

# CURRICULUM VITAE

## PERSONAL DETAILS:

- Name : **Dr. SAKSHI ARORA**
- Email : [sakshi@smvdu.ac.in](mailto:sakshi@smvdu.ac.in)
- Contact No. : 9419106399
- Present Office Address : School of Computer Science & Engg, , SMVDU, Katra-182320 .

## ACADEMIC QUALIFICATIONS:

- Ph.D. in Computer Science (SMVDU-2014)
- Masters in Computer Applications (University of Jammu-2001)

## TEACHING EXPERIENCE:

SMVDU: 23+ years

## RESEARCH EXPERIENCE:

## JOURNAL PUBLICATIONS – SCI/SCIE INDEXED

- Vij, Richa, and Sakshi Arora. "Modified Deep Inductive Transfer Learning Diagnostic Systems for Diabetic Retinopathy Severity Levels Classification." *Biomedical Signal Processing and Control* (2024). **Impact Factor: 4.9.**
- Kour, Navleen, Sunanda Gupta, and Sakshi Arora. "A vision-based hybrid ensemble learning approach for classification of gait disorders." *Multimedia Tools and Applications* (2024): 1-48. **Impact Factor: 2.757.**
- Vij, Richa, and Sakshi Arora. "A hybrid evolutionary weighted ensemble of deep transfer learning models for retinal vessel segmentation and diabetic retinopathy detection." *Computers and Electrical Engineering* 115 (2024): 109107. **Impact Factor: 4.0**
- Wani, I.M., Arora, S. "Deep ensemble learning for osteoporosis diagnosis from knee X-rays: a preliminary cohort study in Kashmir valley." *Neural Comput & Applic* (2024). <https://doi.org/10.1007/s00521-024-10158-6>. **Impact Factor: 4.5**
- Vij, Richa, and Sakshi Arora. "A Systematic Review on Deep Learning Techniques for Diabetic 5 Segmentation and Detection Using Ocular Imaging Modalities". *Wireless Personal Communications* 134.2 (2024): 1153-1229. **Impact Factor 1.9**
- Kalsotra, Rudrika, and Sakshi Arora. "Performance analysis of U-Net with hybrid loss for foreground detection." *Multimedia Systems* 29.2 (2023): 771-786. **Impact Factor: 1.956**
- Vij, Richa, and Sakshi Arora. "A novel deep transfer learning based computerized diagnostic Systems for Multi-class imbalanced diabetic retinopathy severity classification". *Multimedia Tools and Applications* 82.22 (2023): 34847-34884. **Impact Factor: 2.757.**

