia Tools and Applications, Springer, 2020 (In press). (IF: 2.313)

4. Subhankar Ghatak, Suvendu Rup, Banshidhar Majhi, and M.N.S. Swamy, "HSAJAYA: An Improved Optimization Scheme for Consumer Surveillance Video Synopsis Generation", **IEEE** Transactions on Consumer Electronics, pp. 144 – 152, Volume: 66, Issue: 2, May 2020, DOI**:** 10.1109/TCE.2020.2981829

5. Dibyasundar Das, Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, Y. Zhang, "H-WordNet: A Holistic Convolutional Neural Network Approach for Handwritten Word Recognition", **IET** Image Processing, Pub Date : 2020-07-27 , DOI: 10.1049/iet-ipr.2019.1398, (**IF 1.995**)

6. Debendra Kumar Muduli, Banshidhar Majhi, Ratnakar Dash, "Automated Breast Cancer Detection in Digital Mammograms: A Moth Flame Optimization based ELM Approach" Biomedical Signal Processing and Control (**Elsevier**) Pub Date : 2020-03-04 , DOI: 10.1016/j.bspc.2020.101912, (**IF 3.137**)

7. D. R. Nayak, R. Dash, B. Majhi, R. B. Pachori, Y. Zhang, "A Deep Stacked Random Vector Functional Link Network Autoencoder for Diagnosis of Brain Abnormalities and Breast Cancer", Biomedical Signal Processing & Control, Elsevier, vol. 58, 2020. DOI: https://doi.org/10.1016/j.bspc.2020.101860

8. Susmita Mandal, Sujata Mohanty, Banshidhar Majhi, "CL-AGKA: certificateless authenticated group key agreement protocol for mobile networks", Journal of Wireless Networks, No. 26(2020): pp. 3011-3031, DOI: https://doi.org/10.1007/s11276-020-02252-z, (Springer)

9. Shreeya Swagatika Sahoo, Sujata Mohanty, and Banshidhar Majhi, "Improved Biometric-based Mutual Authentication and Key Agreement Scheme using ECC", March 2020, Wireless Personal Communications 111(8), DOI: 10.1007/s11277-019-06897-8, (**Springer**), 2019.

10. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, Yudong Zhang, "A Hybrid Regularized Extreme Learning Machine for Automated Detection of Pathological Brain," Journal of Biocybernetics and Biomedical Engineering, (Elsevier), September 2019, Vol. 39(3), DOI: 10.1016/j.bbe.2019.08.005, (**IF: 2.159**)

11. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, U. Rajendra Acharya, "Application of Fast Curvelet Tsallis Entropy and Kernel Random Vector Functional Link Network for Automated Detection of Multiclass Brain Abnormalities," Journal of Computerized Medical Imaging and Graphics, Volume 77, October 2019, 101656 DOI: https://doi.org/10.1016/j.compmedimag.2019.101656, (**Elsevier**), (IF: 3.298)

12. Figlu Mohanty, Suvendu Rup, Bodhisattava Dash, Banshidhar Majhi, M.N.S Swamy, "Digital mammogram classification using 2D-BDWT and GLCM features with FOA-based feature selection approach", Journal of Neural Computing and Applications, Volume 32, pp. 7029–7043 (2020), DOI: https://doi.org/10.1007/s00521-019-04186-w **(Springer)**. **(IF: 4.215)**

13. Subhankar Ghatak, Suvendu Rup, Banshidhar Majhi, M. N. S. Swamy, "An improved surveillance video synopsis framework: a HSATLBO optimization approach", Multimedia Tools and Applications **(Springer)** 2019. DOI: https://doi.org/10.1007/s11042-019-7389-7 **(IF: 1.541)**

14. Asutosh KAR, Trideba PADHI, Banshidhar MAJHI, M.N.S. SWAMY, "Analyzing the impact of system dimension on the performance of a variable-tap-length adaptive algorithm", Journal for Applied Acoustics, Volume 150, July 2019, Pages 207-215, https://doi.org/10.1016/j.apacoust.2019.02.015, **(Elsevier), (IF: 1.721)**.

15. Ravi Vanamadi, Asutosh Kar, Ankita Anand, Banshidhar Majhi, M.N.S. Swamy, "Analysing the Effects of Pseudo-Optimum Tap-length for an MSF-based Acoustic Echo Canceller", Journal for Applied Acoustics Volume 150, July 2019, Pages 198-206, , https://doi.org/10.1016/j.apacoust.2019.02.014, **(Elsevier)**, **(IF: 1.721)**.

