Anubha Parashar

Analytics & AI Engineer · Biometrics | Computer Vision | GenAI | LLM | NLP| DL| ML | Artificial Intelligence

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Proficient in advanced Deep Learning and Machine Learning algorithms with focus in LLM and Computer Vision and active involvement in state-of-the-art research.

Experience

1. Pearce Services

Gurugram, India

Analytical & AI Engineer — *Jan. 2025 – Present*

- **Brute Force Wind Technician Scheduling Optimization** *(Jan–Jul 2025):* Benchmarked brute-force engine vs. ACO; modelled availability, duration & skill constraints; quantified combinatorial complexity.
- **Drone-Based Solar Panel Defect Detection** *(Feb 2025–Present):* Trained YOLO models on 10,000+ RGB/thermal images; 0.92 mAP, 0.88 recall; Jetson edge deployment — 70% reduction in manual survey time.
- **Offline Chatbot – Mobile Edge AI** *(Mar 2025–Present):* Embedding + FAISS semantic retrieval (DeepSeek); on-device LLM inference; React Native integration — 50% fewer updates, 30% accuracy gain.
- **Technician Backfill Lifecycle Automation** *(Apr–Jul 2025):* State-aware backfill logic across Week 1–3 cycles; automated PTO reassignment; cross-file CSV/Excel validation; prevented assignment leakage.
- **Hybrid ACO Scheduling Algorithm** *(Apr–Jul 2025):* ACO with heuristic cost functions — 25% travel reduction, 30% feasibility boost, projecting $200K annual savings.
- **Wind Speed Forecasting POC** *(May 2025):* LSTM/GRU on 50,000+ turbine records; 0.4 m/s MAE; identified 8-hour maintenance windows (threshold <20.02 m/s).
- **Azure Cloud Adaptation – Wind Scheduling Pipeline** *(Jun 2025):* Refactored offline preprocessing to Azure Blob storage; built `generate_svc_model_input_technician_func`; validated cloud deployment.
- **Inventory Data Cleaning – Fuzzy Logic Automation** *(Jul 2025–Present):* Fuzzy matching across Salesforce/Netsuite; standardised naming; automated Excel pipelines; improved enterprise data integrity.
- **Offline Key Detection – Mobile Edge AI** *(Feb 2026):* Custom YOLO model; quantised to TFLite/ONNX; real-time mobile inference pipeline; robust under variable lighting.
- **AI-Integrated Survey123 on ArcGIS Pro** *(Feb 2026):* Model pipeline for Survey123 field data; GIS-compatible output; automated shapefile generation; CRS alignment.
- **GIS-Based Operational Visualisation Platform** *(Feb 2026–Ongoing):* AI detection outputs (bounding boxes, coordinates) integrated into ArcGIS layers; real-time spatial analytics for field ops.
- **AI-Assisted Pole Design Validation** *(Feb 2026–Upcoming):* Confidence-based engine automating 13 manual checks; multi-source GIS reconciliation (Portal, OnPath, AEP, Frontier DB); human-in-the-loop control.

2. Invincible Ocean

Gurugram, India

Research Scientist – Artificial Intelligence & Metaverse — *Apr. 2024 – Dec. 2024*

- **Vehicle RC Data Chatbot:** Fine-tuned an LLM on vehicle RC data; reduced manual search time by 70% with instant natural-language access to vehicle records.
- **Virtual Try-On (VITON) System:** Deep learning platform overlaying clothing on user photos achieving 95% user satisfaction rate.
- **Text Recognition & OCR System:** Tesseract, PaddleOCR and Paddle NLP pipeline at 98% accuracy; Label Studio backend, Dockerized APIs, Gemini assistant for information extraction.

3. Manipal University Jaipur

Jaipur, India

Sr. Assistant Professor – Computer Science & Engineering — *Jul. 2016 – Apr. 2024*

- Taught and designed curriculum for AI, Deep Learning, Computer Vision, NLP, IoT, Image Processing, and Humanoid Robotics; supervised 15+ M.Tech theses.
- Conducted and published research; served as reviewer for IEEE and Springer conferences and journals; presented at international seminars and workshops.
- Collaborated with industry partners to apply research in real-world contexts; served as Warden, Alumni Coordinator, IoT Lab Coordinator, and Placement Co-coordinator.
- **Excellent Young Researcher Award 2022** – Manipal University Jaipur.

4. Doctoral Research – Manipal University Jaipur

Jaipur, India

Researcher @ Biometrics Lab (Profs. Weiping Ding & Rajveer Shekhawat) — *Jan. 2018 – Apr. 2023*

- **Robust Gait Recognition Using Deep Learning:** Designed a universal deep learning pipeline to identify individuals from walking style under covariate conditions (clothing, occlusion, view angle, adversarial changes), handling multiple covariates in a single pipeline.
- **Gait De-Identification (FER, University of Zagreb, Sep. 2018 – Dec. 2019):** Designed a pipeline modifying face geometry and texture to preserve dataset privacy without compromising naturalness, in collaboration with Prof. Slobodan Ribarić.

5. Sconad Communication

Mumbai, India

Level 3 Research Associate — *Jul. 2013 – Jul. 2014*

- Used Python clustering methods to identify model underperformance areas; owned improvements increasing profit by 4%.
- Identified procedural improvements through customer data analysis, raising nationwide retention programme profitability by 8%.
- Developed and owned retention programme reporting in Python, SQL and Excel, saving 60 hours of labour per month.

6. ZMQ Technologies

Gurugram, India

Intern – Android & J2ME App Development — *Jan. 2013 – Jul. 2013*

- Designed and developed mobile applications using Android and J2ME platform with Oracle as backend.
- Completed eight major projects working closely with an agile development team to develop, test and maintain production-ready apps.

7. Essilor India Private Limited

New Delhi, India

Intern – Web Development — *Jun. 2012 – Jul. 2012*

- Web development, video editing and content development for the company's digital presence.