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- Wani, Insha Majeed, and Sakshi Arora. "Osteoporosis diagnosis in knee X-rays by transfer learning based on convolution neural network." *Multimedia Tools and Applications* 82.9 (2023): 14193-14217. **Impact Factor: 2.757.**
  - Vij, Richa, and Sakshi Arora. "A systematic review on diabetic retinopathy detection using deep learning techniques." "Archives of Computational Methods in Engineering" 30.3 (2023): 2211-2256. **Impact Factor: 7.242**
  - Kour, Navleen, Sunanda Gupta, and Sakshi Arora. "Sensor technology with gait as a diagnostic tool for assessment of Parkinson's disease: a survey." *Multimedia Tools and Applications* 82.7 (2023): 10211-10247. **Impact Factor: 2.757.**
  - Vij, Richa, and Sakshi Arora. "A systematic survey of advances in retinal imaging modalities for Alzheimer's disease diagnosis." "Metabolic Brain Disease" (2022): 1-31. **Impact Factor: 3.584.**
  - Kour, N., Gupta, S., & Arora, S. (2022). A vision-based clinical analysis for classification of knee osteoarthritis, Parkinson's disease and normal gait with severity based on k-nearest neighbour. *Expert Systems*, e12955. **Impact Factor: 2.857.**
  - Singh, Jasvinder Pal, et al. "Hybrid neural network model for reconstruction of occluded regions in multi-gait scenario." *Multimedia Tools and Applications* 81.7 (2022): 9607-9629. **Impact Factor: 2.757.**
  - Kumar, Satish, Sunanda Gupta, and Sakshi Arora. "A comparative simulation of normalization methods for machine learning-based intrusion detection systems using KDD Cup'99 dataset." *Journal of Intelligent & Fuzzy Systems* 42.3 (2022): 1749-1766. **Impact Factor: 1.739**
  - Kalsotra, Rudrika, and Sakshi Arora. "Background subtraction for moving object detection: explorations of recent developments and challenges." *The Visual Computer* (2021): 1-28. **Impact Factor: 2.081.**
  - Kumar, Satish, Sunanda Gupta, and Sakshi Arora. "Research Trends in Network-Based Intrusion Detection Systems: A Review." *IEEE Access* (2021). **Impact Factor : 3.367**
  - Kour, Vippon Preet, and Sakshi Arora. "Recent developments of the internet of things in agriculture: a survey." *IEEE Access* 8 (2020): 129924-129957. **Impact Factor: : 3.367**
  - Kalsotra, Rudrika, and Sakshi Arora. "A comprehensive survey of video datasets for background subtraction." *IEEE Access* 7 (2019): 59143-59171.
  - Majeed, I., & Arora, S. (2019). "Computer-Aided Diagnostics Systems for Osteoporosis Detection: A Comprehensive Survey". *Medical & Biological Eng & Computing* (MBEC). **Impact Factor: 1.82.**
  - Kour, N., Sunanda, & Arora, S. (2019). A Survey of Knee Osteoarthritis Assessment Based on Gait. *Archives of Computational Methods in Engineering (ARCO)*. **Impact Factor: 7. 242.**

- Singh, Jasvinder Pal, et al. "A survey of behavioral biometric gait recognition: Current success and future perspectives." *Archives of Computational Methods in Engineering* 28.1 (2021): 107-148. **Impact Factor: 7.242**
- Kour, N., & Arora, S. (2019). Computer-Vision Based Diagnosis of Parkinson's Disease via Gait: A Survey. *IEEE Access*, 7, 156620-156645. **Impact Factor: 4.098.**
- Singh, Jasvinder Pal, et al. "Reconstruction of occluded ROI in multi-person gait based on numerical methods." *Multimedia Systems* 26.3 (2020): 249-266. **Impact Factor: 1.956**
- Kour, V. P., & Arora, S. (2019). Particle Swarm Optimization Based Support Vector Machine (P-SVM) for the Segmentation and Classification of Plants. *IEEE Access*, 7, 29374-29385. **Impact Factor: 4.098.**
- Singh, J. P., Jain, S., Arora, S., & Singh, U. P. (2018). Vision-Based Gait Recognition: A Survey. *IEEE Access*, 6, 70497-70527. **Impact Factor: 4.098.**