16. Dibyasundar Das, Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, "An Empirical Evaluation of Extreme Learning Machine: Application to Handwritten Character Recognition", Multimedia Tools and Applications 78(10):1-29 · February 2019, DOI: 10.1007/s11042-019-7330-0 **(Springer) 2019. DOI: 10.1007/s11042-019-7330-0 (IF: 1.541)**

17. Deepak Ranjan Nayak, Dibyasundar Das, Ratnakar Dash, Snehashis Majhi, Banshidhar Majhi, "Deep extreme learning machine with leaky rectified linear unit for multiclass classification of pathological brain images", Multimedia Tools and Applications **(Springer)** 2019. **DOI: 10.1007/s11042-019-7233-0 (IF: 1.541)**

18. Sonali Mishra, Banshidhar Majhi, Pankaj Kumar Sa, "Texture feature based classification on microscopic blood smear for acute lymphoblastic leukemia detection", Biomedical Signal Processing and Control **(Elsevier),** vol. 47, pp. 303-311, 2019. **DOI: 10.1016/j.bspc.2018.08.012 (IF: 2.783)**

19. Aparajita Nanda, Pankaj Kumar Sa, Dushyant Singh Chauhan, and Banshidhar Majhi, "A person re-identification framework by inlier-set group modeling for video surveillance", Journal of Ambient Intelligence and Humanized Computing (Springer), vol. 10, issue 1, pp.13-25, 2019. DOI: 10.1007/s12652-017-0580-7 (IF: 1.423)

20. Deepak Ranjan Nayak, Ratnakar Dash, X. Chang, Banshidhar Majhi, Sambit Bakshi, "Automated Diagnosis of Pathological Brain Using Fast Curvelet Entropy Features", IEEE Transactions on Sustainable Computing, (IEEE) 2018. DOI: 10.1109/TSUSC.2018.2883822

21. Debbrota Paul Chowdhury, Sambit Bakshi, Pankaj Kumar Sa, Banshidhar Majhi, "Wavelet Energy Feature Based Source Camera Identification for Ear Biometric Images", Pattern Recognition Letters **(Elsevier)**, 2018. DOI: 10.1016/j.patrec.2018.10.009 (IF: 1.952)

22. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, Shuihua Wang, "Combining extreme learning machine with modified sine cosine algorithm for detection of pathological brain", Computers and Electrical Engineering **(Elsevier)**, 2018. (IF: 1.747) DOI: 10.1016/j.compeleceng.2018.04.009 (IF: 1.747)

23. Bodhisattva Dash, Suvendu Rup, Anjali Mohapatra, Banshidhar Majhi, M. N. S Swamy, "Decoder side Wyner-Ziv frame estimation using Chebyshev polynomial-based FLANN technique for distributed video coding", Multidimensional Systems and Signal Processing, (Springer), 2018. DOI: 10.1007/s11045-018-0594-0 (IF: 2.088)

24. Rahul Raman, Larbi Boubchir, Pankaj Kumar Sa, Banshidhar Majhi, and Sambit Bakshi, "Beyond Estimating Discrete Directions of Walk: A Fuzzy Approach", Machine Vision and Applications (Springer), Volume 30, Issue 5, pp 901–917, July 2019, DOI: 10.1007/s00138-018-0939-6 (IF: 1.306)

25. Shreeya Swagatika Sahoo, Sujata Mohanty, and Banshidhar Majhi, "An Improved and Secure Two-factor Dynamic ID Based Authenticated Key Agreement Scheme for Multiserver Environment", Wireless Personal Communication, (Springer), 2018. DOI: 10.1007/s11277-018-5764-8 (IF: 1.200)

26. Soubhagya Sankar Barpanda, Banshidhar Majhi, Panjak Kumar Sa, Arun Kumar Sangaiah, Sambit Bakshi, "Iris feature extraction through wavelet mel-frequency cepstrum coefficients", Optics & Laser Technology (**(Elsevier)**, vol. 110, pp. 13-23, 2018. DOI: 10.1016/j.optlastec.2018.03.002 (IF: 2.503)

27. Bodhisattva Dash, Suvendu Rup, Anjali Mohapatra, Banshidhar Majhi, M.N.S Swamy, "Multi-resolution extreme learning machine-based side information estimation in distributed video coding", Multimedia Tools and Applications (Springer), 2018. DOI: 10.1007/s11042-018-5921-9 (IF: 1.541)

28. Figlu Mohanty, Suvendu Rup, Bodhisattava Dash, Banshidhar Majhi, M.N.S Swamy, "A computer-aided diagnosis system using Tchebichef features and improved grey wolf optimized extreme learning machine", Applied Intelligence (Springer), Vol.49, Issue 3, pp 983-1001, March 2019. DOI: 10.1007/s10489-018-1294-z (IF: 1.983)

29. Figlu Mohanty, Suvendu Rup, Bodhisattava Dash, Banshidhar Majhi, MNS Swamy, "Mammogram classification using contourlet features with forest optimization-based feature selection approach", Multimedia Tools and Applications (Springer), 2018. Vol. 78, No.10, 12805-12834, DOI: 10.1007/s11042-018-5804-0 (IF: 1.541)

30. Soubhagya Sankar Barpanda, Pankaj Kumar Sa, Oge Marques, Banshidhar Majhi, Sambit Bakshi, "Iris recognition with tunable filter bank based feature", Multimedia Tools and Applications (Springer), volume 77, issue 6, pp 7637–7674, 2018. DOI: 10.1007/s11042-017-4668-z (IF: 1.541).

31. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, "Discrete ripplet-II transform and modified PSO based improved evolutionary extreme learning machine for pathological brain detection", Neurocomputing (Elsevier), vol 282, pp- 232-247, 2018. DOI: 10.1016/j.neucom.2017.12.030 (IF: 3.241)

32. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, Vijendra Prasad, "Automated pathological brain detection system: A fast discrete curvelet transform and probabilistic neural network based approach", Expert Systems with Applications (**Elsevier**), pp. 152-164, 88, 2017. DOI: 10.1016/j.eswa.2017.06.038 (IF: 3.768)

33. Anurag Satpathy, Sourav Kanti Addya, Ashok Kumar Turuk, Banshidhar Majhi, Gadadhar Sahoo, "Crow search based virtual machine placement strategy in cloud data centers with live migration", Journal of Computers and Electrical Engineering, (Elsevier), 2017. DOI: 10.1016/j.compeleceng.2017.12.032 (IF: 1.747)

34. Susmita Mandal, Sujata Mohanty, and Banshidhar Majhi, "Cryptanalysis and Enhancement of an Anonymous Self-Certified Key Exchange Protocol", Wireless Personal Communications (Springer), pp. 1-29, 2017. DOI: 10.1007/s11277-017-5156-5. (IF: 0.951)

35. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, "An improved pathological brain detection system based on two-dimensional PCA and evolutionary extreme learning machine", Journal of Medical Systems (Springer), 2017. DOI: 10.1007/s10916-017-0867-4 (IF: 2.098)

36. Rahul Raman, Pankaj Kumar Sa, Sambit Bakshi, Banshidhar Majhi, "Kinesiology-inspired estimation of pedestrian walk direction for smart surveillance", Future Generation Computer Systems (Elsevier), 2017. DOI: 10.1016/j.future.2017.10.033 (IF: 4.639)

37. Deepasikha Mishra, Banshidhar. Majhi, Sambit Bakshi, A.K. Sangaiah, and Pankaj K. Sa, "Single Image Super Resolution for Texture Images through Neighbor Embedding", Multimedia Tools and Applications (Springer), 2017. DOI: 10.1007/s11042-017-5367-5 (IF: 1.541)

38. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, "Development of pathological brain detection system using Jaya optimized improved extreme learning machine and orthogonal ripplet-II transform", Multimedia Tools and Applications (Springer), 2017. DOI: 10.1007/s11042-017-5281-x (IF: 1.541)

39. Aparajita Nanda, Pankaj K. Sa, Dushyant Singh Chauhan, Banshidhar Majhi, "A person re-identification framework by inlier-set group modeling for video surveillance" Journal of Ambient Intelligence and Humanized Computing (Springer), pp. 1-13, 2017. DOI: 10.1007/s12652-017-0580-7 (IF: 1.423)

40. Bodhisattva Dash, Suvendu Rup, Anjali Mohapatra, Banshidhar Majhi, M.N.S Swamy, "Decoder driven side information generation using ensemble of MLP networks for distributed video coding", Multimedia Tools and Applications (Springer), 2017. DOI:10.1007/s11042-017-5103-1 (IF: 1.541)

41. Sambit Bakshi, Pankaj K. Sa, H. Wang, Soubhagya S. Barpanda, and Banshidhar Majhi, "Fast periocular authentication in handheld devices with reduced phase intensive local pattern," Multimedia Tools and Applications, (Springer), pp. 1-29, 2017. DOI: 10.1007/s11042-017-4965-6 (IF: 1.541)

42. Sonali Mishra, Banshidhar Majhi, Pankaj Kumar Sa, Lokesh Sharma, "Gray level co-occurrence matrix and random forest based acute lymphoblastic leukemia detection", Biomedical Signal Processing and Control (Elsevier), vol.33, pp. 272-280, 2017. DOI: 10.1016/j.bspc.2016.11.021 (IF: 2.783)

43. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, "Pathological brain detection using curvelet features and least squares SVM", Multimedia Tools and Applications (Springer), pp. 1-24, 2016. DOI: 10.1007/s11042-016-4171-y (IF: 1.541)

44. Susmita Mandal, Sujata Mohanty, Banshidhar Majhi, "Design of electronic payment system based on authenticated key exchange", Electronic Commerce Research (Springer), pp. 1-30, 2016. DOI: 10.1007/s10660-016-9246-3 (IF: 1.489)

45. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, "Stationary wavelet transform and AdaBoost with SVM based pathological brain detection in MRI scanning", CNS & Neurological Disorders Drug Targets (Bentham Science Publishers), vol. 16, no. 2, pp. 137-149, 2016. DOI: 10.2174/1871527315666161024142036 (IF: 2.084)

46. Suman Kumar Choudhury, Pankaj Kumar Sa, Banshidhar Majhi, and Sambit Bakshi, "An evaluation of background subtraction for object detection vis-a-vis mitigating challenging scenarios", IEEE Access, (IEEE), 4, pp. 6133-6150, 2016. DOI:10.1109/ACCESS.2016.2608847 (IF: 3.557)

47. Rahul Raman, Pankaj Kumar Sa, Sambit Bakshi, and Banshidhar Majhi, "Direction Estimation for Pedestrian Monitoring System in Smart Cities: An HMM based Approach", IEEE Access, (IEEE), 4, pp. 5788-5808, 2016. DOI:10.1109/ACCESS.2016.2608844 (IF: 3.557)

48. Deepak R Nayak, Ratnakar Dash, Banshidhar Majhi, Jahangir Mohammed, "Non-linear cellular automata based edge detector for optical character images", Simulation: Transactions of the Society for Modeling and Simulation International (SAGE publication), vol. 92, issue 9, pp. 849-859, 2016. DOI: 10.1177/0037549716665156 (IF: 0.940)

49. Deepasikha Mishra, Banshidhar Majhi, Pankaj K Sa, and Ratnakar Dash, "Development of Robust Neighbor Embedding based Super-Resolution Scheme", Neurocomputing (Elsevier), vol. 202, pp. 49–66, 2016. DOI: http://dx.doi.org/10.1016/j.neucom.2016.04.013 (IF: 3.317)

50. Jagadeesh Kakarla, Banshidhar Majhi, and Ramesh Babu Battula, "A Delay and Energy Aware Reliable Coordination Mechanism for WSAN", Journal of Communication Systems (Wiley), 2016. DOI: 10.1002/dac.3121 (IF: 1.717)

51. Ansuman Mahapatra, Pankaj K. Sa, Banshidhar Majhi, and Sudarshan Padhy, "MVS: A Multi-view Video Synopsis Framework", Signal Processing: Image Communication (Elsevier), vol. 42, pp. 31–44, 2016. DOI: 10.1016/j.image.2016.01.002 (IF: 2.073)

52. Deepak Ranjan Nayak, Ratnakar Dash, Banshidhar Majhi, "Brain MR image classification using two-dimensional discrete wavelet transform and AdaBoost with Random Forests with manuscript number", Neurocomputing (Elsevier), vol. 177, pp. 188–197, 2016. DOI: 10.1016/j.neucom.2015.11.034 (IF: 3.241)

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