Skills

Languages	C, C++, JAVA (J2SE, J2EE, J2ME), PHP, Python, JAVA SCRIPT, HTML, XML, CSS.
Database	PostgreSQL, MS-Access, Oracle, MySQL, MongoDB.
Webserver	Tomcat, Web Logic, Apache, IIS, Google Web Server.
Cloud	ThingSpeak, Xively, IBM bluemix, Microsoft Azure Cloud, Amazon Web Service, GCP.
Data Manipulation	SQL, NoSQL, CSV, JSON, PySpark.
Statistical Techniques	Regression, Classification, Clustering, LLM, Agents, Dimensionality Reduction, RAGs, NLP, Computer Vision.
Software Tools	MATLAB, GitHub, Latex, Weka, OpenCV, DLIB, Anaconda, Tensorflow, Spyder, Jupyter Notebook, RemoteXY, Webots, OpenSim, Choregraphe, NetBeans, Eclipse, Android, Django, MongoDB, Firebase, RationalRose, StarUML, Creative fly mod, Microsoft Visio, Selenium, Node.js, Arduino Studio, Blender, Node.js, Photoshop, Flash.
Deployment & DevOps	Flask, Docker, CI/CD.
Frameworks/Libraries	LangChain, Agents, Llama, ChatGPT, TensorFlow, PyTorch, Keras, Scikit-learn, Caffe, MXNet, Theano, Torch, Caffe2, H2O, XGBoost, LightGBM, OpenCV, NLTK (Natural Language Toolkit), Gensim, SpaCy, Pandas, NumPy, SciPy, Pandas, NumPy, Matplotlib, Seaborn, Plotly, Statsmodels, Prophet, AutoML libraries like AutoKeras, H2O.ai, TPOT.
Hardware	Jetson Nano, Arduino, raspberry pi, Intel Edison, 8051, STM32F401 NUCLEO, AVR XMEGA, ATMEL SAM4L Xplained Pro, AVR Dragon, TIVA C SERIES TM 4C123G Launch Pad, FRDM – K64F NXP, Lolin NodeMCU, 8086.
Operating System	Windows, Linux (Red Hat, Ubuntu), UNIX, DOS, Raspbian.
Subjects	Theory of Computation, Data Structure, Algorithm, Computer Networks, Operating System, DBMS, IoT, Software Engineering.
Research Interest	Deep Learning, Computer Vision, Machine Learning, Artificial Intelligence, Neural Network, Internet of Things, Data Science, Robotics, Bipedal Locomotion, Biometrics Gait, Humanoid Robotics (locomotion & push recovery), Image processing, Natural Language Processing, Brain Computer Interface, Human Computer Interaction.

Education

Manipal University Jaipur *Jaipur , India*

Doctor of Philosophy *Jan. 2018 – Apr. 2023*

- PhD in Computer Science and Engineering with major in Artificial Intelligence with thesis title “Robust Gait Recognition System Using Deep Learning to Handle Covariates”.

Maharshi Dayanand University *Rohtak, India*

Master of Technology *Aug. 2014 – Jul. 2016*

- Masters in Computer Science and Engineering with major in Artificial Intelligence with thesis title “Classification of GAIT data using various machine learning techniques to categorize human locomotion”.

Maharshi Dayanand University *Rohtak, India*

Bachelor of Technology *Aug. 2009 – Jul. 2013*

- Bachelors in Computer Science and Engineering with thesis title “M-Training Toolkit on Polio/Routine Immunization for CMCs in CGPP”.

Model School *Rohtak, India*

12th – CBSE *Mar. 2008 – Jun. 2009*

St. Georges Grammar School *Hyderabad, India*

10th – ICSE *Mar. 2006 – Jun. 2007*

Patent

1. A Covariate-based Gait Recognition System and Method for Edge Analytics Using Optimized Deep Learning Pipeline *Patent No: 202111034240*

Indian patent, Status: granted *29 Jul. 2021*

2. A System and Method For Tracking of Drug Product and Expiry Date Alert of Pharmaceuticals using Deep Learning. *Patent No: 202331058909*

Indian patent, Status: Patent-Pending *2 Sep. 2023*

3. Content Based Video Ranking. *Patent No: 202011053220*

Indian patent, Status: published *8 Jan. 2021*

4. Inexpensive Nail-fold Capillaroscopy for Early Detection of Cardio-Metabolic Disease *Patent No: 2021100922*

Australian patent, Status: granted *18 Feb. 2021*

5. Content Based Video Ranking. *Patent No: 2021105538*

Indian patent, Status: granted *15 Aug. 2021*

6. Sign Language Translator *Patent No: 202110309*

South African patent, Status: granted *13 Dec. 2021*

Journals

1. **Anubha Parashar**, Rajveer Singh Shekhawat et al., Deep learning pipelines for recognition of gait biometrics with covariates: a comprehensive review, Artificial Intelligence Review (2023). https://doi.org/10.1007/s10462-022-10365-4 [SCI- Q1 IF 9.588].
2. **Anubha Parashar**, Apoorva Parashar, Mohammad Shabaz, Deepak Gupta, Aditya Kumar Sahu, Muhammad Attique Khan, Advancements in artificial intelligence for biometrics: A deep dive into model-based gait recognition techniques, Engineering Applications of Artificial Intelligence, Volume 130, 2024, 107712, ISSN 0952-1976, https://doi.org/10.1016/j.engappai.2023.107712. [SCI- Q1 IF 8.34].
3. **Anubha Parashar**, Rajveer Singh Shekhawat, Real-time Gait Biometrics for Surveillance Applications: A Review, Image and Vision Computing, https://doi.org/10.1016/j.imavis.2023.104784 [SCI- Q1 IF 4.7].
4. **Anubha Parashar**, Apoorva Parashar, Weiping Ding, Mohammad Shabaz, Imad Rida, Data preprocessing and feature selection techniques in gait recognition: A comparative study of machine learning and deep learning approaches, Pattern Recognition Letters, Volume 172, 2023, Pages 65-73, ISSN 0167-8655, https://doi.org/10.1016/j.patrec.2023.05.021. [SCI- Q1 IF 5.1].
5. **Anubha Parashar**, Rajveer Singh Shekhawat, Weiping Ding, Imad Rida, Intra-class variations with deep learning-based gait analysis: A comprehensive survey of covariates and methods, Neurocomputing, Volume 505, 2022, 315-338, https://doi.org/10.1016/j.neucom.2022.07.002 [SCI- Q1 IF 5.779].
6. **Anubha Parashar**, Apoorva Parashar, Imad Rida, Journey into gait biometrics: Integrating deep learning for enhanced pattern recognition, Digital Signal Processing, https://doi.org/10.1016/j.dsp.2024.104393, Volume 147, 2024, 104393, ISSN 1051-2004. [SCI Q2 IF 2.9].
7. Aurangzeb, K., Javeed, K., Alhussein, M., Rida, I., Haider, S. I., & **Parashar, A.** (2024). Deep Learning Approach for Hand Gesture Recognition: Applications in Deaf Communication and Healthcare. Computers, Materials & Continua, 78(1). [Q1 SCIE- IF 3.6].
8. Apoorva Parashar , Rahul Rishi , **Anubha Parashar**, Imad Rida, Medical imaging in rheumatoid arthritis: A review on deep learning approach, Open Life Sciences, Volume 18, Issue 1, 2023, https://doi.org/10.1515/biol-2022-0611 [SCI- Q2 IF 2.2].
9. Vidyadhar Jinnappa Aski, Vijaypal Singh Dhaka, **Anubha Parashar**, Sunil kumar, Imad Rida, Internet of Things in healthcare: A survey on protocol standards, enabling technologies, WBAN architectures and open issues, Physical Communication, 2023, 102103, ISSN 1874-4907, https://doi.org/10.1016/j.phycom.2023.102103 [SCI-Q2 IF 2.2].
10. **Anubha Parashar**, Rajveer Singh Shekhawat, Protection of gait dataset for preserving its privacy in deep learning pipeline, IET Biometrics 11(6), 557–569 (2022). https://doi.org/10.1049/bme2.12093 [SCI- Q1 IF 2.716].
11. **Anubha Parashar**, Rajveer Singh Shekhawat. A robust covariate-invariant gait recognition based on pose features, IET Biometrics 11.6 (2022): 601-613, https://doi.org/10.1049/bme2.12103 [SCI- Q1 IF 2.716].
12. **A Parashar**, A Parashar, Push Recovery for Humanoid Robot in Dynamic Environment and Classifying the Data Using K-Mean, International Journal of Interactive Multimedia and Artificial Intelligence, Vol. 4, (pp 29-34), ISSN 1989 – 1660, DOI: 10.9781/IJIMAI.2016.425 [SCIE- IF 3.6].
13. VS Bhaskar, AK Singh, **A Parasha**r, M Sharma, Business and Social Behaviour Intelligence Analysis Using PSO, in International Journal of Interactive Multimedia and Artificial Intelligence, Vol.2 (6), Page No. 69-74, ISSN 1989 - 1660, DOI: 10.9781/ijimai.2014.268 [SCIE- IF 3.6].
14. **Anubha Parashar**, Machine Learning Application to Improve COCOMO Model using Neural Networks, International Journal of Information Technology and Computer Science, Volume 10, Number 3, ISSN: 2074-9007, DOI: 10.5815/ijitcs.2018.03.05 [IF 0.716].
15. **Anubha Parashar**, Selecting the COTS Components Using Ad-hoc Approach, International Journal of Interactive Multimedia and Artificial Intelligence, Volume 7, Number 5. ISSN : 2076-1449, DOI: 10.5815/ijwmt.2017.05.03.
16. Pranav Gupta, Vaibhav Singh, **Anubha Parashar**, Smart Autonomous Vehicle Using End to End Learning, Journal of Innovation in Computer Science and Engineering, Guru Nanak Publications ISSN: 2278-0947, Volume 9, Issue 2.

Conferences

1. 5th International Conference on Bio-engineering for Smart Technologies

Paris, France

IEEE *7th-9th Jun. 2023*

Anubha Parashar, Apoorva Parashar, Imad Rida, Vidyadhar Aski, et al. "Deep Learning-based Framework for Accurate Clothing Attribute Recognition and Style Navigation for Gait Recognition." In International Conference on Bio-engineering for Smart Technologies, 2023.

2. 16th International Conference on Signal Image Technology & Internet-based Systems

Dijon, France

IEEE *19-21 Oct. 2022*

Parashar, Anubha, Imad Rida, Apoorva Parashar, and Vidyadhar Aski. "Protecting the Privacy of Face by De-Identification Pipeline Based on Deep Learning." In 2022 16th International Conference on Signal-Image Technology & Internet-Based Systems (SITIS), pp. 409-416. IEEE, 2022. Doi: 10.1109/SITIS57111.2022.00068.

3. Second International Conference on Innovations in Computational Intelligence and Computer Vision

Manipal University Jaipur, India

SPRINGER *05-06 Aug. 2021*

Parashar, Apoorva, **Anubha Parashar**, and Vidyadhar Aski. "Optimized Pose-Based Gait Analysis for Surveillance." In Innovations in Computational Intelligence and Computer Vision: Proceedings of ICICV 2021, pp. 615-622. Singapore: Springer Nature Singapore, 2022. https://doi.org/10.1007/978-981-19-0475-2_54

4. 5th International Conference on Intelligent Data Communication Technologies and Internet of Things

JCT College, India

Springer *27 - 28 Aug. 2021*

Aski, Vidyadhar Jinnappa, Vijaypal Singh Dhaka, Sunil Kumar, and **Anubha Parashar**. "IoT Enabled Elderly Monitoring System and the Role of Privacy Preservation Frameworks in e-health Applications." In Intelligent Data Communication Technologies and Internet of Things: Proceedings of ICICI 2021, pp. 991-1006. Singapore: Springer Nature Singapore, 2022. https://doi.org/10.1007/978-981-16-7610-9_72.

5. 8th International Conference on Innovations in Computer Science & Engineering

Guru Nanak Institute, India

Guru Nanak Publication *28 - 29 Aug. 2020*

Pranav Gupta, Vaibhav Singh, **Anubha Parashar**," Smart Autonomous Vehicle Using End to End Learning", 8th International Conference on Innovations in Computer Science & Engineering, 2020.

6. 4th International Conference On Opportunities & Challenges In Business Management

MAHE, Dubai

IEEE *25 - 26 Feb. 2020*

V. Aski, V. S. Dhaka, S. Kumar, **A. Parashar** and A. Ladagi, "A Multi-Factor Access Control and Ownership Transfer Framework for Future Generation Healthcare Systems," 2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC), Waknaghat, India, 2020, pp. 93-98, doi: 10.1109/PDGC50313.2020.9315840.

7. International Conference on Modelling, Simulation & Intelligent Computing.

BITS, Dubai

Springer *29 - 31 Jan. 2020*

Parashar, A., Parashar, A., Aski, V., & Shekhawat, R. S. (2021). Surveillance System to Provide Secured Gait Signatures in Multi-view Variations Using Deep Learning. In Advances in Machine Learning and Computational Intelligence: Proceedings of ICMLCI 2019 (pp. 247-254). Springer Singapore. https://doi.org/10.1007/978-981-15-5243-4_21

8. International Conference on Innovations in Computational Intelligence and Computer Vision

Manipal University Jaipur, India

Springer *18 - 19 Jan. 2018*

Aski, V., Dhaka, V.S., **Parashar, A.** (2021). An Attribute-Based Break-Glass Access Control Framework for Medical Emergencies. In Innovations in Computational Intelligence and Computer Vision. Advances in Intelligent Systems and Computing, vol 1189. Springer, Singapore. https://doi.org/10.1007/978-981-15-6067-5_66

9. Second International Conference on intelligent Communication and Computational Techniques

Manipal University Jaipur, India

IEEE *28 - 29 Sep. 2019*

A. Parashar, "IoT Based Automated Weather Report Generation and Prediction Using Machine Learning," 2019 2nd International Conference on Intelligent Communication and Computational Techniques (ICCT), Jaipur, India, 2019, pp. 339-344, doi: 10.1109/ICCT46177.2019.8968782.

10. 2nd International Conference on Smart IoT Systems: Innovations in Computing

Manipal University Jaipur, India

Springer, Scopus *18 - 19 Jan. 2019*

Parashar, A., Parashar, A. (2020). IoT-Based Cloud-Enabled Smart Electricity Management System. In Smart Systems and IoT: Innovations in Computing. Smart Innovation, Systems and Technologies, vol 141. Springer, Singapore. https://doi.org/10.1007/978-981-13-8406-6_71.

11. 2nd International Conference on Smart IoT Systems: Innovations in Computing *Manipal University Jaipur, India*

Springer, Scopus *18 - 19 Jan. 2019*

Parashar, A, et.al, (2020). Cloud-Assisted IoT-Enabled Smoke Monitoring System (e-Nose) Using Machine Learning Techniques. In Smart Systems and IoT: Innovations in Computing. Smart Innovation, Systems and Technologies, vol 141. Springer, Singapore. https://doi.org/10.1007/978-981-13-8406-6_70

12. 8th International Conference on Innovative Technologies *Zagreb, Croatia*

Springer *5 - 7 Sep. 2018*

A Parashar, RS Shekhawat, A Parashar, "Tracing Gesture and Extracting Gait Features to Recognize Parkinson's Disease Using Multi-layered Back Propagation Algorithm", International Conference on Innovative Technologies (pp 133-136), http://intech.info/download/%20IN_TECH_2018_Proceedings. Received Best Paper Award

13. 10th International Conference on Security of Information and Networks *Jaipur India*

ACM, Tier 3 conference *13 -15 Oct. 2018*

Anubha Parashar, Apoorva Parashar, and Somya Goyal. 2017. Identification of gait data using machine learning technique to categories human locomotion. In Proceedings of the 10th International Conference on Security of Information and Networks (SIN '17). Association for Computing Machinery, New York, NY, USA, 229–234. https://doi.org/10.1145/3136825.3136903

14. International Conference on Smart Trends for Information Technology and Computer Communications *Jaipur India*

Springer *6 -7 Aug. 2016*

Parashar, A., Goyal, D. (2016). Clustering Gait Data Using Different Machine Learning Techniques and Finding the Best Technique. In Smart Trends in Information Technology and Computer Communications. SmartCom 2016. Communications in Computer and Information Science, vol 628. Springer, Singapore. https://doi.org/10.1007/978-981-10-3433-6_51

15. International Conference on ICT for Sustainable Development *Panaji, Goa, India*

Springer *1 -2 Jul. 2016*

Parashar, A., Parashar, A., & Goyal, S. (2018). Classifying gait data using different machine learning techniques and finding the optimum technique of classification. In Information and Communication Technology for Sustainable Development: Proceedings of ICT4SD 2016, Volume 2 (pp. 305-313). https://doi.org/10.1007/978-981-10-3920-1_31.

16. Second International Conference on Information and Communication Technology for Competitive Strategies *Udaipur, India*

ACM, Scopus, WoS *4 -5 Mar. 2016*

Parashar, A., Parashar, A., Goyal, S., & Sahjalan, B. (2016, March). Push recovery for humanoid robot in dynamic environment and classifying the data using K-mean. In Proceedings of the Second International Conference on Information and Communication Technology for Competitive Strategies (pp. 1-6). https://doi.org/10.1145/2905055.2905207.

Book Chapter

1. Book Title: Cognitive Computing for Human-Robot Interaction: Principles and Practices. Book series Title: Cognitive Data Science in Sustainable Computing. **Parashar, A.**, Parashar, A., & Goyal, L. M. (2021). Optimized navigation using deep learning technique for automatic guided vehicle. In Cognitive Computing for Human-Robot Interaction (pp. 147-161), Academic Press, https://doi.org/10.1016/B978-0-323-85769-7.00002-1 Scopus Indexed.
2. Book Title: Security and Trust Issues in Internet of Things: Blockchain to the rescue. Book series Title: Internet of Everything's (IoE) : Security and Privacy Paradig. **Anubha Parashar**, Apoorva parashar, Vidyadhar Aski, Rajveer S Shekhawat, "IoT enabled Surveillance System to Provide Secured Gait Signatures Using Deep Learning ", CRC Press, Taylor & Francis Group, USA (pp - 24 pages) 1st Edition , ISBN 9781003121664, https://doi.org/10.1201/9781003121664, December 2, 2020.
3. Book Title: Autonomous driving and driver assistance system. Book series Title: Autonomous vehicle application. **Parashar, A.**, Aski, V., & Parashar, A. (2021). Automated Guided Autonomous Car Using Deep Learning and Computer Vision. In Autonomous Driving and Advanced Driver-Assistance Systems (ADAS) (pp. 219-232), CRC Press, https://www.taylorfrancis.com/chapters/edit/10.1201/9781003048381-10/automated-guided-autonomous-car-using-deep-learning-computer-vision-anubha-parashar-vidyadhar-aski-apoorva-parashar, 15 December 2021.
4. Book Title: Autonomous driving and driver assistance system. Book series Title: Autonomous vehicle application. **Parashar, A.**, Parashar, A., & Aski, V. (2021). Open-Pit Mine Autonomous Bot. In Autonomous Driving and Advanced Driver-Assistance Systems (ADAS) (pp. 485-504). CRC Press, https://www.taylorfrancis.com/chapters/edit/10.1201/9781003048381-27/open-pit-mine-autonomous-bot-apoorva-parashar-anubha-parashar-vidya

dhar-aski, 15 December 2021.

5. Book Title: Integration of WSNs into Internet of Things. Goyal, Somya, Sudhir Kumar Sharma, and **Anubha Parashar**. "Smart Agriculture Using Wireless Sensor Networks." Integration of WSNs into Internet of Things: A Security Perspective (2021): 121-134. CRC Press, 2021/6/4.
6. Book Title: Data Intensive Computing Applications for Big Data. Book series Title: Advances in Parallel Computing. **Anubha Parashar**, Apoorva Parashar. "Big Data Analysis Using Machine Learning Approach to Compute Data", Advances in Parallel Computing. IOS PRESS (pp 133 - 150) http://ebooks.iospress.nl/publication/48530, Feb 2018, Scopus Indexed.
7. Book Title: Data Intensive Computing Applications for Big Data. Book series Title: Advances in Parallel Computing. **Anubha Parashar**, Anita Shrotriya "Application of Big Data Analytics in Cloud Computing via Machine Learning", Advances in Parallel Computing. IOS PRESS (pp 236 - 366), http://ebooks.iospress.nl/volumearticle/48534, Feb 2018, Scopus Indexed.

Articles

1. **Parashar, A.**, Kumar, S., Bhaskar, V. S., & Chinia, R. (2014). Noisy Distance Measurements Using 3-D Localization with Rb-Rf Methods. arXiv preprint arXiv:1407.2125., https://doi.org/10.48550/arXiv.1407.2125.
2. Rani, M., **Parashar, A.**, Chaturvedi, J., & Malviya, A. (2014). Search Space Engine Optimize Search Using FCC_STF Algorithm in Fuzzy Co-Clustering. arXiv preprint arXiv:1407.6952., https://doi.org/10.48550/arXiv.1407.6952.
3. Chaturvedi, J., **Parashar, A.**, Manjrekar, A. A., & Bhaskar, V. S. (2014). Social and business intelligence analysis using PSO. arXiv preprint arXiv:1407.6090., https://doi.org/10.48550/arXiv.1407.6090.
4. Vaish, K., Rajesh, S. M., Pasupatheeswaran, K., **Parashar, A.**, & Chaturvedi, J. (2014). Design and Autonomous Control of the Active Adaptive Suspension System Rudra Mars Rover. arXiv preprint arXiv:1407.5197., 2022 (Q2) ESCI, IF – 2.716., https://doi.org/10.48550/arXiv.1407.5197.
5. **Parashar, A.** (2016). A proposed solution to knapsack problem using branch & bound technique. International Journal for Innovative Research in Multidisciplinary Field, 2(7), 240-246.
6. **Parashar, A.**, & Bijalwan, V. A Text to Speech Conversion Engine.

Presentation

1. Indian Society for Technical Education (ISTE) Annual Students' Convention (ASC - 2010), Presented a paper entitled, "Electronic Commerce", in ISTE's ASC-2010 organized by BVICAM, New Delhi,25 September, 2010.
2. 1st Online International Conference on Advances in Computing, Communication and Control" (ICA3C-2020), Presented a paper entitled, "Deep Learning based Surveillance System using Gait Signatures", in ICA3C-2020 organized by School of Computer Science and Applications, IIMT University, Meerut, 16th-17th June, 2020.

Grants

23-3-2018	**DST Rajasthan** , Technology Demonstration & Training Centre, Principal Investigator	*1,64,500 INR*
20-4-2017	**Manipal University Jaipur**, Grant for IoT and AI Laboratory, Principal Investigator	*20,00,000 INR*
20-4-2018	**Manipal University Jaipur**, Energy consumption, optimization for Smart Classroom using IoT, Co-PI	*45,000 INR*
4-7-2019	**Manipal University Jaipur**, Energy consumption, optimization for Smart Class using Computer Vision, PI	*45,000 INR*

Projects

1. Brute Force Wind Technician Scheduling Optimization *Pearce Services, Gurugram, India*

Analytics & AI Engineer *Jan. 2025 – Jul. 2025*

- Analysed brute-force scheduling logic to evaluate all feasible technician–job combinations under operational constraints.
- Modeled availability windows, job duration, location feasibility, and skill mapping; identified scheduling gaps and edge-case conflicts.
- Conducted performance benchmarking between brute-force and Ant Colony Optimization (ACO) approaches; quantified combinatorial growth impact ($\binom{n}{k}$ complexity).
- Designed modular scheduling engine and reduced manual validation effort in technician–job allocation.

2. Drone-Based Inspection for Solar Panel Defects

Pearce Services, Gurugram, India

Computer Vision Lead — *Feb. 2025 – Present*

- Led development of a drone-based inspection solution integrating deep learning object detection models for crack, diode failure, and hotspot identification.
- Trained on 10,000+ RGB and thermal images; achieved 0.92 mAP and 0.88 recall; optimized for edge deployment on Jetson/mobile-compatible inference.
- Improved inspection efficiency by reducing manual survey time by 70%; enabled scalable automated detection pipelines.
- Established foundation for autonomous monitoring systems with increased detection consistency and reliability.

3. Offline Chatbot Prototype (Mobile Edge AI Initiative)

Pearce Services, Gurugram, India

Edge AI Engineer — *Mar. 2025 – Present*

- Designed and built an offline retrieval-based chatbot for field technicians using embedding + vector search architecture (DeepSeek + FAISS).
- Implemented lightweight on-device semantic indexing pipeline; evaluated feasibility of LLM-based retrieval in low-connectivity mobile environments.
- Conducted experiments with DeepSeek models for on-device inference; identified latency, memory footprint, and model performance constraints.
- Initiated integration of optimised retrieval system into React Native mobile application; reduced dependency on centralised cloud knowledge systems.

4. Technician Backfill Lifecycle Automation & Cross-Week Schedule Validation

Pearce Services, Gurugram, India

Automation Engineer — *Apr. 2025 – Jul. 2025*

- Implemented state-aware backfill lifecycle logic across Week 1–3 scheduling cycles; automated reassignment for technicians returning from PTO.
- Designed validation checks between break-time schedules, model outputs, and returning technician tables; built cross-file consistency validation across CSV and Excel artifacts.
- Implemented lead-status categorisation logic and multi-source data reconciliation (4-file integration).
- Prevented assignment leakage across PTO cycles; ensured schedule continuity and operational stability.

5. Hybrid Scheduling Algorithm with ACO (Cost Optimisation Initiative)

Pearce Services, Gurugram, India

Optimisation Algorithm Engineer — *Apr. 2025 – Jul. 2025*

- Designed and implemented a custom scheduling algorithm integrating Ant Colony Optimisation (ACO) with Nesterov's accelerated gradient for cost-efficient route planning.
- Built ACO-based optimisation logic with heuristic cost functions aligned with real operational constraints; reduced travel distance by 25%.
- Enhanced optimisation convergence performance; created scalable optimisation framework delivering significant reduction in operational costs and improved resource utilisation.

6. Wind Speed Forecasting POC – Time Series Intelligence

Pearce Services, Gurugram, India

ML Engineer – Time Series — *May 2025*

- Analysed 1-year wind turbine dataset (50,000+ records); implemented and compared Linear Regression, LSTM, and GRU models for wind speed and active power forecasting.
- Designed next-year forecasting pipeline; identified 8-hour safe maintenance windows based on wind threshold (<20.02 m/s).
- Evaluated model performance using MAE, MSE, and trend decomposition; GRU–LSTM ensemble achieved 0.4 m/s MAE – enabling proactive maintenance planning and $200K projected annual savings.

7. Azure Cloud Adaptation for Wind Scheduling Data Processing

Pearce Services, Gurugram, India

Cloud AI Engineer — *Jun. 2025*

- Refactored file-based offline scheduling preprocessing pipeline into Azure Blob storage–compatible data ingestion and transformation architecture.
- Developed the `generate_svc_model_input_technician_func` module to automate technician availability, job metadata, and constraint preprocessing in cloud environment.
- Implemented cloud-compatible data serialisation and storage handling; conducted deployment validation and integration testing in Azure environment.

8. Inventory Data Cleaning & Duplicate Merging (Fuzzy Logic Automation)

Pearce Services, Gurugram, India

Data Engineering — *Jul. 2025 – Present*

- Applied fuzzy string-matching algorithms to detect duplicate accounts across Salesforce and Netsuite; cleaned and merged records with standardised naming and formatting.
- Automated Excel-based preprocessing pipelines; created consolidated datasets for downstream analytics.
- Reduced manual reconciliation effort; increased data integrity across systems and improved analytics and reporting accuracy.

9. Offline Key Detection – Mobile Edge AI Deployment

Pearce Services, Gurugram, India

Edge AI Engineer — *Feb. 2026*

- Designed and trained a custom YOLO-based object detection model for key identification; optimised for offline mobile deployment using TensorFlow Lite / ONNX.
- Implemented real-time inference pipeline within mobile application; reduced model size and improved latency via quantisation and architecture tuning.
- Designed system to function completely offline – enabling real-time field-level detection without internet connectivity and eliminating operational delays from network issues.

10. AI-Integrated Survey123 Model Deployment on ArcGIS Pro

Pearce Services, Gurugram, India

Geospatial AI Engineer — *Feb. 2026*

- Developed and configured model integration pipeline for Survey123 field data within ArcGIS Pro (arcgispro-py3 environment).
- Processed structured field input (forms, attributes, geolocation) into GIS-compatible formats; managed CRS alignment and automated shapefile / feature class generation.
- Implemented model-based geospatial validation and processing logic; strengthened GIS-driven operational visibility and enterprise geospatial decision workflows.

11. Geospatial Design & GIS-Based Operational Visualization

Pearce Services, Gurugram, India

GIS AI Engineer — *Feb. 2026*

- Designed unified geospatial intelligence layer for operational planning; integrated AI-generated outputs (object detection, anomaly detection) directly into GIS environments.
- Enabled real-time spatial analytics for field operations; developed performance-optimised spatial indexing strategies and scalable spatial data models.
- Transformed static GIS dashboards into intelligent decision-support systems enabling predictive, data-driven infrastructure management.

12. AI-Assisted Pole Design Validation & Multi-Source Data Reconciliation

Pearce Services, Gurugram, India

AI Engineer – Validation Systems — *Feb. 2026*

- Designed AI-powered validation framework to automate pole ownership verification, structural condition assessment, and attachment feasibility analysis.
- Automated 13 critical manual validation checks; implemented cross-platform data reconciliation (Portal, OnPath, AEP, Frontier DB, GIS) with ±2–3 ft spatial tolerance matching.
- Built confidence-based decision engine for job approval workflows with human-in-the-loop control; established foundation for enterprise-scale AI-assisted design automation.

13. Intelligent Vehicle Data Management System: A Chatbot Approach

Invincible Ocean, India

15 Apr. 2024 – Dec. 2024

- Developed and implemented a comprehensive database schema for vehicle data, encompassing registration details, sales records, insurance information, ownership history, and permits data.
- Designed and trained a natural language understanding module to parse user queries and extract relevant information using tokenization and named entity recognition.
- Built intent classification system and query execution module to translate natural language into SQL queries; deployed chatbot system providing real-time vehicle data insights with 70% reduction in manual search time.

14. Surveillance System for Security to Track Individuals Using Human Gait

Manipal University Jaipur, India

with Prof. Weiping Ding, China, PhD Project — *1 Jan. 2018 – 12 Apr. 2023*

- Surveillance system for security to monitor and ensure safety by tracking individuals using the unique walking patterns and movements of individuals within the surveillance system under covariate conditions.
- Tracking individuals using human gait involves utilizing the unique walking patterns and movements of individuals to identify and track them within the surveillance system in presence of covariate conditions.

15. Face De-Identification Pipeline Based on Physiological & Machine Recognition Using Deep Learning

Zagreb, Croatia

with Prof. Dr. Slobodan Ribarić, PhD Visit — *5 Sep. 2018 – 30 Dec. 2019*

- The face de-identification pipeline aims to protect privacy by anonymizing facial information while maintaining naturalness of face.
- Physiological and machine recognition experiments using deep learning explore patterns in facial data to understand and analyze attributes enabling effective face de-identification techniques.

16. Classification of GAIT Data Using Machine Learning to Categorise Human Locomotion

VCE, Rohtak, India

M.Tech Project — *5 Sep. 2014 – 30 Jun. 2016*

- Enables accurate identification and classification of abnormal walking patterns by analyzing and categorizing gait data using various machine learning techniques.

17. Low-Cost IoT Enabled Board Marker Using Image Processing

Manipal University Jaipur

Costing 2500 INR, where projector not available and user is physically challenged.

Jan. 2019 – Dec. 2020

18. IoT Enabled Mechanical Chess Based on Artificial Intelligence

Manipal University Jaipur

Chess played between Human VS Computer physically.

Jan. 2018 – Dec. 2019

19. Computer Vision Based Smart Car

Manipal University Jaipur

Designed and developed a car to Follow Traffic Rules Using Artificial Neural Network

Jun. 2018 – Dec. 2019

20. IoT Based Smart Assistance Spoon for Parkinson Patients

Manipal University Jaipur

Designed mechanical spoon-feeding arm.

Jan. 2017 – Dec. 2018

21. Unmanned Aerial Vehicle for Surveillance

Manipal University Jaipur

Designed Quadcopter for surveillance purposes.

Jan. 2020 – Present

22. Smartphone-Based Sleep Staging Using 1-Channel EEG

Manipal University Jaipur

Employed the use of a Machine Learning model to analyse the EEG input.

Jan. 2021 – Present

23. IoT Based Cloud Enabled Automated Weather Reporting and Prediction System

Manipal University Jaipur

Designed a system that can sense and formulates to forecast the weather.

Jan. 2018 – Dec. 2019

24. IoT Based Cloud-Enabled Smart Electricity Management System

Manipal University Jaipur

User can view consumption of electricity remotely to know the amount charged.

Oct. 2016 – Dec. 2017

25. Human Assistant Robot

Manipal University Jaipur

Chess played between human vs computer physically.

Jun. – Dec. 2018

26. IoT Enabled Mechanical Chess based on Artificial Intelligence

Manipal University Jaipur

Making Self-Navigation Robot to navigate autonomously in any environment.

Jun. – Dec. 2018

27. Drone Based Flying Solution for Medical Emergencies in Disaster Management

Manipal University Jaipur

Health care kit installed in drone for emergencies and natural calamities.

Jul. – Dec. 2016

28. M-Training Toolkit on Polio/Routine Immunization for CMCs in CGPP

ZMQ Software Systems, Gurgaon

B.Tech 8th Semester 6 Months Training

Jan. – Jul. 2013

- Designed and developed Mobile App using J2ME and Oracle 10g as backend.

29. Automatic Wireless Health Monitoring System *Essilor India Private Limited, Delhi*

B.Tech 7th Semester Practical Training-II *19 Jun. 2012 – 31 Jul. 2012*

- Monitoring the condition of patient. Wireless communication system designed and developed for remote patient monitoring. Software: Keil compiler, Embedded C. Hardware: 8051 Microcontrollers, Encoder/Decoder IC, LCD, RF Module, Transformer, Voltage Regulator.

Events Organised

Conferences Organized

1. **Organising Committee member of 3rd ICCT**, Manipal University Jaipur *19 – 20 Sep. 2023*
2. **Organising Committee member of 3rd ICICV**, Manipal University Jaipur *24 – 25 Nov. 2022*
3. **Organising Committee member of SpaceSec**, Manipal University Jaipur *9 – 10 Dec. 2021*
4. **Organising Committee member of 2nd ICICV**, Manipal University Jaipur *5 – 6 Aug. 2021*
5. **Organising Committee member of 2nd ICCT**, Manipal University Jaipur *28 – 29 Sep. 2019*
6. **Organising Committee member of SIN 2019**, Sochi Russia *12 – 15 Sep. 2019*
7. **Organising Committee member of ICICV**, Manipal University Jaipur *18 – 19 Jan. 2018*
8. **Convener of Conference on MUN 5.0**, Manipal University Jaipur *14 – 15 Apr. 2018*
9. **Convener of Conference on MUN 4.0**, Manipal University Jaipur *15 – 16 Apr. 2017*
10. **Program Committee of Accommodation Committee in SSIC – 2017**, Manipal University Jaipur *15-16 Apr. 2017*
11. **Program Committee of Accommodation Committee in SIN – 2018**, Manipal University Jaipur *13-15 Oct. 2017*
12. **Program Committee of ACM Proceedings in SIN – 2018**, Manipal University Jaipur *13-15 Oct. 2017*
13. **Program Committee of Local Promotion & Publicity Committee in SIN – 2018**, Manipal University Jaipur *13-15 Oct. 2017*
14. **Program Committee of Publication & Printing Committee in SIN – 2018**, Manipal University Jaipur, India *13-15 Oct. 2017*
15. **Program Committee of Local Organising Committee in SIN – 2018**, Manipal University Jaipur, India *13-15 Oct. 2017*
16. **Program Chair of Accommodation Committee in ICCT 2017**, Manipal University Jaipur, India *22-23 Dec. 2017*
17. **Program Committee member of Review Committee of SIN 2019**, Sochi Russia *12 – 15 Sep. 2019*
18. **Program Committee member of Review Committee of SSIC-2019**, Manipal University Jaipur, India *18-20 Jan. 2019*
19. **Program Committee member of Accommodation Committee SSIC - 2019** , Manipal University Jaipur *18-20 Jan. 2019*
20. **Program Committee member of Review Committee of SIN 2018**, Cardiff University, United Kingdom *10-12 Sep. 2018*
21. **PC member of Review Committee of RICE-2018**, Manipal University Jaipur, India *22-24 Aug. 2018*
22. **Program Committee member of Review Committee of NGCT-2017**, Manipal University Jaipur, India *30-31 Oct. 2017*
23. **Program Committee member of Review Committee of TENCON 2017**, Penang, Malaysia *05-08 Nov. 2017*
24. **Program Committee member of Review Committee of ICCT 2017**, Manipal University Jaipur, India *22-23 Dec. 2017*
25. **Program Committee member of Review Committee of SSIC 2017**, Manipal University Jaipur, India *15-16 Apr. 2017*
26. **Program Committee member of Review Committee of RICE-2017**, IT Gopeshwar, Uttrakhand, India *24-26 Mar. 2017*
27. **PC member of Review Committee of ICISSP 2015**, Manipal University Jaipur, India *9-11 Feb. 2015*

Workshop Organized

1. **Convener of workshop on IoT Solution with Oracle**, Manipal University Jaipur, India *Feb. 14, 2018*
2. **Convener of workshop on Design and Building IoT Solution with Azure**, Manipal University Jaipur, India *Jun. 27 - 29, 2017*
3. **One Week FDP on Computational Intelligence**, Manipal University Jaipur, India *Jan. 18 - 22, 2017*

Seminar Organized

1. **Industrial Internships & forming community on upcoming technologies by Novelence Core**, Manipal University Jaipur, India *13th Oct. 2018*
2. **Inertial System and Global Positioning System Technology Trends**, PDMCE, Bahadurgarh, Haryana, India *2 Nov. 2010*

Events Organized

1. **Blood Donation Camp**, Manipal University Jaipur, India *November 15, 2019*
2. **Blood Donation Camp**, Manipal University Jaipur, India *November 16, 2017*
3. **Blood Donation Camp**, Manipal University Jaipur, India *November 18, 2016*

Professional Development

Industrial Certification and Courses

1. **May. 2021**, Getting started with Deepstream for Video Analytics on Jetson. *Nvidia*
2. **Mar. 2021**, Getting Started with AI on Jetson Nano. *Nvidia*
3. **Jul. 2020**, Fundamentals of Digital Marketing. *Google*
4. **Apr. 2022**, Data Science Fundamentals with Python and SQL Specialization. *IBM*
5. **Apr. 2022**, Deep Learning Specialization @ deeplearning.ai. *Stanford University*

Short Term Courses and Workshop

1. **Ethical Hacking and Cyber Forensics**, PDMCE, Bhadurgarh *Nov. 5, 2010*
2. **Network Simulation and Related Technologies using NetSIM Software**, Manipal University Jaipur *Sep. 21 - 23, 2016*
3. **Power System Design and Analysis using DigSILENT PowerFactory Software**, Manipal University Jaipur *Oct. 3 - 5, 2016*
4. **Intel HPC Code Modernization (Parallelization and Optimization)**, Manipal University Jaipur *Oct. 12 - 14, 2016*
5. **Workshop on Pedagogic and Personal Effectiveness**, Manipal University Jaipur *Nov. 10 - 12, 2016*
6. **Biometric-based Authentication & De-identification for Privacy Protection**, Manipal University Jaipur *Dec. 19 - 25, 2016*
7. **Multimodal and Advanced Biometric-based Authentication**, MNIT, Jaipur *Jan. 2 - 11, 2017*
8. **Acquiring 21st Century Competencies through Design Based Learning in Engineering Education**, Manipal University Jaipur *Jan. 11 - 12, 2017*
9. **Computational Intelligence (Machine Based Learning)**, Manipal University Jaipur *Jan. 18 - 22, 2017*
10. **Microsoft Training Programme on Microsoft in the Classroom**, Manipal University Jaipur *Mar. 8, 2017*
11. **A Workshop on MOOCs and Digital Scholarships**, Manipal University Jaipur *Jun. 16, 2017*
12. **3rd SERB School on Robotics**, IIT Delhi *Jun. 23 - 28, 2017*
13. **Design and Building IoT Solution with Azure**, Manipal University Jaipur *Jun. 27 - 29, 2017*
14. **IoT Solution with Oracle**, Manipal University Jaipur *February 14, 2018*
15. **Emerging Applications in Image Processing**, MNIT Jaipur & Manipal University Jaipur *Feb. 21 - 25, 2018*
16. **Advanced Pattern Recognition Techniques**, MNIT Jaipur *Mar. 26 - 30, 2018*
17. **Awareness of Research Database and Online Research Network Platforms**, Manipal University Jaipur *Jan. 25, 2019*
18. **Telemedicine Challenges and its awareness**, Manipal University Jaipur *Mar. 26, 2019*
19. **Blumix Enablement Session**, Manipal University Jaipur *May 19, 2019*
20. **Deep Learning using Python Programming**, Manipal University Jaipur *Jul. 8 - 12, 2019*
21. **Learn How to Write and Publish a Research Paper**, Manipal University Jaipur *January 11, 2020*
22. **Applied Research in Multidisciplinary Studies**, Sona College of Technology, Salem *May 18-19, 2020*
23. **Colloquium on Research Methodology**, Indira Gandhi University Meerpur, Rewari *May 18-23, 2020*
24. **Emerging Effective Digital Tools for Teaching Pedagogy**, Gnanamani College of Technology, Tamil Nadu *May 25-29, 2020*
25. **ICT Tools for E-Content Development**, Women's Christian College, Chennai *May 26-29, 2020*
26. **Real Time Cognitive Services on Azure Cloud**, arvathy's Arts & Science College *Jun. 10-12, 2020*
27. **Yoga For Human Excellence**, Bharat Ratna Puratchi Thalaivar College *Jun. 21, 2020*
28. **Emerging Trends in Information Technology**, Karpagam College of Engineering, Coimbatore *Jun. 23 - 27, 2020*
29. **Essentials for Blended Learning**, Dr.MGR Education and Research Institute, Chennai *Jul. 13 - 20, 2020*
30. **NPTEL E-Awareness**, Manipal University Jaipur *Jul. 21, 2020*
31. **Data Analysis with SPSS**, Manipal University Jaipur *Jul. 23-24, 2020*
32. **Python for Data Science**, Dr.MGR Education and Research Institute, Chennai *Jul. 23 - 25, 2020*
33. **Next Generation Smart Machines (NGSM v1.0)**, Karunya Institute of Technology and Sciences *Jul. 27 - 29, 2020*
34. **Microsoft Teams Tool Training**, Manipal University Jaipur *Jul. 27 - 29, 2020*
35. **Environmental Impacts of COVID-19 Pandemic: Challenges and Remedies through Science & Engineering**, PIET Jaipur in association with RTU Kota *Jul. 27 - 31, 2020*
36. **Fundamentals of RADAR System**, N.B.K.R Institute of Science and Technology, Andhra Pradesh *Aug. 11 - 15, 2020*
37. **Artificial Intelligence and Machine Learning Application in Healthcare**, NIT Meghalaya in TEQIP-III *Sep. 03 - 07, 2020*
38. **Artificial Intelligence using Python**, CMR Engineering College, Hyderabad *Sept. 14 - 19, 2020*
39. **Machine Learning for Natural Language Processing (MNLP-2020)**, NIT Hamirpur *Oct. 12 - 17, 2020.*
40. **Research Trends in Artificial Intelligence & Machine Learning for Engineering Challenges**, MNIT, Jaipur *Dec. 6th -10th, 2022*

Seminar Attended

1. **1. Expert Talk on Recent advances in signal processing communication & Machine Learning**, Manipal University Jaipur *October 6, 2017*
2. **2. One day Session on DevOps by Microsoft**, Manipal University Jaipur *February 14, 2017*
3. **3. Data Science/Engineering-Analytic Fuels Growth of a Nation-Innovative use cases**, Manipal University Jaipur *November 25, 2016*

Invited Talk

INVITED TALK DELIVERED

3-5-2025	**Global AI Jaipur**, Speaker for Fundamentals of LLMs & RAG	*Jaipur, India*
8-2-2018	**Bhimrao Aambedkar University**, Speaker for an Expert Talk on IoT & Its Applications	*Agra, India*
27-5-2019	**Bhimrao Aambedkar University**, Speaker for an Expert Talk on Machine Intelligence	*Agra, India*
20-4-2020	**Speaker for an Expert Talk**, on Introduction to Artificial Intelligence and IoT	*Manipal University Jaipur, India*
2-3-2023	**IoT and AI Workshop**, MUJ ACM SIGAI Student Chapter, Aimed to promote Embedded systems, AI and IoT	*Manipal University Jaipur, India*

EVENT JUDGE

15-1-2019	**Invited as Judge in Hackathon organised by ACM**, Manipal University Jaipur	*Jaipur, India*
13-1-2018	**Judge for the ACM organised Hackathon**, Manipal University Jaipur	*Jaipur, India*

Reviewer

1.	**IEEE Transactions on Neural Networks and Learning Systems**, Q1, SCI	*14 November, 2022*
2.	**Neurocomputing**, Q1, SCI	*17 December, 2022*
3.	**Information Sciences**, Q1, SCI	*14 November, 2022*
4.	**IEEE Transactions on Emerging Topics in Computational Intelligence**, Q1, SCI	*30 January, 2023*
5.	**Journal of Information Security and Applications** , Q1, SCI	*3 July, 2023*
6.	**Engineering Applications of Artificial Intelligence**, Q1, SCI	*4 July, 2023*
7.	**Pattern Recognition Letters**, Q1, SCI	*18 May, 2023*
8.	**International Journal of Interactive Multimedia and Artificial Intelligence**, Q2, SCI	*11 March, 2017*

Awards and Achievements

1.	**World Association for Innovative Technology Award for Science & Technology Transfers**, In International Conference on Innovative Technologies, Zagreb, Croatia	*Sep. 6, 2018*
2.	**Young Researcher Award – Research**, Manipal University Jaipur	*Oct. 2022*
3.	**Top Achiever Award – Research**, Manipal University Jaipur	*Sep. 2022*
4.	**Best Poster Award for Gait Biometrics**, International Conference - ICCT, Manipal University Jaipur	*Dec, 2019*
5.	**Best Project Award for AI-Based Chess**, International Conference - ICCT, Manipal University Jaipur	*Dec, 2019*
6.	**Second Best Project Award for Smart Marker**, International Conference - ICCT, Manipal University Jaipur	*Dec, 2019*
7.	**Top Achiever Award – Research**, Manipal University Jaipur	*Jan. 2023*
8.	**Top Achiever Award – Research**, Manipal University Jaipur	*July. 2023*

Professional Memberships

1.	**Member of IEEE**, Institute of Electrical and Electronics Engineers	*ID. 93426265*
2.	**Member of ACM**, Association for Computing Machinery	*ID. 9763989*
3.	**Member of CSI**, Computer Society of India	*ID. 2010000571*
4.	**Member of theIRED**, Institution of Research Engineers and Doctors - Universal Association of Computer and Electronics Engineers	*ID. AM10100057578*
5.	**Member of CSTA**, Computer Science Teachers Association	*ID. 300000629*
6.	**Member of Internet Society**, Internet Society	*ID. 138776*
7.	**Member of IAENG**, International Association of Engineers	*ID. 173727*
8.	**Member of SCIEI**, Science and Engineering Institute	*ID. 201610190002*
9.	**Member of IEDRC**, International Economics Development Research Center	*ID. 90080958*

Extracurricular Activity

1. Part of Social Organizations

Manipal University Jaipur

Coordinator of NSS

January 09, 2018

- Conducting different Project/Workshop related activities and campaign programs.

2. Working for social cause

Manipal University Jaipur

Coordinator of Rotaract Club

November 12, 2017

- Collaborating with international organizations and organizing club activities.

3. Sports

Actively participated in various sports in School, Inter school, State level, University level, National Level

- Javelin Throw (National Player).
- Badminton (first position in inter college Championship).
- Basketball (State Level player, Trophy in inter college Championship).
- 1st position in 100m, relay race, hurdle 100m, short put, discus throw, basketball, throw ball, baseball - State level.

4. IEEE Student Branch Secretary and Student Microsoft Ambassadors

PDMCE, India

Conducted various technical events and participated in various technical activities

2011-2012

5. Student Body

Hyderabad, India

Member of Student Body as School Vice-Captain

2006-2007

6. Student Body

Hyderabad, India

Member of Student Body as Senior Perfect

2005-2006

7. Leasure Interest and Activities

Research, working on Projects, Programming & Learning new Technology.

- Also, I like to travel, I love being near water, sea & lakes. I enjoy adventures & doing outdoor things, especially the forest & mountain trekking; natural places such as waterfalls, hills, valley, pass etc.
- Swimming, Soccer, Oil Painting