

Name: Dr. Nilesh Bhaskarrao Bahadure

Designation: Professor

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School: Technology (SoT)



Research Interest:

- **Biomedical imaging, Internet of Things, and Machine Learning**

Academic Background:

Degree	Subject	University	Year
PhD	Electronics Engineering	KIIT University Bhubaneswar	2018
ME	Digital Electronics	SGB Amravati University	2005
BE	Electronics Engineering	RTM Nagpur University	2000

Professional Experience:

From	Period	Position	Organisation
2/6/2022 to 30/6/2024	2 years	Associate Professor	Symbiosis Institute of Technology Nagpur
1/2/2019 to 31/5/2022	3.3 Years	Associate Professor	SGU Kolhapur
21/6/2018 to 23/1/2019	0.7 Years	Associate Professor	SVERI's College of engineering Pandharpur
3/7/2017 to 20/6/2018	1 year	Assistant Professor	MITCORER Barshi
11/8/2010 to 30/6/2017	7 Years	Associate Professor	Bhilai Institute of Technology Raipur
7/8/2003 to 10/8/2010	7 Years	Assistant Professor	Bhilai Institute of Technology Durg

Teaching Engagements:

Title	Course Code	Class Name	School Name
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Digital Electronics	EC307	B.Tech CSE 3rd Sem	Technology
Basic Electronics	EC101	B.Tech CSE 1st and 2nd Sem	Technology
Microprocessor	EC402	B.Tech CSE 4th Sem	Technology
Internet of Things	EC501	B.Tech CSE 5th Sem	Technology

Publications: Journals: 20 (SCI = 06, SCOPUS = 11), Book Chapters = 04 (SCOPUS), and International Conferences = 28 (SCOPUS)

Book Chapters

1. **Nilesh Bhaskarrao Bahadure**, Ramdas Khomane, Anjali Singh, Others, and Sidheshwar Routray, “Human Biological Analysis Through Fitness Watch using the Deep Learning Algorithm”. Wellness Management Powered by AI Technologies. Scrivener Publishing (Wiley)
Accepted: 2023
2. Jagdish Chandra Patni, Tanupriya Choudhury, Pawan Kumar Mishra, **Nilesh Bahadure** and Mahendra Singh Aswal, “DataVerse: Empowering Artificial Intelligence using Metaverse Error! Bookmark not defined.”. Artificial Intelligence and Metaverse through Data Engineering (Nova)
Year of publication: 2024
3. Bhong V.S., Waghmare D.L., Jadhav A.A., **Bahadure N.B.**, Bhaladar H.K., Vibhute A.S. (2020) Design Farming Robot for Weed Detection and Herbicides Applications Using Image Processing. In: Pawar P., Ronge B., Balasubramaniam R., Vibhute A., Apte S. (eds) Techno-Societal 2018. Springer, Cham
Year of publication: 2020
4. **Nilesh Bhaskarrao Bahadure**, Arun Kumar Ray, and Sidheshwar Routray, “Detection of Brain Tumor from MR images using BWT and SOM-SVM with Authentication”, In Proceedings of Springer – Lecture Notes in Electrical Engineering, 3rd International Conference on Communication, Circuits, and Systems (iC3S 2020), October 16 - 18, 2020, Bhubaneswar, India. (Indexed in SCOPUS)
Year of publication: 2020

International Journals

SCI/SCIE

1. **Nilesh Bhaskarrao Bahadure**, Ramdas Khomane and Aditya Nittala, Anemia Detection and Classification from Blood Samples using Data Analysis and Deep Learning, Automatika - Taylor and Francis, Vol. 65, No. 3, 2024

2. S. Kalyan, A. Bhosale, P.D. Patil, **Nilesh Bhaskarrao Bahadure**, CuS/GO composite for high performance Lithium ion storage, Elsevier - Applied Surface Science Advances, Vol. 11, 2022
3. Neeta Kulkarni, Rajin M. Linus, **Nilesh Bhaskarrao Bahadure**, A small wideband inverted L-shaped flexible antenna for sub-6 GHz 5G applications, Elsevier AEU - International Journal of Electronics and Communications, Vol. 159, 2023
4. Neeta Kulkarni, **Nilesh Bhaskarrao Bahadure**, P.D. Patil, Jayshri Kulkarni, Flexible Interconnected 4-Port MIMO Antenna for Sub-6 GHz 5G and X Band Applications, Elsevier AEU - International Journal of Electronics and Communications, Vol. 152, 2022
5. **Nilesh Bhaskarrao Bahadure**, Arun Kumar Ray, and Har Pal Thethi, Comparative Approach of MRI-based Brain Tumor Segmentation and Classification using Genetic Algorithm, Springer - Journal of Digital Imaging, Vol. 31, No.4, 2018
6. **Nilesh Bhaskarrao Bahadure**, Arun Kumar Ray, and Har Pal Thethi, A Comparative Approach of Brain Tumor Detection using SVM, DCT and Huffman Coding in Compressed Domain”, Current Medical Imaging Reviews, Vol. 14, Issue 5, 2018

