

CURRICULUM VITAE of Prof. DIPTI PATRA

Dipti Patra, Employment Code: 1900572

DOB: 06/05/1968

Gender: Female

Professor, Department of Electrical Engineering

National Institute of Technology, Rourkela

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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 |

I, joined as Lecturer in the Department of Electrical Engineering, NIT Rourkela (the then REC Rourkela) in July 1990 and continuing as faculty till date.

Currently holds the position of Professor in Electrical Engineering Department.

PRINCIPAL POSITIONS HELD

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

MAJOR RESEARCH FOCUS

Digital Signal/Image/Video Processing, Computer Vision, Biomedical Signal and Image Processing, Stochastic Processes, Soft Computing, Artificial Intelligence, Machine Learning & Deep Learning techniques.

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)
- IEEE Vice Chair, IEEE Rourkela Subsection (2021)
- IEEE Chair Elect, IEEE Rourkela Subsection (2022, 2023)

- IEEE Chair, IEEE Rourkela Subsection (2024)

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 **12 Ph.D., and 75 Master's** research theses.
- Presently supervising **5** nos. of Doctoral research scholars
- Guided **45 nos. of undergraduate final year projects.**
- Published **151 nos. of research papers** in journals, conference proceedings and book chapters.
- **1 patent** granted in 2026
- Conducted **7** short term courses
- Organised 1 IEEE international Conference CVMI 2025
- Mentored undergraduate student groups for design contests under Texas Instruments Innovation Challenge India Design Contest, National Mission on Education through ICT (NMEICT) etc.
- Reviewer of many IEEE/Elsevier/Springer/Wiley journals, Doctoral Thesis, Conference papers etc.

DEPARTMENTAL SERVICE (Since my joining till date)

- 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 29th Oct-11th 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-till date Member of Centre for “Industrial Electronics & Robotics”.
- 2007-2012 Member of Department Purchase Committee.
- 2013-till date Member of Department Academic Committee
- 2014-till date Member of Department Research Committee
- 2014-2020 Member of Department Academic Program Oversight Committee
- 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 20th August 2019 on behalf of ICC, NIT Rourkela.
- 2022 Organized Short term course on “Gender Equity towards achieving the Sustainable Development Goals of India” sponsored by GATI, DST.
- 2024 Conducted Short Term Course on “Skill Development Workshop on Security Aspects of Cyber Physical Systems: UAV’s & Driverless Cars” sponsored by TiHAN, IIT Hyderabad.
- 2025 Conducted CBDE Pedagogy Workshop on 14th Feb. 2025.

INSTITUTE AND CAMPUS SERVICE (Since my joining till date)

- 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.
- 2008-17 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.
- 2011-13 Faculty Advisor, Kaleidoscope Photographic club, Student Activity Centre.
- 2012-15 Member, Internal Complaint Committee (ICC), NIT Rourkela.
- 2012-15 Warden, KMS Hall of Residence (WOMEN), NIT Rourkela.
- 2015-till date Member, Institute Rastrabhasa (Hindi) Cell
- 2017-2021 Member, Institute Counselling Services
- 2018-19 Associate Dean (Faculty Welfare)
- 2018-21 Chairperson, Internal Complaints Committee (ICC), NIT Rourkela
- 2019-22 Head, Department of Electrical Engineering
- 2020-21 Member, Central Task Force (management during COVID).
- 2021-23 Chairperson of Gender Advancement for Transforming Institution Self-Assessment Team (GATI-GSAT)

2020-till date Coordinator, Centre of Excellence, Practical Renewable Energy System (CoE-PRES)

2023-2025 Professor of Advisor to Director in Administration (PADA), Finance

2021-till date Member, Institute Finance Advisory Committee

2022-23 Chairperson, Committee for evaluation of Best Performance Award among Non Teaching Employees

2023-24 President, Indradhanush Day Care Centre (for children of NIT Campus)

2024-till date Project Investigator, Capacity Building Program for Design and Entrepreneurship (CBDE), funded by MoE

2023-till date Nodal Person, Visvesvaraya PhD Scheme for Electronics & IT, Phase II (Meity)