### **SCOPUS PUBLICATIONS**

- Kour, Vippon Preet, and Sakshi Arora. "Plantaek: A leaf database of native plants of jammu and kashmir." *Recent Innovations in Computing: Proceedings of ICRIC 2021, Volume 1*. Singapore: Springer Singapore, 2022. 359-368.
- Vij R, Arora S. Computer Vision with Deep Learning Techniques for Neurodegenerative Diseases Analysis Using Neuroimaging: A Survey. 2022 (pp. 179-189). Springer.
- Kalsotra, R., Arora, S. (2022). Superpixels-Guided Background Modeling Approach for Foreground Detection. In: Singh, P.K., Singh, Y., Kolekar, M.H., Kar, A.K., Gonçalves, P.J.S. (eds) *Recent Innovations in Computing. Lecture Notes in Electrical Engineering*, vol 832. Springer, Singapore. [https://doi.org/10.1007/978-981-16-8248-3\\_25](https://doi.org/10.1007/978-981-16-8248-3_25).
- Kumar, S., Sunanda, Arora, S. (2020). A Statistical Analysis on KDD Cup'99 Dataset for the Network Intrusion Detection System. In: et al. *Applied Soft Computing and Communication Networks. ACN 2019. Lecture Notes in Networks and Systems*, vol. 125. Springer, Singapore.
- Gupta, S., Arora, S. (2018). Queuing Systems in Cloud Services Management: A Survey. *International Journal of Pure and Applied Mathematics* Volume 119 No. 12 2018, 12741-12753.
- Kour, Vippon Preet, and Sakshi Arora. "Fruit disease detection using rule-based classification." *Smart Innovations in Communication and Computational Sciences: Proceedings of ICSICCS-2018*. Singapore: Springer Singapore, 2018. 295-312.
- Kour, VipponPreet; Arora, Sakshi; Pal Singh, Jasvinder. A survey on vision based techniques for detection and classification of fruit diseases. *International Journal of Engineering & Technology*, [S.l.], v. 7, n. 4.5, p. 506-510, Sep. 2018. ISSN 2227-524X.

- Arora Sakshi & Sunanda, “Genetic K-Means Clustering for Route Discovery in MultiCast Networks”, International Journal of Control Theory and Applications, Vol. 10 (4), 49-56 (2017).
- Arora Sakshi & Sunanda, “Virtual Machine Availability and Load Balancing in Cloud Environment”, International Journal of Control Theory and Applications, Vol. 10 (4), 183-190 (2017).
- Gupta, S., & Arora, S. (2017). A review of Data mining issues in cloud environment” (320-325). Journal of Computer and Mathematical Sciences. ISSN 0976 – 5727, Volume 6, Issue 9. 2017.
- Gupta, S., & Arora S, “Security in Cloud Computing”, International Journal of Advance Research in Science and Engineering”, Vol. No. 5, 280-285 (2016).
- Gupta, S., & Arora, S. (2015). Boosting Simulated Annealing With Fitness Landscape Parameters for Better Optimality. International Journal of Computing, 14(2), 107-112. (h-index: 8).

### **BOOK CHAPTERS**

- Vippon Preet Kour, Sakshi Arora ; Image-Based Plant Disease Detection Using IoT and Deep Learning, Green Industrial Applications of Artificial Intelligence and Internet of Things (2024) 1: 61. <https://doi.org/10.2174/9789815223255124010008>
- Kumar, S., Sunanda, Arora, S. (2024). A Naïve Performance Metric Parameter for an Intrusion Detection System Model. In: Singh, Y., Singh, P.K., Gonçalves, P.J.S., Kar, A.K. (eds) Proceedings of International Conference on Recent Innovations in Computing. ICRIC 2023. Lecture Notes in Electrical Engineering, vol 1194. Springer, Singapore. [https://doi.org/10.1007/978-981-97-2839-8\\_45](https://doi.org/10.1007/978-981-97-2839-8_45)
- Kour, N., Gupta, S., & Arora, S. (2021). A Vision-based Gait Dataset for Knee Osteoarthritis and Parkinson’s disease Analysis with Severity Levels. Advances in Intelligent Systems and Computing, Springer.
- Wani, Insha Majeed, and Sakshi Arora. "A review on using dental images as a screening tool for osteoporosis." Proceeding of International Conference on Computational Science and Applications: ICCSA 2019. Springer Singapore, 2020.
- Majeed, I., Arora, S. (2019). “Deep Neural Networks for Diagnosis of Osteoporosis”. Lecture Notes in Electrical Engineering, 978-3-319-15764-1. Springer International Publishing Switzerland.
- Rashid, W., Arora, S., Gupta, M. (2019) Missing Value Imputation Approach Using Cosine Similarity Measure. Accepted for publication in Advances in Intelligent Systems, Computing 978-981-13-2413-0.
- Arora, S., Garg, M.L. (2013). Strongly Biased Crossover Operator for Subgraph Selection in Edge-Set Based Graph Representation. Advances in Intelligent Systems and Computing. ISSN: 1867-5662.