SCOPUS

7. **Nilesh Bhaskarrao Bahadure**, Oshin Sahare, Nishant Shukla, Rohit Mandal, Jagdish Chandra Patni, Md. Khaja Mohiddin, and Pramod Pandey, Air Quality Index Prediction for Clearer Skies Using Improved Long Short-Term Memory, Intelligent Decision Technologies (IOS Press, Accepted), 2024
8. **Nilesh Bhaskarrao Bahadure**, Ramdas Khomane, Deep Raut, Devanshu Bhagwatkar, Himanshu Bakshi, Priyanshu Bawse, Pari Nagpal, and Prasenjeet Patil, Comparative Analysis of Life Expectancy Prediction using Regression Algorithms, Intelligent Decision Technologies (IOS Press, Accepted), 2024
9. **Nilesh Bhaskarrao Bahadure**, Muktinath Vishwakarma, Manish P. Kurhekar, Jagdish Chandra Patni, and Prasenjeet D. Patil, Machine Learning-based Music Classification and Recommendation System from Spotify, International Journal of Computer Information Systems and Industrial Management Applications (Accepted), 2024
10. **Nilesh Bhaskarrao Bahadure**, V. Pandimurugan, A.V. Prabu, S. Rajasoundaran, D Ratna Kishore and Sidheshwar Routray, Investigation of COVID-19 symptoms using deep learning-based image enhancement scheme for x-ray medical images, International Journal of Biometrics, Vol. 15 Nos 3-4, 2023
11. **Nilesh Bhaskarrao Bahadure**, Prasanjeeth D Patil, and N. Raju, MR Image Enhancement and Brain Tumor Detection using Soft Computing and BWT with Auto-Enhance Technique, International Journal of Biometrics, Vol. 15 Nos 3-4, 2023
12. **Nilesh Bhaskarrao Bahadure**, Arun Kumar Ray, and Har Pal Thethi, Image analysis for brain tumor detection using GA-SVM with auto-report generation technique, International Journal of Biomedical Engineering and Technology, Vol. 32, No. 3, 2020
13. Shubham Juneja, Chhaya Chandra, P. D. Mahapatra, Siddhi Sathe, **Nilesh B. Bahadure**, Sankalp Verma, Kinect Sensor based Indian Sign Language Detection with

Voice Extraction, International Journal of Computer Science and Information Security, Vol. 16 No. 4, 2018

14. **Nilesh Bhaskarrao Bahadure**, Arun Kumar Ray, and Sidheswar Routray, SVM - LWT enabled fuzzy clustering-based image analysis for brain tumor detection, International Journal of Pure and Applied Mathematics, Vol. 117, No. 19, 2017
15. **Nilesh Bhaskarrao Bahadure**, Arun Kumar Ray, and Har Pal Thethi, DCT Enabled Lifting Wavelet Transformation Based Image Analysis for Brain Tumor Detection and Extraction”, International Journal of Engineering and Technology, Vol. 9, No. 2, 2017
16. **Nilesh Bhaskarrao Bahadure**, Arun Kumar Ray, and Har Pal Thethi, Image Analysis for MRI Based Brain Tumor Detection and Feature Extraction Using Biologically Inspired BWT and SVM, International Journal of Biomedical Imaging, Vol. 2017
17. **Nilesh B. Bahadure**, Sankalp Verma, Shubham Juneja, Chhaya Chandra, D.K. Mishra, and P.D. Mahapatra, Sign Language Detection with Voice Extraction in Matlab using Kinect Sensor, International Journal of Computer Science and Information Security, Vol. 14, No. 12, 2016

International Conferences (SCOPUS Indexed)