2023-till date Chairperson, Board of Trustees, NIT Rourkela

2024-till date Member, Institute Grievance & Redressal Cell

2023-25 Member, Institute Advisory Committee on Faculty Recruitment (ACoFaR)

Sponsored Projects:

1. Co-PI, Hub Institute (NIT Rourkela), PAIR (Partnerships for Accelerated Innovation and Research) program by the Anusandhan National Research Foundation (ANRF) 2025-30
2. FIST Project Implementation Group member: “Next-Generation Smart Grid Systems with Sustainable Storage”, funded by DST, 2025-30
3. Project Investigator, “Capacity Building Program for Design and Entrepreneurship (CBDE)”, NIT Rourkela. funded by MoE, 2024-29
4. Co-PI, “Gender Advancement for Transforming Institutions (GATI)” funded by DST, 2021-23
5. PI, Project Title: “Design and Development of Registration & Super Resolution Reconstruction Techniques for Remotely Sensed Images”, RESPOND Project, funded by ISRO, 2017-2020.
6. PI, Project Title: “Real time Signal and Image Processing using soft computing approach”, funded by MHRD, Govt. of India, 2004-2007

National collaborations:

- 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.

SERVICE TO PROFESSIONAL PUBLICATIONS

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.

Recent Outreach activities and Collaborative Programme:

1. Nominated as Academic Council Member of OUTR, Bhubaneswar, 2023-25
2. Invited as expert member for Academic Audit and Annual Faculty Appraisal of Electrical Sciences, VSSUT Burla, 2023-24
3. Examiner of PhD thesis of IIT Patna, IIT BHU, SVNIT Surat, NIT Raipur and many other universities etc.
4. Reviewer of eminent journals published by Elsevier, Springer etc. / Conference papers (ICORT 2023 etc.)
5. DSC Chairperson / member of PhD students of BPUT, VIT-AP
6. Expert for M.Tech evaluation of EE department at IIT Kharagpur etc.
7. Invited as MHRD nominee and expert for faculty recruitment of IIIT Surat, NIT Nagaland, SUIIT, BPUT etc.
8. Advisory and Program Committee Member of International Conferences
9. Invited as keynote and expert speaker for conferences and short term courses.
10. AICTE expert for evaluation of various Institute academic status

AWARDS

1. Best Paper Award in ICORT 2023 conference, DRDO, Chandipur
2. Best Paper Award in RCAAI 2022 conference, MAHE, Manipal.

3. Best Paper Award in IEEE conference IRIA 2021, IIT Goa.

4. Best Paper Awards in IEEE TENCON 2017 conference (two tracks), Penang, Malaysia.

PhD Supervision

| Sl. No. | Degree | Name of student | Title of Thesis | Remarks |
|---------|-----------|---|---|---|
| 1 | Ph.D. | Subrajeet Mohapatra | Hematological Image Analysis for Acute Lymphoblastic Leukemia Detection and Classification. (http://ethesis.nitrkl.ac.in/5662/) | Awarded on 4 th July, 2014 |
| 2 | Ph.D. | Smita Pradhan | Development of Efficient Intensity based Registration Techniques for Multi-modal Brain Images. | Awarded on 7 th February, 2017 |
| 3 | Ph.D. | Prajna Paramita Das | Development of Efficient Methods for Visual Object Tracking. | Awarded on 17 th October, 2017 |
| 4. | Ph.D. | Rajashree Nayak | Development of Efficient Methodologies for Image Super-resolution Reconstruction. | Awarded on 9 th March, 2018 |
| 5. | Ph.D. QIP | Yogananda Pattnaik | Development of Efficient Scalable Video Compression Schemes for H.264/SVC Platform. | Awarded on 23 rd March, 2018 |
| 6. | Ph.D. | Agam Das Goswami | An Evaluation of Multi-point Stochastic Simulation approaches for Uncertainty Assessment in Ore Grade Estimation. | Awarded on 21 st August, 2018 |
| 7. | Ph.D. | Umesh Kumar Sahu | Adaptive and Vision based Controllers for a Flexible Link Manipulator. | Awarded in June 2020 |
| 8. | Ph.D. | Sushree Satvatee Swain | Electrocardiogram Signal Analysis for Myocardial Infarction Detection and Reconstruction. | Awarded in October 2021 |
| 9. | Ph.D. QIP | Chakrapani Ghadai (Co-supervisor: Prof. Manish Okade) | Development of multi-scale deep Learning Models for Facial Expression Recognition. | Awarded on 22 nd January 2026 |
| 10. | Ph.D. | Deepak Shashikant Sopanrao | Efficient Super Resolution Reconstruction Techniques for Remotely Sensed Images. | Submitted on 30 th Jan 2026 |
| 11. | Ph.D. | Shaik Karimulla | An Integrated Artificial Intelligence and | Submitted in |

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| | | | Advanced Signal Processing Framework for Early Prediction of Sudden Cardiac Death from ECG Signal. | December 2025 |
| 12. | Ph.D. | Ankan Banerjee (Co-supervisor: Dr. Pradipta Roy, DRDO) | Development of Efficient Multi-Modal Image Fusion Techniques for Infrared and Visible images | Synopsis seminar delivered in Jan 2026 |

Book:

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

Patents:

1. Dipti Patra, Hasyamayee Garanayak, Sharat Pandey, Sanskar Singh, D.P.Jena, "APPARATUS AND METHOD FOR CALIBRATING INFRARED (IR)/ THERMAL CAMERAS", Indian Patent Application No. 202431048166, **Indian Patent No: 578843**, published on 24/06/2024, **Patent granted on 23/01/2026.**

Journals:

- 1 Madhuri Padwekar, Sandeep Kumar Singh, Dipti Patra, "Joint beamforming and RSMA design for RIS-Aided ISAC systems", *Telecommunication Systems*, **Springer**, vol. 89, 2026. **DOI:10.1007/s11235-025-01392-x**
- 2 Ankan Banerjee, Dipti Patra, Pradipta Roy, "An end-to-end dense network based multi-modal image fusion model for improved object detection in night time images", *Signal, Image & Video Processing*, **Springer**, vol. 19(808), June 2025. **DOI:10.1007/s11760-025-04409-9**
- 3 Shaikh Karimulla, Dipti Patra, "Novel Fusion-Based Time-Frequency Analysis for Early Prediction of Sudden Cardiac Death from Electrocardiogram Signals", *Medical Engineering and Physics*, **Elsevier**, vol. 141(104370), July 2025. **DOI: 10.1016/j.medengphy.2025.104370**
- 4 Shashikant Deepak, Dipti Patra, "Edge and Texture Enhanced Reference based Super-Resolution Network for Remote Sensing Images", *Journal of Photogrammetry, Remote Sensing and Geoinformation Science*, **Springer**, vol. 93, pages:153-171, December 2024. **DOI: 10.1007/s41064-024-00327-6**