## **PATENTS FILED/GRANTED**

- A METHOD FOR HUMAN IDENTIFICATION IN MULTI-GAIT SCENARIO
  - Filed 2019-07-19
  - Published 2021-08-27
- An IOT based Smart Tool for Precision Agriculture
  - Ref. No. : 202111040974
  - Application No. : E-137/2598/2022/DEL

## **CONFERENCE PRESENTATIONS/PUBLICATIONS**

- Kalsotra, R., & Arora, S. (2020). Comparative Study of Statistical and Deep Learning Models on Background Subtraction for Moving Object Detection. In International Conference on Mathematical Sciences and Computational Intelligence, December 21-22, 2020, (SMVDU).
- Wani, Insha Majeed, and Sakshi Arora. "A knee X-ray database for osteoporosis detection." 2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions)(ICRITO). IEEE, 2021.
- Navleen Kour, Sunanda, Sakshi Arora "A Computer Vision based Approach towards Evaluation of Knee Osteoarthritis and Parkinson's disease via Gait Analysis". proceedings of the 6th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET), 2020, Shri Mata Vaishno Devi University, ISBN No. 978-93-88484-94-7.
- Navleen Kour, Sunanda, Sakshi Arora "A Survey of Gait Analysis for Identification of Parkinson's Disease", International Conference on Mathematical Sciences and Computational Intelligence (ICMSCI), 2020, School of mathematics, Shri Mata Vaishno Devi University Jammu and Kashmir.
- Preet Kour, Vippon, and Sakshi Arora. "Recent advancements of internet of things in the design and development of precision models", in the 6th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET 2019-2020).
- Preet Kour, Vippon, and Sakshi Arora. "Vision based techniques for image classification: A survey." Proceedings of the International Conference on Innovative Computing & Communications (ICICC). 2020.
- Diagnosis of Osteoporosis from Knee X-rays using Local Binary Pattern. 2<sup>nd</sup> International Conference on Innovations in Communications Computing and Sciences, 2394-5125. July 24-25, 2020. Vol.7, Issue 18 2020. Pg : 421-426
- Singh, Jasvinder Pal, et al. "A multi-gait dataset for human recognition under occlusion scenario." 2019 International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT). Vol. 1. IEEE, 2019.
- Computer vision-based diagnosis of neurodegenerative diseases using medical image analysis: a survey in two days international conference on "Mathematical Sciences and Computational Intelligence" organized by SMVDU.

- Kumar Sudesh, Arora Sakshi, Sunanda, “Light-Fidelity: Next Generation Wireless Networks- A Survey, 2nd International Conference on Smart Systems and Inventive Technology (ICSSIT 2019) 27th -29th Nov. 2019. Francis Xavier Engineering College, Tirunelveli, India.
- Satish, Sunanda, Arora Sakshi, “A Survey on the State of Art Approaches Used in Intrusion Detection System”, (165-176), International Conference on Machine Learning and Computational Intelligence, 28th -29th Sep.2017.
- Kalsotra, Rudrika, and Sakshi Arora. "Morphological based moving object detection with background subtraction method." 2017 4th International Conference on Signal Processing, Computing and Control (ISPCC). IEEE, 2017.
- Rudrika Kalsotra, Sakshi Arora, " Recent Trends in Background Subtraction Approach for Moving Object Detection, IInternational Journal of Scientific Research in Computer Science, Engineering and Information Technology(IJSRCSEIT), ISSN : 2456-3307, Volume 2, Issue 7, pp.261-271, September-2017.
- Arora Sakshi, “A Elitist Genetic-Cuckoo hybrid search algorithm for Engineering Optimization”, 3rd International Conference on Recent Trends and Advancements in Engineering and Technology 2016 (17-18 November).
- Kumar Satish, Sunanda, Arora Sakshi., “A Comparative Analysis of Bacterial Foraging Optimization Algorithm”, 3rd International Conference on Recent Trends and Advancements in Engineering and Technology 2016 (17-18 November).
- Malhotra Aanchal, Arora Sakshi, “Analysis of Ant Colony and Particle Swarm Optimization Techniques for the Travelling Salesman Problem”,3rd International Conference on Recent Trends and Advancements in Engineering and Technology 2016 (17-18 November).
- Kaur, Vippon preet, Arora Sakshi, “A Naïve precision Agriculture System Model using Internet of Things”, 3rd International Conference on Recent Trends and Advancements in Engineering and Technology 2016 (17-18 November).
- Arora Sakshi and Gupta, Sunanda, “Effect of the Core Selection Strategy in Determining the Optimum BDMST in Multicast Networks”, Advances in Computer Science and Information Technology Vol (2),2, (2015): pp. 249-251.
- Gupta, Sunanda., and Arora,Sakshi, “Cloud for Data Mining: Issues and Challenges”, International Conference on Advancements in Engineering and Technology, Sangrur, 18th -19th March, 2016.
- Arora, Sakshi., and Gupta, Sunanda., “Enhanced K-means clustering for route discovery in Multicast networks”, Advancements in Engineering and Technology, Sangrur, 18th -19th March, 2016.