1. **Nilesh Bhaskarrao Bahadure**, Aryan Bhutda, Aditya Nittala, Rishikesh Kumbhalkar, Jagdish Chandra Patni, and Md. Khaja Mohiddin, Comparative Analysis of Workforce Adaptation and Job Evolution in the Age of Automation using Machine Learning, International Conference On Emerging Trends In Networks And Computer Communications (ETNCC), Namibia University, Namibia, 2024 (Presented)
2. **Nilesh Bhaskarrao Bahadure**, Jagdish Chandra Patni, Latika Pinjarkar, Poorva Agrawal, Gagandeep Kaur, and Pramod Kumar Pandey, Harnessing Long Short Term Memory’s Temporal Prowess for Clearer Skies, EAI AFRICATEK 2024 - 7th EAI International Conference on Emerging Technologies for Developing Countries, University of Ilorin, Ilorin, Nigeria, 2024 (Presented)
3. Neeraj Kumar Pandey, Amit Kumar Mishra, **Nilesh Bhaskarrao Bahadure**, Ajay Shukla, Manoj Diwakar, and Ankur Dumka, DRL-iCloud: Deep Reinforcement Learning Based Real-Time Task Scheduling in Integrated Cloud, International Conference on Control, Computing, Communication and Materials, United Group of Institutions, Prayagraj, India, 2024 (Presented)
4. Amit Kumar Mishra, **Nilesh Bhaskarrao Bahadure**, Ankur Dumka, Manoj Diwakar, Neeraj Kumar Pandey, and Jagdish Patni, The Impact of Digital Workforce and Robotics in Ubiquitous Technology, IEEE International Conference on Smart Devices (ICSD 2023), Uttaranchal University, India, 2024 (Presented)
5. Ankur Dumka, Arnav Pandey, Amit Kumar Mishra, **Nilesh Bhaskarrao Bahadure**, Neha Tripathi, World Coin Currency Detection: A Comparative Study of Machine Learning and Deep Learning Algorithms, IEEE International Conference on Smart Devices (ICSD 2023), Uttaranchal University, India, 2024 (Presented)
6. Amit Kumar Mishra, Neeraj Kumar Pandey, Manoj Diwakar, **Nilesh Bhaskarrao Bahadure**, Ankur Dumka, and Jagdish Patni, A Critical Analysis of Object Tracking

Using Radial Function Networks, IEEE International Conference on Smart Devices (ICSD 2023), Uttaranchal University, India, 2024 (Presented)

7. Amit Kumar Mishra, **Nilesh Bhaskarrao Bahadure**, Vaibhav Chaudhari, Neeraj Kumar Pandey, Manoj Diwakar, and Ankur Dumka, Evaluation On the Role of Machine Learning Exposing Students to More Recent Opportunities in Life, IEEE International Conference on Smart Devices (ICSD 2023), Uttaranchal University, India, 2024 (Presented)
8. **Nilesh Bhaskarrao Bahadure**, JC Patni, Detection of Hydrocephalus in Brain Using Visual Geometry Group-16 Architecture, 9th International Conference on Research Innovations - Trends in Computational Science, Bangkok, 2024 (Accepted)
9. **Nilesh Bhaskarrao Bahadure**, Sardar M. Shaikh, S. V. Khandal, Effect of Multiple Fuel Injection Strategies on the Performance of Common Rail Direct Injection Engine Fueled with Biodiesel of Used Temple Oil, International Conference on Innovative Trends in Electrical, Electronics and Bio-Technology Engineering (ICITEEB-2024), Chandigarh University, Gharuan, Mohali, Punjab, 2024 (Presented)
10. **Nilesh Bhaskarrao Bahadure**, Ramdas Khomane, Saloni Mahadule, Sanjula Kalbande, Vedant Shirao, Shruti Potey, Sejal Dhande, and S. V. Khandal, Comparative Analysis of Mental Health and Psychological Swotting in the Digital Era, 5th International Conference on Data Analytics & Management (ICDAM-2024), London Metropolitan University, London, UK, 2024 (Presented)
11. Jagdish Chandra Patni, Sudhir Kumar Rajput, and **Nilesh Bahadure**, Intelligent toll management using limited CNN-based Vehicle Classification, 1st International Conference on Innovation & Emerging Trends in Computing & Information Technology (Springer CCIS), Chandigarh University, Gharuan, Mohali, Punjab, 2024 (Presented)
12. **Nilesh Bhaskarrao Bahadure**, Ramdas Khomane, Jayesh Ikhari, Lavanya Chavan, Purva Mundada, Rishikesh Kumbhalkar, Vaishnavi Gulhane, and Nagrajan Raju, Comparative Analysis of Polarity of Text-based Sentiment Analysis, IEEE 3rd International Conference for Innovation in Technology (INOCON), Sai Vidya Institute of Technology, Rajanukunte, Bengaluru, Karnataka, 2024
13. **Nilesh Bhaskarrao Bahadure**, Ramdas Khomane, Deep Raut, Yogesh Chendake, Sidheswar Routray, and D. P. Mishra, Regression Model Selection for Life Expectancy Prediction: A Comparative Analysis of Imputation Techniques, IEEE 04th International Conference on Advanced Research in Computing (ICARC), Sri Lanka, 2024
14. **Nilesh Bhaskarrao Bahadure**, Ramdas Khomane, Shafaq, Sahil Pathan, Akash Sharma, and Parth Satokar, Importance of Human Judgment in Artificial Intelligence: A Panoramic Overview, Springer International Conference on Algorithms and Computational Theory for Engineering Applications (ICACTEA- 2024), Aditya Engg College, India, 2024
15. **Nilesh Bhaskarrao Bahadure**, Ramdas Khomane, Aditya Nittala, Abhinav Singh, Dev Chadalwada, Om Bonde, Somesh Nagar, and Nagrajan Raju, Anemia Detection and Classification Using Data Analysis of Blood Samples, IEEE International Conference on Artificial Intelligence for Innovations in Healthcare Industries (ICAIHI-2023),SSIPMT, Raipur, India, 2023