- 5 Shaikh Karimulla, Dipti Patra, “A pioneering approach for early prediction of Sudden Cardiac Death via morphological ECG features measurement and ensemble growing techniques”, *Computers and Electrical Engineering, Elsevier*, vol. 120 (109740), Part A, December 2024, **DOI:10.1016/j.compeleceng.2024.109740**
- 6 Chakrapani Ghadai, Dipti Patra, Manish Okade, “A novel facial expression recognition model based on harnessing complementary features in multi-scale network with attention fusion”, *Image and Vision Computing, Elsevier*, vol. 149, no. 9, pages: 1-9, September 2024. **DOI:10.1016/j.imavis.2024.105183**
- 7 Shaikh Karimulla, Dipti Patra, “An optimal methodology for early prediction of Sudden Cardiac Death using advanced heart rate variability features of ECG signal”, *Arabian Journal for Science and Engineering, Springer Nature*, vol. 49, no. 10, pages 6725–6741, November 2023. **DOI:10.1007/s13369-023-08457-6**
- 8 Subrat Kumar Kabi, Rajesh Kumar Tripathy, Dipti Patra, Ganapati Panda, “A Novel Approach for the Detection of Tuberculosis and Pneumonia using Chest X-ray Images for Smart Healthcare Applications”, *IEEE Sensors Letters*, vol. 7, no. 12, December 2023, **DOI: 10.1109/LSENS.2023.3327580**
- 9 Umesh Kumar Sahu, Dipti Patra, Bidyadhar Subudhi, "Adaptive Intelligent Vision Based Control of a Flexible Link Manipulator", *Electrical Engineering, Springer*, vol. 105, no. 5, page 3263-3281, June 2023, **DOI:10.1007/s00202-023-01875-7**
- 10 Agam Das Goswami, MK Mishra, Dipti Patra, “Evaluation of machine learning algorithms for grade estimation using GRNN & SVR”, *Engineering Research Express*, IOP publishing, vol. 4, no. 3, 2022, **DOI: 10.1088/2631-8695/ac8912** (E-SCI)
- 11 Shashikant Deepak, Dipti Patra and S. Manthira Moorthi, “Single image super-resolution reconstruction of remotely sensed images using MRF-2D phase congruency model”, *Journal of Applied Remote Sensing, SPIE*, vol. 15, no. 4, November 2021, **DOI: 10.1117/1.JRS.15.046507**
- 12 Anmol Maharana, Dipti Patra, and Smita Pradhan, "Robust spatial information based tumor detection for brain MR images", *IET Electronics Letters*, vol.56, no.25, pp.1398-1400, December 2020, **DOI: 10.1049/el.2020.2703**
- 13 Sushree Satvatee Swain and Dipti Patra, "Efficient dynamic modelling of ECG with myocardial infarction using interacting multiple model and particle filter", *IET Signal Processing*, vol.14, no.8, pp.495-505, October

2020, DOI: 10.1049/iet-spr.2019.0458

- 14 Sushree Satvatee Swain, Dipti Patra, and Yengkhom Omesh Singh, "Automated detection of myocardial infarction in ECG using modified Stockwell transform and phase distribution pattern from time-frequency analysis", *Biocybernetics and Biomedical Engineering, Elsevier*, vol.40, no.3, pp.1174-1189, July 2020, DOI: 10.1016/j.bbe.2020.06.004
- 15 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*, 45(12):10261-10285, DOI: 10.1007/s13369-020-04662-9.
- 16 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.
- 17 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.
- 18 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
- 19 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.
- 20 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.
- 21 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.
- 22 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/htl.2018.5007.

- 23 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.
- 24 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.
- 25 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**, January 2018. (SCOPUS)
- 26 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**, 2017.
- 27 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.
- 28 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.
- 29 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**.
- 30 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**.
- 31 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**.
- 32 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**.

- 33 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.
- 34 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).
- 35 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).
- 36 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.
- 37 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.
- 38 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.
- 39 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)
- 40 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](https://doi.org/10.5402/2012/923946), 2012.
- 41 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 (IASSET). 1(2):15-22, ISSN: 2278-9901, 2012.

- 42 Prajna Parimita Dash, Dipti Patra, Sudhansu Kumar Mishra. "Kernel based Object Tracking using Color Histogram Technique", *International Journal of Electronics and Electrical Engineering (IJEEE)*. 2(4): 28-35, ISSN : 2277-7040,2012.
- 43 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.
- 44 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.
- 45 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)
- 46 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. Ankan Banerjee, Dipti Patra, and Pradipta Roy, "Improved Multi-modal Image Fusion with Attention and Dense Networks: Visual and Quantitative Evaluation", Book Title: Communications in Computer and Information Science, Ch.1, Springer Cham, July 2024, https://doi.org/10.1007/978-3-031-58535-7_20
2. Rajashree Nayak, Bunil Ku Balabantaray, Dipti Patra, "Modified GAN-based Transfer Learning for automatic detection of COVID-19 cases using Chest X-Ray Images", Book Title: Computational Modeling and Data Analysis in COVID-19 Research, Ch. 3, Pg: 29-39, CRC Press, 2021, eBook ISBN: 9781003137481
3. 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](https://doi.org/10.1007/978-981-10-3373-5_19), 2018. ISBN

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