- Gupta, Sunanda., and Arora,Sakshi , “An Archive Enhanced Hybrid Genetic Algorithm for Shortest Path Routing Problem” , International conference on computer and communication technology, MNIT Allahabad, September 25th -27th 2015.
- Arora, Sakshi, and M. L. Garg. "Neighborhood search for the bounded diameter minimum spanning tree." *Int. J. Emerg. Technol. Adv. Eng* 3.2 (2013).
- Arora, Sakshi, and M. L. Garg. "Clustering the data points to obtain optimum backbones for the bounded diameter minimum spanning trees." *Communication Systems and Network Technologies (CSNT), 2011 International Conference on. IEEE, 2011.*
- Arora S., Padha D., “A Greedy Heuristic for the bounded diameter minimum spanning tree”. *JK Science Congress* (2010). University of Jammu.
- Arora, Sakshi., and Garg,M.L. " New hybrid evolutionary algorithm for solving the bounded diameter minimum spanning tree problem." *Advances in Computational Research* 1.2 (2009), pp. 43-46.
- Arora, Sakshi., and Garg,M.L., “A mobile agent based intelligent immune Network Intrusion Detection architecture” at National Conference on “Emerging Principles and Practices of Computer Science and Information Technology (EPPCSIT 2009)”, Sep 2009, Ludhiana.
- Gupta, Sunanda., and Arora,Sakshi., “Role of IT in Developing Countries” National Conference on India and Other Emerging Economies (BRIC) – A Comparative study” held on October 24,2007.
- Arora, Sakshi., and Gupta,Sunaplantaeknda., “Correlating Information Technology and National Development in Indian Context” at National Conference on India and Other Emerging Economies – A Comparative study” held on October 24,2007.
- Gupta, Sunanda., “Genetic algorithms as a meta search tool in web mining” at IETE National conference on ‘Emerging trends in Electronics technologies NCTET, at IETE Conference in collaboration with Shri Mata Vaishno Devi University 2006.
- Arora, Sakshi, “Linux and Perl, Computer tools in study & analysis of biological information.” *National Conference on Bioinformatics Computing*. 19<sup>th</sup> Feb 2006.
- Arora, Sakshi., “Evolution of Biology and Computers” at “Biocon: 2006” National conference on “Bioinformatics computing”, Chowdhary Devi Lal University, Haryana.
- Arora, Sakshi., “Parallel Computing and the issues” at 3rd International conference on ‘Mobile, Ubiquitous and pervasive computing’, VIT University, December 2006.
- Arora Sakshi., “On Genetic Algorithms and Optimal Path finding” at U.G.C Sponsored National Conference on “Emerging computer Technologies” 2005. Haryana.

- Arora, Sakshi. “Protein Folding: A Stochastic Process” at JK Science Congress 2005.

### **ONLINE RESOURCES /OPEN SOURCE DATABASES DEVELOPED**

- Dataset for Human Recognition under Multi Gait Scenario. (<https://data.mendeley.com/datasets/py4zw6g7xc>)
- Plantaek: A Leaf Database of native plants of Jammu & Kashmir. (<https://data.mendeley.com/datasets/t6j2h22jpx>)
- Kour, N., Gupta, S., & Arora, S. (2020). Gait dataset for knee osteoarthritis and Parkinson's disease analysis with severity levels. Mendeley Data, V1. (<https://doi.org/10.17632/44pfny89.1>)
- Majeed Wani, Insha; Arora, Sakshi (2021), “Knee X-ray Osteoporosis Database”, Mendeley Data, V2. (<https://doi:10.17632/fxjm8fb6mw.2>).

### **WORKSHOP CONVENER/CO-CONVENER/Session Chair**

- Session Chair in the 5th International Conference on Computing, Communication and Cyber Security , 2024. Organised by the Deptt. Of Computer Science & Engg., SMVDU from 29.2.2024-1.3.2024.
- Co-Coordinator of the National Level Open Day at SMVDU, organised by the Faculty of Engineering, SMVDU on 03.02.2024.
- Coordinator of the 5th International Conference on Computing, Communication and Cyber Security , 2024. Organised by the Deptt. Of Computer Science & Engg., SMVDU from 29.2.2024-1.3.2024.
- Coordinator of the One week FDP on Machine Learning for Business Intelligence (Online Mode). Organised by the Deptt. Of Computer Science & Engg., SMVDU from 28.02.2024 – 05.03.2024.
- Coordinator of the One Day Curriculum Development Workshop organised by the Deptt. Of Computer Science & Engg., SMVDU on 01.03.2024.
- Conducted a One day Workshop on Artificial Intelligence for Data Analytics. 15.12.2023 at Government College for Women Parade, Jammu.
- Session Chair in the “International Conference on Mathematical Sciences and Computational Intelligence” 21st -22nd DECEMBER, 2020. Organised by Shri Mata Vaishno Devi University, Katra, J&K in association with Advance Research Educational Society.
- **Co-Convener** in the National Conference on Information Technology and Business Analytics - 7th to 8th January 2017, organized by Department of Computer Science & Engineering SMVDU.
- **Remote Centre Coordinator** for one day workshop on “*Python skills*” organized by IIT Bombay, under the agies of NMEICT, MHRD, GOI.
- **Workshop Coordinator** for one day workshop on *esim*, conducted by IIT Bombay on 21<sup>st</sup> of September 2019.
- **Workshop Coordinator** for TEQIP-III sponsored Two day National workshop on “*Ethical Hacking and Cyber Security*”, from 25<sup>th</sup> to 26<sup>th</sup> September 2019.

- **Convener:** One day Workday on “*Ethical Hacking Cyber Security*”, organised by Faculty Development Centre, SMVDU. 14<sup>TH</sup> January 2022.
- **Technical Chair** of the 3rd International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET). November 2016.

### **MOOC/NPTEL COURSES**

- AICTE Module 1: Orientation Towards Technical Education and Curriculum Aspects. From Aug-Dec 2023, February 2024. National Initiative for Technical Teachers Training.
- AICTE Module 2: Professional Ethics and Sustainability from Aug-Dec 2023-February 2024, under National Initiative for Technical Teachers Training.
- AICTE Module 6: Student Assessment and Evaluation. From Aug-Dec 2023-February 2024, under National Initiative for Technical Teachers Training.
- AICTE Module 5\_ Technology Enabled Learning & Life Long Self Learning. From Aug-Dec 2023- February 2024, under National Initiative for Technical Teachers Training.
- NEP 2020 Orientation and Sensitization Programme under Malviya Teacher Training Programme (Online Mode) from 11.12.2023-19.12.2023. Organised by UGC-MMTTC Central University of Jammu.
- Problem Solving through Programming in C, organised by IIT Kharagpur, through NPTEL platform of SWAYAM, Funded by MHRD, GOI. Grade Achieved: 60.1%.
- Fundamentals of Digital Image and Video Processing. Northwestern University, Offered through Course era. Grade Achieved: 76.5%.
- Machine Learning for All. University of London, Offered through Course era.
- Two Week ISTE STTP on “Introduction to Design of Algorithms”. 27th April to 30th May, 2015. Conducted by IIT Kharagpur.
- Faculty Development Programme Organised by Indian Institute of Management (IIM) Jammu, from 20.02.2020 to 24.01.2020.
- AICTE recognized Short Term Course on MATLAB & LABVIEW With Its Hardware Interface through ICT. Conducted by NITTTR, Chandigarh. Course duration: 29.01.2018 to 02. 02. 2018.

### **FACULTY DEVELOPMENT PROGRAMMES**

- One Week Online FDP on “Big Data and Analytics”, from 3.4.23 to 7.4.23. Organised by Deptt. of Information Technology, DR B R Ambedkar National Institute of Technology Jalandhar.
- 10 Day Online FDP on “Randomized and Approximation Algorithms” from 20.5.23 – 30.5.23 under Ministry of Electronics and Information Technology (MeitY) GoI organized by E&ICT Academy NIT Warangal and Deptt of Comp Science & Engg.

- Two Weeks of Industrial Training programme with the IT division of Jammu Smart City Ltd. From 5.6.23 – 17.6.23 Jammu Smart City Ltd.
- 10 Day Online Faculty Development Programme (FDP) on “Data Analytics For Advanced Research Using R and TABLEAU”, from 01.05.23 to - 10.5.23 under Ministry of Electronics and Information Technology (MeitY) GoI organized by E&ICT Academy NIT Warangal and GITAM School of Business, Hyderabad.
- One week FDP on Machine Learning for Business Intelligence (Online Mode) 28.2.24-5.3.24. Organised by the Deptt. Of Computer Science & Engg., SMVDU in collaboration with Malviya Mission Teachers Training Centre.
- FDP on Exemplary practices in Teaching-Learning and Evaluation of Courses in Computer Science and Information Technology 3-7 August 2020 Visvesvarya Technological University, Belagavi, Indian Institute of Information Technology, Uttar Pradesh.
- AICTE approved Faculty Development Programme (FDP 201 X) on Pedagogy for Online and Blended Teaching-Learning Process. Organised by IIT Bombay under MHRD, GOI. From 3rd May.2018 to 30th May 2018.
- One week FDP on “Business Analytics using R.” Organized by Delhi Institute of Advanced Studies. From 16th Dec 2017 to 22nd Dec 2017.
- AICTE Approved FDP on Foundation Program in ICT for Education. IIT Bombay & SMVDU Katra. From March 8th 2018 to April 12th 2018.
- One week FDP on Application of soft computing and machine learning. 3rd April 2018 to 7th April 2018, organized by SoCSE, SMVDU, Katra- 182320.
- 1 week FDP on Wireless & Mobile Communication, Organized by, Ministry of Electronics & Information Technology (MeitY), from 3rd to 7th December 2018.

### **INVITED LECTURES/TALKS**

- Lecture on Artificial Intelligence Tools for Academic Excellence, Refresher course, December 2024, Central University of Jammu.
- Lecture on Academic Excellence using AI, Refresher course, 23<sup>rd</sup> December 2024, Central University of Jammu.
- Lecture on Data Analytics using Advance Ms-Excel, NEP Training module, MMTTC, Central University of Jammu, 19<sup>th</sup> December 2024.
- Delivered a Lecture in the 7 Day Foundational Training: MS Word, MS excel and Email Basics 29th Jan -6th Feb. 2024. