

DR. DIGVIJAY JOTIRAM PAWAR

LINCOLN GLOBAL POSTDOCTORAL RESEARCHER

ASSOCIATE PROFESSOR & HEAD | PUBLIC RELATIONS OFFICER

Electronics & Telecommunication Engineering | Academic Leadership | Research | Institutional Communication



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Kolhapur, Maharashtra, India

EXECUTIVE PROFILE

A student-centric and research-oriented academic leader with 17 years of experience across engineering education, departmental leadership, institutional administration, public relations, admissions outreach, student mentoring and innovation. Currently serving as Associate Professor and Head of Electronics and Telecommunication Engineering at Ashokrao Mane Group of Institutions (AMGOI), while contributing as Public Relations Officer and Lincoln Global Postdoctoral Researcher at Lincoln University College, Malaysia. The profile integrates strong technical expertise in machine learning, image processing, embedded systems, VLSI, communication engineering and healthcare imaging with proven capability in academic governance, faculty coordination, OBE/NBA/NEP implementation, media communication and industry-aligned student development.

17	33	06	03	37
Years Experience	Research Publications	Patents	Books	FDPs / Workshops

Academic Credentials & Research Identity

Lincoln Global Postdoctoral Researcher - Lincoln University College, Malaysia - from March 2026	Scopus Author ID 57842628900
Ph.D. in Electronics Engineering - Shivaji University, Kolhapur	ORCID iD 0000-0002-9911-8409
M.Tech. in Electronics Technology - Shivaji University, Kolhapur - First Class	VIDWAN ID 593689
B.E. in Electronics Engineering - Shivaji University, Kolhapur - First Class	

Core Domains: Machine Learning | Image Processing | Embedded Systems | VLSI | Communication Engineering | OBE & Academic Governance

Leadership Value Proposition

Academic Quality Strengthens curriculum delivery, faculty coordination, student progression and outcome-based academic systems.	Research & Innovation Builds a multidisciplinary research culture through publications, patents, project mentoring and emerging technologies.	Institutional Visibility Combines academic leadership with public relations, admissions outreach, media communication and stakeholder engagement.
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Selected Career Highlights

Global Research Lincoln Global Postdoctoral Researcher at Lincoln University College, Malaysia.	Academic Leadership Head of E&TC Engineering and former Principal with experience across university, engineering and polytechnic education.
Research Output 33 scholarly contributions, six patents and three books/translated works.	Student Mentorship Guided award-winning multidisciplinary and AVISHKAR project teams.
Public Engagement Public Relations Officer with extensive admissions, media and institutional communication experience.	Knowledge Sharing 37 FDPs/workshops and 20+ invited lectures; 45+ newspaper articles.

PROFESSIONAL EXPERIENCE & CAREER PROGRESSION

A progressive academic career spanning university, polytechnic and autonomous engineering education, combining classroom excellence with institutional leadership, public engagement and research mentoring.

June 2024 - Present	Associate Professor & Head, Department of E&TC Engineering Ashokrao Mane Group of Institutions (AMGOI), Vathar, Kolhapur - Lead departmental academic planning, faculty coordination, result improvement, curriculum delivery, project monitoring and student-centric development. - Serve as Public Relations Officer, strengthening institutional communication, media coverage, admissions outreach, event documentation and public image. - Drive research culture, industry interaction, innovation activities, ETSA initiatives, student mentoring and quality documentation aligned with OBE, NBA and NEP 2020.
18 Aug 2021 - June 2024	Assistant Professor, Department of E&TC Engineering Ashokrao Mane Group of Institutions (AMGOI), Vathar, Kolhapur - Delivered core electronics and telecommunication courses, guided student projects and supported department-level academic development. - Contributed to admissions communication, public relations, social outreach and technical events at institute level.
17 July 2018 - 17 Oct 2021	Principal Y. D. Mane Institute of Technology (Polytechnic), Kagal, Kolhapur - Led academic administration, faculty coordination, examinations, student discipline, institutional planning and development. - Initiated establishment of an Industrial Training Institute under the AICTE Spare Capacity Scheme and established the YDMIT Techno-Centre as a student start-up initiative.
01 Aug 2013 - 30 June 2018	Assistant Professor Bharati Vidyapeeth's College of Engineering, Kolhapur - Taught undergraduate electronics and telecommunication courses, guided laboratories and projects, and contributed to academic evaluation. - Served in publicity, NIRF, newsletter, ETSA and student engagement responsibilities.
01 July 2011 - 31 July 2013	Assistant Professor Dhananjay Mahadik Group of Institutions, Kagal, Kolhapur Delivered electronics engineering instruction, coordinated laboratories and supported student development and institutional events.
Aug 2011 - May 2012	Visiting Lecturer Department of Technology, Shivaji University, Kolhapur Conducted lecture sessions and supported academic delivery in electronics engineering subjects.
Aug 2010 - May 2011	Visiting Lecturer Government Polytechnic, Kolhapur Handled technical teaching assignments and foundational academic responsibilities.
July 2009 - July 2010	Visiting Lecturer YCMOU B.Tech. Centre, Kolhapur Contributed to engineering course delivery for working and distance-learning students.

LEADERSHIP, GOVERNANCE & CORE COMPETENCIES

Current Institutional Leadership Portfolio

Head of Department - E&TC Engineering	Academic planning, faculty coordination, curriculum execution, result improvement, project monitoring, departmental development and student progression.
Public Relations Officer - AMGOI	Institutional communication, media relations, admission outreach, public visibility, event publicity and strategic academic storytelling.
FC Officer In-charge - Admission Process	Student counselling, facilitation and coordination for First Year and Direct Second Year admissions.
Member Secretary - Student & Faculty Grievance Redressal	Structured documentation, coordination and timely support for grievance resolution.
Member - IIC, R&D Committee and Industry-Institute Interaction Cell	Innovation ecosystem, research culture, industry engagement, intellectual property and project support.
Social Club In-charge & ETSA Coordinator	Community outreach, student association mentoring, co-curricular engagement and social responsibility.
Maintenance Coordinator	Infrastructure monitoring, laboratory readiness and departmental operational support.

Strategic Competencies

Academic Leadership Structured planning, team coordination, quality assurance and student-centric governance.	Research & Innovation Machine learning, healthcare imaging, embedded systems, VLSI and multidisciplinary project mentoring.	Public Relations Media communication, academic branding, outreach, admission promotion and stakeholder engagement.
OBE / NBA / NEP Outcome mapping, quality documentation, assessment improvement and curriculum-focused implementation.	Student Development Mentoring, career guidance, skill programs, project competitions and innovation culture.	Institution Building Committee leadership, process improvement, academic events, industry interaction and community outreach.

Technical Teaching & Research Domains

Undergraduate Teaching	Linear Integrated Circuits; Network Analysis; Embedded Systems; Electronic System Design; Microcontrollers; Digital Techniques; Computer Organization; Power Electronics.
Postgraduate Teaching	Research Methodology; Embedded and VLSI Design.
Research Interests	Machine Learning; Image Processing; Computer Vision; Embedded Systems; VLSI Systems; Healthcare Imaging; Intelligent Automation; Communication Systems.
Project Guidance	Guided undergraduate and postgraduate projects, including award-winning multidisciplinary and AVISHKAR teams.

University-Level Academic Responsibilities

- Question Paper Setter for Shivaji University, Kolhapur and Dr. Babasaheb Ambedkar Technological University, Lonere.
- Panel Member for examinations and academic evaluation at engineering institutes.
- Resource person for faculty development programmes, induction programmes, workshops and guest lectures.

Leadership Outcomes & Academic Impact

Department Development Promotes structured academic planning, faculty ownership, student participation and result-oriented review.	Innovation Ecosystem Connects student projects with research, patents, industry interaction, competitions and multidisciplinary problem solving.
Quality & Accreditation Supports OBE, NBA, NEP 2020, academic documentation, curriculum improvement and assessment quality.	Stakeholder Communication Strengthens institutional visibility through media relations, admissions outreach, publications and academic branding.

AWARDS, INTELLECTUAL PROPERTY & RESEARCH MENTORSHIP

Awards & Recognitions

1	Ideal Education Ratna Award 2024 Devdan Multipurpose Charitable Trust, Sangli.
2	Certificate of Honor - 2024 and 2025 Young Inspirators Network (YIN), Sakal Media Group, for contributions in education, social engagement and research.
3	Best Multidisciplinary Project Award Mentorship of the UG project “Tomato Leaf Disease Detection Using Deep Learning”.
4	First Prize - AVISHKAR 2026 (UG) Mentored Ms. Mrunali M. Patil in Humanities, Language and Fine Arts at the DBATU zonal-level project competition.
5	First Prize - AVISHKAR 2026 (PG) Mentored Ms. Vidyashri Boragalli in Medicine and Pharmacy at the DBATU zonal-level project competition.

Intellectual Property Portfolio - 06 Patents

Four design patents have been granted in India and the United Kingdom; two utility patents are published/registered at the Indian Patent Office and are under examination.

1	Smart Multifunctional Baby Toy Design Patent No. 418245-001 Patent Office, Government of India Granted 16 July 2024.
2	Interactive Mental Health Tracking Device Design Patent No. 441877-001 Patent Office, Government of India Granted 10 March 2025.
3	AI-Integrated Smart Braille Communication and Learning Device UK Design No. 6507178 Intellectual Property Office, United Kingdom Granted 4 March 2026.
4	Smart Poultry Farm Monitoring and Automation Device UK Design No. 6530428 Intellectual Property Office, United Kingdom Granted 11 June 2026.
5	Portable AI-Integrated Device for Early Detection and Continuous Monitoring of Glaucoma Risk Indian Utility Patent Application No. 202421081721 Published; under examination.
6	Portable AI-Integrated Terrain-Adaptive Hazard Detection Apparatus for Electrified Railway Safety Indian Utility Patent Application No. 202521096815 Registered/published; under examination.

Projects Undertaken & Mentorship Focus

- Programmable Relay Controller with Alarm Clock.
 - Multitasking with Adaptive Cruise Control System in a Car.
 - Enhancement of ECG Signal by Minimizing Baseline Drift Interference Using an FPGA-Based FIR Filter.
 - An Ensemble Classification-Based Approach for Automated Glaucoma Detection.
- Mentorship extends across deep-learning-based disease detection, smart embedded systems, IoT-enabled monitoring, assistive technologies, communication systems and interdisciplinary student innovation.

Research Impact Snapshot

Healthcare AI Glaucoma, retinal screening, lung cancer and disease prediction.	Smart Systems IoT monitoring, embedded automation and intelligent devices.	Communication UHF propagation, ionospheric disturbances and signal processing.	Assistive Technology Smart Braille, mental health tracking and safety systems.
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Journal Reviewer Contribution

Reviewer for international journals including Recent Advances in Electrical & Electronic Engineering, Advanced Engineering Forum, and Journal of Biomimetics, Biomaterials and Biomedical Engineering.

RESEARCH PUBLICATIONS & SCHOLARLY CONTRIBUTIONS

Research portfolio: 33 scholarly contributions comprising 09 international journal papers, 12 international conference papers, 10 national conference/paper presentations and 02 book chapters.

No.	Year	Publication / Scholarly Contribution
1	2011	Enhancement of ECG Signal by Minimizing Baseline Drift Interference Using FPGA-Based FIR Filter - National Conference on Emerging Trends in Engineering & Technology (NCETET 2011), Bharati Vidyapeeth College of Engineering, Kolhapur.
2	2012	Enhancement of ECG Signal by Minimizing Baseline Drift Interference Using FIR Filter - National Conference on Recent Advances in Engineering, Sanjeevan Engineering & Technology Institute.
3	2012	ECG Baseline Drift Interference Minimization Using FIR Filter - International Conference on Electronics and Communication Engineering (ICECE 2012), IRNet, Bhubaneswar.
4	2013	Stability Enhancement of Power System Using FACTS Controller - National Conference on Recent Advances in Science, Engineering and Management, DMGI, Kagal.
5	2012	Emerging Technologies for Sustainable Development - Research Abstract - National Conference organized by Department of Technology, Shivaji University, Kolhapur.
6	2013	Analysis of Floating Point Fused Multiply-Add with Reduced Power - NCETET 2013, Bharati Vidyapeeth College of Engineering, Kolhapur.
7	2013	FPGA-Based FIR Filter Design for Enhancement of ECG Signal by Minimizing Baseline Drift Interference - International Journal of Current Engineering and Technology (IJCET).
8	2015	A Systematic Approach to Devanagari Character Recognition Method - International Journal of Engineering Science and Research Technology (IJESRT).
9	2018	Glaucoma Detection Techniques Using OCT and Fundus Images: A Review - National Conference on Recent Trends in Engineering & Technology, KBP College of Engineering, Satara.
10	2018	Use of Electronic Voting Machine in Indian Elections - National Seminar on Indian Democracy and Its Challenges.
11	2020	Glaucoma Disease: An Insight View - Aut Aut Research Journal, Vol. XI, Issue XI.
12	2021	Classification-Based Automated Glaucoma Detection Using Retinal Fundus Images - GIS Science Journal, Vol. 8, Issue 5.
13	2022	Insights into Fundus Images to Identify Glaucoma Using Convolutional Neural Network - Springer - 3rd International Conference on Image Processing and Capsule Networks (ICIPCN 2022), Bangkok.
14	2022	Automated Glaucoma Classification Based on Combined Features Rule Formation - IEEE 3rd International Conference for Emerging Technology (INCET 2022), Belagavi.
15	2022	Combined Features-Based Automated Classification Approach for Glaucoma Diagnosis - 3rd National Conference on Recent Trends in Engineering & Technology, Satara.
16	2023	An Ensemble Classification Approach for Early Glaucoma Disease Detection - 13th India-Japan Science and Technology Conclave - ICFAST 2023, Shivaji University, Kolhapur.
17	2024	An Ensemble-Based Machine Learning Classification for Automated Glaucoma Detection - Advances in Distributed Computing and Artificial Intelligence Journal (ADCAIJ) - Scopus and Web of Science indexed.

RESEARCH PUBLICATIONS & SCHOLARLY CONTRIBUTIONS - CONTINUED

Chronological research portfolio - entries 18 to 33 of 33.

No.	Year	Publication / Scholarly Contribution
18	2025	Convolutional Neural Network-Based Sugarcane Leaf Disease Identification - Second International Conference on Emerging Trends in Electrical Machines, Power and Energy Systems (EMPOWER 2025), SRM Institute of Science and Technology.
19	2025	Deep Lungs: Revolutionizing Cancer Detection with Neural Networks - National-Level Technical Paper Presentation organized by TKIET and RIT in association with IETE, Kolhapur.
20	2025	Smart Flood Monitoring and Mitigation Using Embedded Systems: A Proactive Approach to Disaster Management - National-Level Technical Paper Presentation organized by TKIET and RIT in association with IETE, Kolhapur.
21	2025	Fault Detection in Machinery Parts Using Deep Learning - AICTE-Sponsored International Conference on Advancement in Engineering & Science: Recent Trends & Applications, KBP College of Engineering, Satara.
22	2025	Deep Lungs: Revolutionizing Cancer Detection with Neural Networks - Journal of Advancement in Electronics Signal Processing, Vol. 2, Issue 2.
23	2025	Smart Flood Monitoring and Mitigation Using Embedded Systems: A Proactive Approach to Disaster Management - Research & Review: Electronics and Communication Engineering, Vol. 2, Issue 2.
24	2025	Leveraging Bi-LSTM and Attention Mechanism for Symptom-Based Disease Forecasting - International Conference on Integrated Research and Sustainable Development (ICIRSD 2025), AMGOI.
25	2025	Machine Learning Approaches for Cardiovascular Disease Risk Prediction in the Post-COVID-19 Vaccination Era: A Systematic Review - International Conference on Integrated Research and Sustainable Development (ICIRSD 2025), AMGOI.
26	2025	Integrated Smart Braille System for the Visually Impaired: A Systematic Review and Proposed Framework - International Conference on Integrated Research and Sustainable Development (ICIRSD 2025), AMGOI.
27	2025	Machine Learning-Based Boiler Health Monitoring System Using IoT - International Conference on Integrated Research and Sustainable Development (ICIRSD 2025), AMGOI.
28	2025	Sensing Ionospheric Disturbances in Communication Systems Using UHF Electromagnetic Propagation Models - National Journal of Antennas and Propagation, Vol. 7, No. 2 - Scopus indexed.
29	2026	Ensemble-Based Robust Framework for Disease Prediction and Treatment Recommendation - Interdisciplinary International E-Conference on Innovation, Sustainability and Global Development, Government First Grade College, Hukkeri.
30	2026	IoT-Enabled Real-Time Smart Machine Monitoring System - International Journal for Multidisciplinary Research, Vol. 8, Issue 3.
31	2026	Ensemble-Based Robust Framework for Disease Prediction and Treatment Recommendation - Royal International Global Journal of Advance and Applied Research, Vol. 3, Issue 5(VI).
32	2026	Fault Detection in Machinery Parts Using Deep Learning - Book chapter in Advancement in Engineering and Science: Recent Trends and Applications, 1st Ed., CRC Press / Taylor & Francis, London.
33	2026	Mobile Robotic Platform for Multi-Disease Retinal Screening: A Comprehensive Review - Proceedings of the Second SGS Initiatives Conference, Sustainable Global Societies Initiative, Vol. 1, Issue 7.

FACULTY DEVELOPMENT, KNOWLEDGE TRANSFER & PROFESSIONAL ENGAGEMENT

Participated in 37 workshops, seminars, STTPs and FDPs covering core electronics, VLSI, embedded systems, artificial intelligence, machine learning, computer vision, OBE/NBA, research methodology and digital teaching practices.

Selected Faculty Development & Training Programmes

Solar Photovoltaics: Fundamentals, Technologies and Applications Two-week ISTE workshop, IIT Bombay - Teaching Assistant / System Administrator.	eSim Teaching Learning Centre ICT workshop, IIT Bombay.
Database Management Two-week ISTE workshop, IIT Kharagpur - Teaching Assistant / System Administrator.	Python 3.4.3 One-week FDP in association with Spoken Tutorial, IIT Bombay.
Analog Electronics Two-week ISTE workshop, IIT Kharagpur under MHRD, Government of India.	Outcome-Based Education and NBA Accreditation Faculty awareness programme, Sinhgad Institute of Technology and Science, Pune.
Recent Trends in VLSI & Embedded Systems National Seminar, RIT Rajaramnagar.	Research, Technology Trends in Digital Future and Media Responsibility Four-day webinar series, Dr. Vithalrao Vikhe Patil College of Engineering.
Advances in Signal Processing Using VLSI One-week ISTE-approved STTP, KIT College of Engineering, Kolhapur.	NBA Norms and Preparation of SAR - Criteria 1 to 9 One-week FDP, RIT, sponsored by MSBTE.
MSP430 - 16-bit Microcontroller Two-day workshop, Bharati Vidyapeeth College of Engineering, Kolhapur.	Emerging Trends in Deep Learning and Its Applications Two-week AICTE AQIS FDP, Dr. D. Y. Patil Institute of Technology, Pune.
Spoken Tutorial DST-PURSE-sponsored workshop, Department of Technology, Shivaji University.	Machine Learning and Its Applications One-week FDP sponsored by TEQIP-III / DBATU.
Applications in Engineering Based on MATLAB One-week FDP, Sanjeevan Engineering & Technology Institute.	Outcome-Based Education and NBA Five-day FDP, KBP College of Engineering, Satara.
Recent Trends in Advanced Communication and Embedded Systems One-week ISTE-approved STTP, Bharati Vidyapeeth College of Engineering.	Research Trends in AI and Machine Learning National webinar, Dr. Vithalrao Vikhe Patil College of Engineering.
CMOS, Mixed Signal and RF VLSI Design Two-week ISTE STTP, IIT Kharagpur under MHRD.	Computer Vision: Past, Present and Future AICTE ATAL Academy FDP, Pune Institute of Computer Technology.

Resource Person, Technology Transfer & Knowledge Sharing

- Served as resource person for an FDP on Recent Trends in Mechanical Engineering at Ashokrao Mane Polytechnic.
- Served as resource person for an ISTE-approved STTP on Scilab and OpenCV Applications in Image Processing at Dr. Daulatrao Aher College of Engineering, Karad.
- Contributed to Moodle server installation and maintenance at Shripatrao Chougule Arts and Science College, Kotoli.
- Delivered 20+ guest lectures on engineering admissions, career opportunities, personality development, electronics engineering, OBE, research methodology, sensors and transducers, and network analysis.

INSTITUTIONAL CONTRIBUTIONS, PUBLICATIONS & PROFESSIONAL PROFILE

Selected Institutional Contributions

Ashokrao Mane Group of Institutions	Head of E&TC Engineering; Public Relations Officer; Social Club Coordinator; Admission FC Officer; member of IIC, R&D and III Cell; member secretary of student and faculty grievance committees; ETSA coordinator.
Y. D. Mane Institute of Technology	Initiated ITI establishment under the AICTE Spare Capacity Scheme; established YDMIT Techno-Centre; led counselling programmes and academic/personality development activities.
Bharati Vidyapeeth College of Engineering	Head of Publicity Committee; NIRF co-coordinator; editor of annual newsletter “Brainwave”; ETSA staff coordinator; Bharati-YIN staff coordinator.
Dhananjay Mahadik Group of Institutions	Head of Publicity Committee; co-editor of national conference proceedings; Science Day quiz judge; ACES coordinator; guest lecture committee coordinator.

Professional Memberships

- Life Member, Indian Society for Technical Education (ISTE) - LM 89471.
- Life Member, International Institute of Organized Research (I2OR) - I2OR/2026/01862.
- Member, International Association of Engineers (IAENG) - Membership No. 190207.
- Member, Engineers Forum, Kolhapur.

Books, Translation & Media Writing

1	Bharatratna Sir M. Vishvesvaraya Marathi book, Raj Prakashan, Kolhapur ISBN 978-81-922225-3-0.
2	Sahakar Chintan Marathi publication - Co-Editor, Raj Prakashan, Kolhapur.
3	Rajarshi Shahu Maharaj: A Concise Biography English translation of the Marathi biography ISBN 978-93-5906-779-7.

Authored 45+ newspaper articles on education, technology, careers and social issues in Maharashtra Times, Sakal, Lokmat, Tarun Bharat and Punyanagari.

Social & Organisational Roles

Secretary Late Sou. Housabai Pawar Charitable Trust, Kolhapur.	Director Raj Academy, Kolhapur.
Director Raj Prakashan, Kolhapur.	Director Rajarshi Shahu Adhyasan, Kolhapur.

Personal & Contact Details

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