16. **Nilesh Bhaskarrao Bahadure**, Sachikanta Dash, Sasmita Padhy, Avilash Satpathy, and Sidheswar Routray, Rare Diseases Severity Prediction System Using a Machine Learning-based Technique, IEEE International Conference on Artificial Intelligence for Innovations in Healthcare Industries (ICAIHI-2023),SSIPMT, Raipur, India, 2023
17. **Nilesh Bhaskarrao Bahadure**, Prasenjeet Damodar Patil, Sidheswar Routray, and Mahantesh Mattada, Enhancing Performance and Security Measures in Modern Automated Environments, in AIP Conference Proceedings International Conference on Artificial Intelligence and Data Engineering 2023 (AIDE-2023), NITTE Deemed to be University, India, 2023
18. **Nilesh Bhaskarrao Bahadure**, Prasenjeet Damodar Patil, Sanjula Kalbande, Somesh Nagar, Shailaja Pipalatkar, and Om Kuhikar, Machine Learning based Music Recommendation System from Spotify, Springer - 15th World Congress on Nature and Biologically Inspired Computing (NaBIC 2023), Lecture Notes in Networks and Systems, Machine Intelligence Research Labs (MIR Labs), USA, 2023
19. **Nilesh Bhaskarrao Bahadure**, Prasenjeet Damodar Patil, Raghav Birewar, Prateek Nayyar, Ashutosh Shrivastava, and Manmeet Oberoi, Traffic Signal Detection and Recognition from Real-Scenes Using YOLO, 2023 IEEE Engineering Informatics, SGU Kolhapur and Swinburne University Australia, 2023
20. Neeta Kulkarni, **Nilesh Bhaskarrao Bahadure**, P.D. Patil, Jayshri Kulkarni, Flexible MIMO Antennas for 5G Applications, In Proceedings of 10th IEEE International Conference on Emerging Trends in Engineering & Technology Signal and Information Processing (ICETET SIP-22), Nagpur, Maharashtra, India, 2022
21. Neeta Kulkarni, **Nilesh Bhaskarrao Bahadure**, P.D. Patil, and Jayshri Kulkarni, "Circular Patch Antenna with Comb-Shaped Slot for NR-79/Wi-Fi Applications", In Proceedings of IEEE REGION 10 CONFERENCE (TENCON - 2020), Osaka, Japan, 2020
22. **Nilesh Bhaskarrao Bahadure**, Arun Kumar Ray, and Sidheshwar Routray, Detection of Brain Tumor from MR images using BWT and SOM-SVM with Authentication, In Proceedings of Springer - Lecture Notes in Electrical Engineering, 3rd International Conference on Communication, Circuits, and Systems (iC3S 2020), Bhubaneswar, India, 2020
23. Uma Pujari, P.D. Patil, and **Nilesh Bhaskarrao Bahadure**, Internet of Things based Integrated Smart Home Automation System, In Proceedings of Elsevier-SSRN 2nd International Conference on Communications and Information Processing (ICCIP), Pune, India, 2020
24. **Nilesh B. Bahadure**, Arun Kumar Ray and H. Pal Thethi, Feature Extraction and Selection with Optimization Technique for Brain Tumor Detection from MR Images, In Proceedings of IEEE International Conference on International Conference on Computational Intelligence in Data Science, Chennai, India, 2017
25. **Nilesh B. Bahadure**, Laukesh Jaiswal, and Nitish Kumar, Design of Education Simulation System for Control System and Image Processing Applications using Matlab, 4th International Conference on Science, Technology and Management, New Delhi, India, 2016

26. **Nilesh B. Bahadure**, Arun Kumar Ray and H. Pal Thethi, Performance Analysis of Image Segmentation Using Watershed Algorithm, Fuzzy C - Means of Clustering Algorithm and Simulink Design, In Proceedings of IEEE International Conference on Computing for Sustainable Global Development, New Delhi, India, 2016

Book: 13

1. Title: “Python GUI using PyQt5”
Co-author: Sourabh Chandrakar
Publisher: BPB Publications Pvt Ltd, New Delhi
ISBN: 9789355515575
Year of publication: 2023
<https://drive.google.com/file/d/18IgNk5YMYHUQ3BQpgJXhZRRlnxFi3odI/view>
2. Title: “Building Modern GUIs with tkinter and Python”
Co-author: Sourabh Chandrakar
Publisher: BPB Publications Pvt Ltd, New Delhi
ISBN: 9789355518569
Year of publication: 2023
<https://in.bpbonline.com/products/building-modern-guis-with-tkinter-and-python>
3. Title: “Python For Everyone”
Co-author: Sourabh Chandrakar
Publisher: BPB Private Limited, New Delhi
ISBN: 9789355518156
Year of publication: 2023
<https://in.bpbonline.com/products/python-training-guide-1>
4. Title: “Programming Techniques using Python”
Co-author: Sourabh Chandrakar
Publisher: BPB Private Limited, New Delhi
ISBN: 9789389845891
Year of publication: 2022
<https://in.bpbonline.com/products/programming-techniques-using-python-1>
5. Title: “Programming Techniques using Matlab”
Co-author: Sourabh Chandrakar
Publisher: Scitech Publications Pvt Ltd Chennai
ISBN: 9789392399282
Year of publication: 2022
<https://scitechpublications.com/shop/electrical-science/programming-techniques-using-matlab/>

6. Title: "Microcontroller's and Embedded System Design"
Co-author: Mr. Saurabh Chandrakar, Scientist BHEL Hyderabad
Publisher: I.K. International Publishing House Pvt. Ltd., New Delhi - 110 016
Year of publication: February 2019
7. Title: "A Document Preparation System Basic and Applications"
Co-authors: Sankalp Verma and Md. Khwaja Mohiddin
Publisher: Notion Press (Online)
Website: <https://notionpress.com/read/latex-a-document-preparation-system>
Year of publication: 2019
8. Title: "Modeling of Partial Discharge for Solid Insulation"
Co-author: Devendra Gowda and Anandraj Desai
Publisher: Lambert, Germany
ISBN: 978-613-9-45281-1
Year of publication: 2019
9. Title: "A Study on Job Satisfaction Among the Employees of SGI - School"
Co-author: Shobha Kumbar and Snehal Shinde
Publisher: Lambert, Germany
ISBN: 978-613-9-45187-6
Year of publication: 2019
10. Title: "Sign Language Detection using Kinect Sensor"
Co-author: Shubham Juneja and Sankalp Verma
Publisher: Lambert, Germany
ISBN: 978-613-9-46209-4
Year of publication: 2019
11. Title: "Image and Speech Compression by Ratio Comparison using Huffman Coding Algorithm in Matlab"
Publisher: Lambert, Germany
ISBN: 978 - 613 - 9 - 89720 - 9
Year of publication: 2018
12. Title: "Microprocessors: The 8086/8088, 80186/80286, 80386/80486 and The Pentium Family"
Publisher: PHI Learning Pvt. Ltd. New Delhi - 110 001
ISBN: 978 - 81 - 203 - 3942 - 2
Year of publication: 2010
13. Title: "Basic Electrical Engineering"
Publisher: Pearson Education Pvt. Ltd. New Delhi

Year of publication: 2011

Awards/Recognitions: Listed in AD Scientific Index Award 2021, 2022, and 2023