

CURRICULUM VITAE

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EDUCATION

Year	Institute	Degree	Major
1985-1989	N.I.T. Rourkela	B.Sc. Engineering	Electrical Engineering
1991-1993	N.I.T. Rourkela	M. Engineering	Electronics System & Communication
2000-2006	N.I.T. Rourkela	Ph.D.	Electrical Engineering (Image Processing)

PRINCIPAL POSITIONS HELD

1990-1996	Lecturer, Department of Electrical Engineering, N.I.T. Rourkela.
1996-2004	Lecturer (Senior), Department of Electrical Engineering, N.I.T. Rourkela.
2004-2005	Assistant Professor, Department of Electrical Engineering, N.I.T. Rourkela.
2006-2017	Associate Professor, Department of Electrical Engineering, N.I.T. Rourkela.
2018-present	Professor, Department of Electrical Engineering, N.I.T. Rourkela.

HONORS AND AWARDS

1983	Awarded Gold medal for best student in class X board examination in city level.
1983	Awarded Merit Scholarship in class X
1985	State Joint Entrance Examination Rank 53.
1989	Honors Graduate – Electrical Engineering from N.I.T. Rourkela.
1989	Awarded Gold Medal for Best All-Rounder, N.I.T. Rourkela.
1993	Honors in Postgraduate, Electronics System & Communication, N.I.T. Rourkela.

MAJOR RESEARCH FOCUS

Digital Signal/Image/Video Processing, Computer Vision, Biomedical Signal and Image Processing, Stochastic Processes, Embedded Systems.

Membership in Professional Organizations

- Senior Member of IEEE. (membership no. 80661219)
- Fellow of Institution of Electronics and Telecom Engineers, India. (F-183805)
- Fellow of The Institution of Engineers, India.(F-118095-5)
- Life Member of Indian Society of Technical Education.(M20465)

DEPARTMENTAL SERVICE

2006	Coordinator, short-term course on “ Advanced Signal Processing & Communication Technologies ” during 18-22 December.
2008	Coordinator of AICTE-MHRD sponsored short-term course on “ Advanced Control and Signal Processing Techniques ” during 29 th Oct-11 th Nov.
2006-2013	In charge of departmental Library
2006-2014	Departmental representative of the Institute Central Library.
2006-2009	Professor Incharge, Embedded System & Real-Time Lab. Developed UG and PG laboratory with TEQIP grant.
2007-present	Professor Incharge, Image Processing & Computer Vision Lab. Developed PG laboratory with TEQIP grant.
2007-2012	Member of Department Purchase Committee.
2013-14	Member of Department Academic Committee
2014-present	Member of Department Research Committee, Department Academic Program Oversight Committee
-----	Development of Undergraduate and Postgraduate Courses.
2016	Coordinator, short-term course on “ Advanced Image Processing Solutions for Emerging Challenges in Medical Applications ” (AIPSECMA 2016) 25-26 September. (CoE- OTER sponsored)
2017	Coordinator, short-term course on “ Recent Trends in Medical Signal and Image Processing ” (RTMSIP 2017), 25-26 March. (CoE-OTER sponsored)
2019	Conducted TEQIP-III sponsored one-day Awareness Program on “ Gender Equality at Workplace ” on 20 th August 2019 on behalf of ICC, NIT Rourkela

INSTITUTE AND CAMPUS SERVICE

1990-93	Secretary, Saswat Sangitalaya, Music School of N.I.T. Campus, Rourkela.
1996-98	Assistant Warden, Ladies Hall of Residence, NIT Rourkela.
2005-07	Member of Institute Electrical Maintenance Committee of NIT Rourkela.
2006-07	Member of Institute Library Purchase Committee.
2006-09	Member of Institute write-off and disposal Committee.
2007-08	Chairman, Institute Library Purchase Committee.
2007-17	Organizing Committee Member, Institute Convocation.
2007-09	Selection Committee Member of Technical Assistants & Mechanics.
2013-14	Selection Committee Member of Technical Assistants.
2009-12	Vice President, Film & Music Society, Student Activity Centre, NIT Rourkela.
2011-13	Faculty Advisor, Kaleidoscope Photographic club, Student Activity Centre.
2012-15	Member, Committee against Sexual Harassment, NIT Rourkela.
2012-15	Warden, KMS Hall of Residence, NIT Rourkela.
2015-19	Member, Institute Hindi Cell
2017-till date	Member, Institute Counseling Services
2018-19	Associate Dean (Faculty Welfare)
2018-till date	Chairperson, Internal Complaints Committee
2019-till date	Head, Department of Electrical Engineering

TEACHING AND RESEARCH MENTORING

- **Undergraduate Courses (Course teacher):** Embedded Systems, Signals & Systems, Network Theory, Digital Signal Processing, Microprocessor & Microcontroller, Data Communication & Networks, Analog Electronics, Digital Electronics, Digital Communication, Computer Organization & Architecture, Computer Programming in C, Electrical Machines, Network Theory, Basic Electrical Engineering, Electrical Measurement.
- **Postgraduate Courses (Course teacher):** Digital Image Processing, Computer Vision, Adaptive Signal Processing, Information Theory & Coding, Communication Systems, Computer Communication & Networks.
- Supervised 7 Ph.D., 3 M. Tech. (Research) and 45 Master's research theses.
- Presently supervising 3 nos. of Doctoral research scholars
- Guided 33 nos. of undergraduate final year projects.
- Published 1 book and 5 book chapters
- Published 98 nos. of research papers in journals and conference proceedings.
- Faculty Adviser of undergraduate & postgraduate students.
- Mentored a student group (UG) for developing a robotic product "Fire Fighting Robot" under e-Yantra project, sponsored by MHRD through the National Mission on Education through ICT (NMEICT), IIT Bombay.
- Mentored a student group (UG) for "Designing & developing a prototype product for automated monitoring and control of agricultural system" under Texas Instruments Innovation Challenge India Design Contest 2015.

Sponsored Research Project:

1. "Design and Development of Registration & Super Resolution Reconstruction Techniques for Remotely Sensed Images", ISRO, 2016-2019.
2. "Real time Signal and Image Processing using soft computing approach", MHRD, Govt. of India, 2004-2007. (PI: Prof. P.K.Nanda)

National and Internal collaborations:

- Joint collaboration with reputed hospitals of Odisha which includes SCB Medical College, Cuttack and IGH, Rourkela for clinical data collection and research.
- Signed a MoU for the development of medical image processing system for automated Acute Lymphoblastic Leukemia (ALL) screening in 2012.
- Member of Centre for "Computer Vision & Pattern Recognition", NIT Rourkela.

- Member of Centre for “Industrial Electronics & Robotics”, NIT Rourkela.

SERVICE TO PROFESSIONAL PUBLICATIONS

Published 88 nos. of research papers in national /international referred journals and conference proceedings.

Reviewer of International Journals, i.e. IEEE Transaction on Intelligent Transport Systems, IET Image Processing, Computers in Biology and Medicines (Elsevier), Systems and Information Sciences (Elsevier), Mathematical Problems in Engineering, Arabian Journal in Science & Engineering (Springer), Computer Journal (Oxford University Press), Journals of Hindwai publications, Egyptian Journal of Remote Sensing & Space Sciences etc.

Program Committee Member of International Conferences, i.e. Pattern Recognition & Machine Intelligence, Technical committee member of NCVPRIPG 2016/ 2017, TENCON 2016/2017 etc.

INTERNATIONAL VISITS/PRESENTATIONS

- 2006 Visited the Biomedical Engineering Research Centre of George Washington University, Washington DC, USA and presented an invited talk on “Image segmentation Using Tabu Search Based Hybrid Algorithm and MRF Model”.
- 2009 Presented a research paper on “Integration of FCM, PCA and Neural Networks for classification of ECG Arrhythmias,” in international conference on World Congress on Engineering (WCE-2009) at Imperial College, London, UK.
- 2011 Invited as session chair and presented 2 research papers on “A Rough Set Approach to Blood Microscopic Image Segmentation,” and “Feature Based Segmentation of Colour Textured Images using GLCM and Markov Random Field Model,” in International Conference on Computer Vision & Image Processing (ICCVIP 2011) at Paris.
- 2014 Visited University of South Carolina, USA and presented an invited talk on “Super resolution based image reconstruction”. Visited Georgia State University and Georgia Institute of Technology at Atlanta, USA.
- 2015 Presented a research paper on “Sparse Representation based Image Super Resolution Reconstruction” in IEEE TENCON-2015 at Macau, China.
- 2017 Presented a research paper on “Network based control of 2 DOF serial Flexible Link Manipulator” in IEEE TENCON-2017 at Penang, Malaysia.

Short-term Courses and Trainings Attended

- Workshop for Faculty-Mentors on “Induction Programme for New Students”, 04-06 Sep 2017, organised by TEQIP-III, Govt. Engg. College, Raipur.
- Training Programme on “Stress Management at Workplace for Working Women Executives”, 16-20 Jan, 2017, Goa organized by National Productivity Council, New Delhi.
- Winter School on “Soft Computing Tools, Simulation and Applications (WSSCTSA), 10-14 Jan, 2006, Center for Soft Computing Research, ISI Kolkata.
- Completed 135 hours course on “Computer Network and Internet Applications” conducted under El Net-3L Distance Mode of Education, Continuing Education Programme, IIT Kharagpur in 2000.
- ISTE Summer School on “Robust Control”, 13th-26th May 1991, College of Engineering, Anna University, Chennai.
- ISTE Winter School on “Communications, Signal Processing and Networking”, Jan 1994, IIT Kharagpur.
- “Computation Preparedness and Management of Natural Disasters”, 30th May – 10th June 1994, CET, OUAT, Bhubaneswar.
- Personal, Multimedia and Broadband Communications and Networks, 19th – 30th June 1995, IIT Kharagpur.
- Reactive Power Control Problems & Management in Power and Process Industries, 18th – 30th March 1996, REC Rourkela.
- ADAMS Completion and Cocompletion, 18th – 31st Dec 1999, REC Rourkela.
- Fault Diagnosis through Condition Monitoring, 18th – 29th Dec 2000, REC Rourkela.

M.Tech. (Research) Supervision

Sl. No.	Degree	Name of student	Title of project	Year
1.	M.Tech.(Res)	Smita Pradhan	Unsupervised Brain MRI Segmentation using HMRF Model (http://ethesis.nitrkl.ac.in/2870/)	Awarded
2.	M.Tech.(Res)	Mridula. J.	Feature Based Segmentation of Colour Textured Images using Markov Random Field Model http://ethesis.nitrkl.ac.in/3017/	Awarded
3.	M.Tech.(Res)	Ojaswini Mishra	3D Reconstruction of Human Bone model from 2D X-ray Images	Awarded

Ph.D. Supervision

Sl. No.	Degree	Name of student	Title of project	Remarks
1	Ph.D.	Subrajeet Mohapatra	Hematological Image Analysis for Acute Lymphoblastic Leukemia Detection and Classification.	Awarded
2	Ph.D.	Smita Pradhan	Development of Efficient Intensity based Registration Techniques for Multi-modal Brain Images	Awarded
3	Ph.D.	Prajna Paramita Das	Development of Efficient Methods for Visual Object Tracking	Awarded
4.	Ph.D.	Yogananda Pattnaik (QIP Scholar)	Development of Efficient Scalable Video Compression Schemes for H.264/SVC Platform	Awarded
5.	Ph.D.	Rajashree Nayak	Development of Efficient Methodologies for Image Super Resolution Reconstruction	Awarded
6.	Ph.D.	Umesh Kumar Sahu (Co-supervisor: Prof. B.Subudhi)	Adaptive and Vision Based Controllers for a Flexible Link Manipulator	Awarded
7.	Ph.D.	Sushree Satvatee Swain	ECG signal processing for detection and localization of MI.	Continuing
8.	Ph.D.	Agam Das Goswami (Supervisor: Prof. M.K.Mishra)	An Evaluation of Multi-point Stochastic Simulation approaches for Uncertainty Assessment in Ore Grade Estimation	Awarded
9.	Ph.D.	Deepak Shashikant Sopanrao	Learning based super resolution reconstruction of multispectral remote sensed images	Continuing

Research Publications till date

Book Published

1. **Title: Brain MR Image Segmentation using MRF Model and Tabu Search Strategy, Publisher: VDM Verlag (2010), ISBN-10: 3639215990, ISBN-13: 978-3639215991**

Journals:

1. Sushree Satvatee Swain, Dipti Patra, "Efficient Dynamic Modeling of ECG with Myocardial Infarction using Interacting Multiple Model and Particle Filter", *IET Signal Processing*. (Accepted on 21st July.)
2. Sushree Satvatee Swain, Dipti Patra, "Automated Detection of Myocardial Infarction in ECG using modified Stockwell Transform and Phase distribution pattern from Time-Frequency Analysis", *Biocybernetics and Biomedical Engineering*, **Elsevier**. DOI: **10.1016/j.bbe.2020.06.004**
3. Rajashree Nayak, Dipti Patra, Bunil Ku. Balabantaray, "Super-Resolution Image Reconstruction Using Molecular Docking", *IET Image processing*. DOI: **10.1049/iet-ipr.2019.0491**, Print ISSN 1751-9659, Online ISSN 1751-9667.
4. Rajashree Nayak, Bunil Kumar Balabantaray, Dipti Patra, "A New Single-Image Super-Resolution Using Efficient Feature Fusion and Patch Similarity in Non-Euclidean Space", *Arabian Journal for Science and Engineering*, **Springer**, DOI: **10.1007/s13369-020-04662-9**.
5. Prajna Parimita Dash, Dipti Patra, "An Efficient Hybrid Framework for Visual Tracking using Exponential Quantum Particle Filter and Mean Shift Optimization", *Multimedia Tools and Applications*, **Springer**, DOI: **10.1007/s11042-020-08999-z**.
6. Umesh Sahu, Dipti Patra, Bidyadhar Subudhi, 'Vision Based Tip Position Tracking Control of Two-link Flexible Manipulator', *IET Cyber-Systems and Robotics*. DOI: **10.1049/iet-csr.2019.0035**
7. Yogananda Patnaik, Dipti Patra, "Efficient Scalable Video Coding Method using Discrete Bandelet Transform," *International Journal of Pattern Recognition and Artificial Intelligence*, **World Scientific Journal**, 34(14): 2055023 (28 pages), January 2020, DOI: **10.1142/S021800142055023X**.
8. Prajna Parimita Dash, Dipti Patra, "Mutation based Self Regulating and Self Perception Particle Swarm Optimization for Efficient Object Tracking in a Video," *Measurement*, **Elsevier**, 144:(311-327), October 2019, DOI: **10.1016/j.measurement.2019.05.030**.
9. Umesh Kumar Sahu, Bidyadhar Subudhi, Dipti Patra, "Sampled Data Extended State Observer-based Backstepping Control of two-link Flexible Manipulator," *Transactions of the Institute of Measurement & Control*, **SAGE**, 41(13):3581-3599, 2019, DOI: **10.1177/0142331219832954**.
10. Sushree Satvatee Swain, Dipti Patra, "Multiscale Energy based suitable wavelet selection for Detection of Myocardial Infarction in ECG," *IET Healthcare Technology Letters*, September 2018, DOI: **10.1049/hlt.2018.5007**.
11. Rajashree Nayak and Dipti Patra, "New single-image super-resolution reconstruction using MRF model," *Neurocomputing*, **Elsevier**, DOI: **10.1016/j.neucom.2018.02.090**, March 2018.
12. Rajashree Nayak and Dipti Patra, "Enhanced iterative back projection based Super Resolution reconstruction of digital images," *Arabian Journal for Science and Engineering*, **Springer Nature**, DOI: **10.1007/s13369-018-3150-1**, February 2018.

13. Prajna Parimita Dash, Dipti Patra, "Efficient Visual Tracking using Multi-feature Regularized Robust Sparse Coding and Quantum Particle Filter based Localization." *Journal of Ambient Intelligence and Humanized Computing*, **Springer**, DOI: [10.1007/s12652-017-0663-5](https://doi.org/10.1007/s12652-017-0663-5), January 2018.
14. Agam Das Goswami, M. K. Mishra & Dipti Patra, "Investigation of general regression neural network architecture for grade estimation of an Indian iron ore deposit." *Arabian Journal of Geosciences*, **Springer**, 10:80. DOI: [10.1007/s12517-017-2868-5](https://doi.org/10.1007/s12517-017-2868-5), 2017.
15. Agam Das Goswami, M K Mishra and Dipti Patra, "Incorporating spatial variability of lithological units into ore grade estimation of an Indian limestone deposit", *Journal of Mines, Metals & Fuels*, 2017.
16. Y. Patnaik, D. Patra, "Pattern Based Motion estimation using Zero motion prejudgement and QPSO" *The ECTI Transaction on Computer and Information Technology (ECTI-CIT)*. 11(1): 91-102. 2017.
17. Rajashree Nayak and Dipti Patra, "Super resolution image reconstruction using penalized-spline and phase congruency." *Journal of Computers & Electrical Engineering*, **Elsevier**. 62C:232-248, 2017, DOI:[10.1016/j.compeleceng.2016.10.003](https://doi.org/10.1016/j.compeleceng.2016.10.003).
18. Rajashree Nayak and Dipti Patra, "Super Resolution Image Reconstruction using Weighted Combined Pseudo-Zernike Moment Invariants." *AEU-International Journal of Electronics and Communications*, **Elsevier**. 70(2016):1496-1505, 2016, DOI: [10.1016/j.aeue.2016.09.001](https://doi.org/10.1016/j.aeue.2016.09.001).
19. Smita Pradhan and Dipti Patra. "Enhanced Mutual Information based medical Image Registration." *IET Image Processing*, 10(5):418-427, 2016, DOI: [10.1049/iet-ipr.2015.0346](https://doi.org/10.1049/iet-ipr.2015.0346).
20. Rajashree Nayak and Dipti Patra, "An Edge preserving IBP based Super resolution image reconstruction using P-spline and MuCSO-QPSO algorithm." *Journal of Microsystem Technologies*, **Springer**, 23(3): 553-569, 2017, DOI: [10.1007/s00542-016-2972-6](https://doi.org/10.1007/s00542-016-2972-6).
21. Smita Pradhan, Dipti Patra. "RMI Based Non-rigid Image Registration Using BF-QPSO Optimization and P-spline", *AEU-International Journal of Electronics and Communications*, **Elsevier**, 69 (3): 609-621, DOI:[10.1016/j.aeue.2014.11.003](https://doi.org/10.1016/j.aeue.2014.11.003), 2015.
22. P.P. Dash, D. Patra. "Efficient Object Tracking Algorithm using Modified Colour-Texture Descriptor", *International journal of Computational Intelligence Studies*, **Inderscience**, 4(1):102-112, 2015, DOI: [10.1504/IJCISTUDIES.2015.069843](https://doi.org/10.1504/IJCISTUDIES.2015.069843).
23. Subrajeet Mohapatra, Dipti Patra. "Automated morphometric classification of acute lymphoblastic leukemia in blood microscopic images using an ensemble of classifiers", *Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization*, **Taylor & Francis**. 4(1):3-16, 2016, DOI: [10.1080/21681163.2014.897650](https://doi.org/10.1080/21681163.2014.897650).
24. Subrajeet Mohapatra, Dipti Patra and Sanghamitra Satpathy. "An ensemble classifier system for early diagnosis of acute lymphoblastic leukemia in blood microscopic images", *Neural Computing and Applications*, **Springer**, 24(7):1887-1904, DOI: [10.1007/s00521-013-1438-3](https://doi.org/10.1007/s00521-013-1438-3), 2014.
25. Subrajeet Mohapatra, Dipti Patra, Sunil Kumar and Sanghamitra Satpathy. "Lymphocyte image segmentation using functional link neural architecture for acute leukemia detection", *Biomedical Engineering Letters*, **Springer**. 2(2):100-110, DOI: [10.1007/s13534-012-0056-9](https://doi.org/10.1007/s13534-012-0056-9), 2012.
26. Subrajeet Mohapatra, Dipti Patra, and Kundan Kumar. "Fast leukocyte image segmentation using shadowed sets", *International Journal of Computational Biology and Drug Design*, **Inderscience**. 5(1):49-65, DOI: [10.1504/IJCBDD.2012.045951](https://doi.org/10.1504/IJCBDD.2012.045951), 2012.

27. Subrajeet Mohapatra, Dipti Patra, and Sanghamitra Satpathy. "Unsupervised blood microscopic image segmentation and leukemia detection using color based clustering". *International Journal of Computer Information Systems and Industrial Management Applications*, **MIR Labs**. pp. 477-485, 2012. (SCOPUS)
28. Subrajeet Mohapatra, Dipti Patra, and Kundan Kumar. "Unsupervised leukocyte image segmentation using rough fuzzy clustering", *ISRN Artificial Intelligence*. 2012:1-12, Article ID 923946, **DOI:10.5402/2012/923946**, 2012.
29. Prajna Parimita Dash, Dipti Patra. "Efficient Object Tracking Method Using LBP Based Texture Feature and Ohta Colour Moment", *International Journal of Electronics and Communication Engineering (IASET)*. 1(2):15-22, ISSN: 2278-9901, 2012.
30. Prajna Parimita Dash, Dipti Patra, Sudhansu Kumar Mishra. "Kernel based Object Tracking using Color Histogram Technique", *International Journal of Electronics and Electrical Engineering (IJEET)*. 2(4): 28-35, ISSN : 2277-7040, 2012.
31. Prajna Parimita Dash and Dipti Patra, "Evolutionary Neural Network for Noise Cancellation in Image Data," *International Journal of Computational Vision and Robotics*, **Inderscience**, 2(3) : 206-213, **DOI: [10.1504/IJCVR.2011.042839](https://doi.org/10.1504/IJCVR.2011.042839)**, ISSN:1752-9131, 2011.
32. Mridula J. and Dipti Patra, "Unsupervised Segmentation of Multispectral Textural Images using GA-GMRF Model," *International Journal of Computer Science and Emerging Technologies*, 1(4): 144-149, 2010.
33. Dipti Patra, Manab Kumar Das and Smita Pradhan, "Integration of FCM, PCA and Neural Networks for classification of ECG Arrhythmias," *IAENG International Journal of Computer Science*, 36(3): 229-233, 2009.(SCOPUS)
34. D. Patra and P. K. Nanda, "Image segmentation Using Tabu Search Based Hybrid Algorithm and MRF Model," *International Journal of Computing and Mathematical Applications*, *Special issue on Computations in Computer Engineering*, 1(2):15-27, 2008.

Book Chapters:

1. Smita Pradhan, Ajay Singh and Dipti Patra, "Enhanced Mutual Information-based Multimodal Brain MR Image Registration Using Phase Congruency" Book Title: Progress in Intelligent Computing Techniques: Theory, Practice, and Applications, Springer India, **DOI: 978-981-10-3373-5_19**, 2018. **ISBN 978-981-10-3373-5**
2. Rajashree Nayak, Venkata Sai Krishna Lakinepally, and Dipti Patra, "[Enhanced Super-Resolution Image Reconstruction Using MRF Model](#)", Book Title: Progress in Intelligent Computing Techniques: Theory, Practice, and Applications, **DOI: 978-981-10-3373-5_20**, 2018. **ISBN 978-981-10-3373-5**
3. Smita Pradhan, Dipti Patra, Ajay Singh. "Image Registration of Medical Images using Ripplet Transform.", Book Title: *Computer Vision & Image Processing (CVIP)*, **ISBN: 978-981-10-2106-0 (Print)** 978-981-10-2107-7, vol. 2, pp. 487-494, Springer India, 2017.
4. Prajna Parimita Dash, Dipti Patra, and S.K.Mishra. "Local Binary Pattern as a Texture Feature Descriptor in Object Tracking Algorithm", Book Title: *Intelligent Computing, Networking, and*

Informatics, ID: 315851_1_En, ISBN: 978-81-322-1664-3, vol. 243, pp. 541-548, Springer India, **DOI: 10.1007/978-81-322-1665-0_52**, 2014.

5. Smita Pradhan & Dipti Patra. “Nonrigid Image Registration of Brain MR images using Normalized Mutual Information”, Book Title: *Advances in Intelligent Systems & Computing*, vol. 236, pp 1069-1077, Springer India, **DOI: 10.1007/978-81-322-1602-5_112**, 2014.

Conferences:

1. Yengkhom Omesh Singh, Sushree Satvatee Swain, Dipti Patra, “Time-Frequency Analysis based Detection of Dysrhythmia in ECG using Stockwell Transform,” in *Proceedings of 8th International Conference on Pattern Recognition & Machine Intelligence (PReMI-2019)*, Tezpur, 17-20 December, 2019. Lecture Notes in Computer Science book series (LNCS, volume 11942). **DOI: 10.1007/978-3-030-34872-4_23**
2. Prajna Parimita Dash, Sudhanshu K. Mishra, Dipti Patra, “Animal tracking in wildlife footage with quantum particle filter (QPF),” in *Proceedings - 2019 IEEE International Conference on Information Technology ICIT 2019*, Bhubaneswar, 19-21 December, 2019, **DOI: 10.1109/ICIT48102.2019.00097**
3. Umesh Kumar Sahu, Dipti Patra, “Sliding mode Observer based Tip-tracking control of 2-DoF Flexible Link Manipulator,” in *Proceedings of 9th International Conference on Emerging Trends in Engineering, Technology ICETET*, Nagpur, 1-2 November, 2019. **DOI: 10.1109/ICETET-SIP-1946815.2019.9092199**
4. Sushree Satvatee Swain, Dipti Patra, “Modified sparse representation for ECG reconstruction in telemonitoring,” IEEE Region 10 Annual International Conference, Proceedings/TENCON, Kerala, India, 17-20 October 2019. **DOI: 10.1109/TENCON.2019.8929571**
5. Umesh Kumar Sahu, Dipti Patra, and Bidyadhar Subudhi, “Image-Based Visual Servoing of 2-DOF Serial Flexible Link Manipulator Using Image Moment,” in *Proceedings of Springer International Conference on Machine Learning, Image Processing, Network Security and Data Sciences (MIND-2019)*, NIT Kurukshetra, 3-4 March, 2019.
6. U. K. Sahu, A. Mishra, B. Sahu, P. P. Pradhan, D. Patra, and B. Subudhi, “Vision-based tip position control of a single-link robot manipulator,” in *Proceeding of International Conference on Sustainable Computing in Science, Technology & Management (SUSCOM-2019)*, 26-28 Feb, pp. 1416–1422, Jaipur, India, 2019. (Elsevier SSRN), **DOI:10.2139/ssrn.3356203**.
7. Shashikant Deepak and Dipti Patra, “Enhanced MRF based Super Resolution Method for Remote Sensing Images,” in *Proceedings of IEEE International Conference on Range Technology (ICORT-2019)*, DRDO, Chandipur, 15-17 Feb, 2019. **DOI: 10.1109/ICORT46471.2019.9069619**.
8. Shabnam Choudhury, Anik Chudhury, Dipti Patra, “An ensemble approach for the detection and classification of mixed pixels of remotely sensed images”, in *Proceedings of IEEE International Conference on Recent Advances in Information Technology (RAIT)*, ISM Dhanbad, 15-17 March, 2018. DOI: **10.1109/RAIT.2018.8389026**.
9. Anmol Maharana, Smita Pradhan, Dipti Patra, “Elliptical region of interest based saliency detection”, in *Proceedings of IEEE INDICON 2017*, IIT Roorkee, India, 15-17 Dec. 2017.
10. U.K. Sahu, D. Patra and B. Subudhi, “Network Based Control of 2-DOF Serial Flexible Link Manipulator”, in *Proceedings of the International Conference, IEEE Region 10 Conference TENCON*, Penang, Malaysia, pp. 333-338, 5-8 Nov. 2017.

11. S.S.Swain, D Patra, "Analysis of Myocardial Infarction Using Wavelet Transform and Multiscale Energy Analysis", in Proceedings of the International Conference, IEEE Region 10 Conference TENCON, Penang, Malaysia, pp. 1640-1645, 5-8 Nov. 2017.
12. Shivaprasad Boora, Bharat Chandra Sahu and Dipti Patra. "3D Image Reconstruction from Multiview Images", IEEE 8th International Conference on Computing Communication and Networking Technologies 2017 (ICCCNT), 3-5 July, 2017, IIT Delhi.
13. Agam Das Goswami, M. K. Mishra & Dipti Patra. "Comparative Evaluation of Machine Learning algorithms for iron grade estimation", International conference on Deep Excavation, Energy Resources and Production (DEEP16), 24-26 January, 2017, IIT Kharagpur.
14. Agam Das Goswami, M. K. Mishra & Dipti Patra. "Modelling of geological uncertainties with multiple point geostatistics - Review", National Conference on SUSTAINABLE MINING PRACTICES (SMP- 2016), 02-03 December, 2016, NIT Rourkela.
15. Smita Pradhan and Dipti Patra. "Non-rigid medical image registration using adaptive knot selection in P-spline", IEEE Students' Technology Symposium (TechSym), 250-254, 30 Sept.-2 Oct. 2016, IIT Kharagpur. DOI: [10.1109/TechSym.2016.7872691](https://doi.org/10.1109/TechSym.2016.7872691).
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