

Dr. Anshul Pareek

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Professional Summary

Seasoned academician with 20+ years of teaching and research experience in Electronics & Communication, Artificial Intelligence, Machine Learning, and Deep Learning. Adept at fostering academic excellence, promoting interdisciplinary research, and facilitating effective learning environments. Proven track record in research with numerous SCOPUS-indexed publications, filed patents, and book authorship. A committed mentor and institutional leader significantly contributing to IEEE RAS, IIC, and NBA accreditation efforts. Actively, mentoring students in startup initiatives under the Ministry of Education's Innovation Cell (MIC), supporting innovation and entrepreneurship development.

Areas of Expertise

- Digital and Analog Communication Systems
- Artificial Intelligence and Deep Learning Algorithms
- Embedded Systems Design and Simulation
- VLSI Design and Signal Processing
- Human-Robot Interaction and Computer Vision

Academic Experience

Total Teaching Experience: Over 20 Years

- Assistant Professor | Maharaja Surajmal Institute of Technology, New Delhi | Dec 2009 – Present
- Lecturer | KIIT, Gurgaon | Sep 2008 – Dec 2009
- Lecturer | Suresh Gyan Vihar University, Jaipur | Jul 2004 – Jun 2008

Education

- **Ph.D.** in Human-Robot Interfacing – G.D. Goenka University, 2022
- **M.Tech** in Digital Communications – Rajasthan Technical University, 2012 | 64%
- **B.E.** in Electronics & Communication – Mody College of Engineering, 2004 | 69%
- **Class XII** (CBSE) – St. Angela Sophia School, Jaipur, 1999 | 72%
- **Class X** (RBSE) – St. Angela Sophia School, Jaipur, 1997 | 73%

Technical Skills

- **Languages:** Python, C, C++, VHDL, Assembly (8085/8086/8051)
- **Platforms/Tools:** OpenCV, Cadence, PROTEL, PSPICE, MATLAB
- **Specialized Areas:** AI/ML Algorithms, Open CV

Journal Papers Published

1. **Breast Cancer Detection Techniques using Medical Image Processing**
International Journal of Multidisciplinary Education and Research, 2017
2. **Robust and Accurate Human Tracking Algorithm for Occlusion and Out-of-Plane Rotation**
IJITEE, Scopus, 2019
3. **A Hybrid SURF-Based Tracking Algorithm with Online Template Generation**
IJITEE, Scopus, 2019
4. **Credit Risk Analysis using Machine Learning**
Zeichen Journal, Google Scholar, 2020
5. **Re-projected SURF Features Based Mean-Shift Algorithm for Visual Tracking**
Procedia Computer Science, Scopus, 2020
6. **A Velocity Level Path Planning Approach for Mobile Robot**
Satyam Journal, 2020–21
7. **Vision-Based Human Tracking: An Overview**
NeuroQuantology, Scopus, 2022
8. **Covid-19 Radiographic Image Detector using CNN**
International Journal of Food and Nutrition Sciences (IJFNS), UGC, 2022
9. **Content-Based Movie Recommendation System**
IJFNS, UGC, 2022
10. **Analysis of Privacy Preserving Methods in 4G and 5G Networks**
IJFNS, UGC, 2022
11. **IoT-Based Weather Monitoring: A Survey**
GIS Science Journal, Google Scholar, 2022
12. **DNA Operations Based on Chaotic Theory**
GIS Science Journal, Google Scholar, 2022

13. **Content-Based Movie Recommendation with Removal of Low Rated Movies**
Zeichen Journal, Google Scholar, 2022
14. **Machine Learning Algorithm for Vision-Based Tracking**
IJFNS, UGC, 2022
15. **Automated Capuchinbird Call Detection using CNN**
Eur. Chem. Bull., Google Scholar, 2023
16. **General Purpose AI System with Graphical User Interface**
Technovation Satyam, 2023
17. **SMART CCTV CAMERA**
Satyam Vol. 11, 2023
18. **Telecom Customer Churn Prediction Model using ML**
Journal of Information & Optimization Sciences (JIOS), ESCI, 2024
19. **IoT-Based Water Quality Monitoring for Aquaculture**
Proceedings on Engineering Sciences, Scopus, 2025

Book Chapters Published

1. **A Solution to Pose Change Challenge: Real-Time, Robust, and Adaptive Human Tracking Systems Using SURF**
Book: Artificial Intelligence for Smart Healthcare (Springer, Scopus), 2023

Patents Filed

1. **AI/ML/IoT-Based System for Monitoring Rainy Diseases**
Application No. 202421076136 (Filed in 2024)
2. **Accident Prevention System for Vehicles using Deep Learning**
Patent ID: 202411037276 (Filed in 2024)
3. **A System for Analysis of Critical Crisis Management Factors using Deep Learning**
File No. 202311003696 (Filed in 2023)
4. **Smart Healthcare Monitoring System using Internet of Things (IoT)**
File No. 202141030807 (Filed in 2022)

Published Conference Papers

1. **Symbol Detection Algorithm for MIMO Channels: V-BLAST**
Advances in VLSI, Embedded & Communication, AlFalah College – 2012
2. **Evaluation of Feature Detector-Descriptor Using RANSAC for Visual Tracking**
International Conference on Sustainable Computing in Science, Technology and Management (SUSCOM), Amity University, Jaipur – 2019

3. **Re-projected SURF Features Based Mean-Shift Algorithm for Visual Tracking**
Procedia Computer Science, Scopus Indexed – 2020
4. **A Robust SURF-Based Online Human Tracking Algorithm Using Adaptive Object Model**
International Conference on Artificial Intelligence and Applications, Springer, Scopus – 2021
5. **SURF-Based Algorithm to Deal with Pose Change Challenge in Human Tracking**
ICCIS, NIT Delhi – 2021
6. **Vision-Based Human Tracking in Real-Time Systems – A Survey**
ICACI 2022, SIMATS – 2022
7. **Digital Image Watermarking: Potential Issues and Its Possible Solution**
ICCCS 2022, ITS Greater Noida – 2022
8. **Enhanced Radar-Based Human Suspicious Activity Classification using Transfer Learning**
International Conference on Emerging Technology and Sustainable Solutions, Chitkara University, Punjab – 2023 (Scopus Indexed)
9. **The Vigilant Lens: DL-Powered Real-Time Traffic Accident Detection in Video Surveillance**
International Conference on Emerging Technology and Sustainable Solutions, Chitkara University, Punjab – 2023 (Scopus Indexed)
10. **Telecom Customer Churn Prediction using ML Techniques**
REPSI 2024, BVPCOE – 2024
11. **IoT-Based Water Quality Monitoring System for Aquaculture**
ICAIA 2024, MSIT – 2024

Books Authored

- 'V-BLAST/MAP with ZF and LLSE Linear Receiver' – LAP Publishing
- 'IoT Based Health Monitoring System' – Co-authored, March 2022

Certifications & FDPs (Selected)

Successfully completed Online Innovation Ambassador Training

by MHRD Innovation Cell (Govt. of India) | Issued: Oct 2022

- Received certification as Innovation Ambassador under the Institution's Innovation Council (IIC), IIC ID: IC201810276
- Participated in foundation-level training focused on fostering innovation and entrepreneurship in higher education institutions.

Certified Innovation Ambassador – Foundation & Advanced Level

by MHRD Innovation Cell, Govt. of India

- Recognized as an Innovation Ambassador under the Institution's Innovation Council (IIC ID: IC201810276)
- Successfully completed Foundation (Oct 2022) and Advanced Level (Feb 2023) training programs aimed at promoting innovation and entrepreneurship in higher education
- Participated in over 25 FDPs and workshops on AI, ML, IoT, signal processing, and pedagogy.
- Key certifications include: NITTTR, 'AI for All' (Coursera), 'Deep Learning' (Brain Mentors), 'IPR' (NPTEL).

Leadership & Institutional Roles

- **Innovation & Entrepreneurship**
 - Appointed *Innovation Ambassador* by the Ministry of Education, Government of India (Foundation & Advanced Level Certified)
 - Actively mentoring students in startup initiatives under the Ministry of Education's Innovation Cell (MIC)
 - Served as *Content Coordinator* of the Institution's Innovation Council (IIC), MSIT
 - Played a pivotal role in promoting innovation-driven activities as a member of the IIC core team
- **Professional Bodies & Leadership**
 - *Chapter Chair*, IEEE Robotics and Automation Society (IEEE RAS), MSIT – leading professional and technical engagements
 - Coordinated and organized events, workshops, and technical talks under IEEE banner
- **Quality Assurance & Audit**
 - *Qualified Internal Auditor* for ISO – contributed to internal audits, documentation, and compliance
 - *Core Team Member*, National Board of Accreditation (NBA) – involved in departmental preparations and documentation for accreditation processes
 - *ISO Team Member* for quality improvement initiatives
- **Academic & Student Engagement**
 - Guided students in research and publication based on their major and minor projects
 - Held roles of *Proctor* and *Lab In-Charge* in the CSE Department, ensuring discipline and smooth lab operations
 - Member, *Central Library Committee* representing the Electronics and Communication Department

- Actively contributed to institutional culture as a team member of the *College Magazine*, *Tech Fest*, and *Cultural Fest* committees
- **Technical Expertise**
- Subject-matter expert in **Analog and Digital Electronics**, contributing to curriculum development and student mentoring.

Professional Memberships

- IEEE
- IEEE Robotics and Automation Society (RAS)
- Institution Innovation Council (IIC)

Personal Details

- Date of Birth: 15th August 1981
- Gender: Female
- Marital Status: Married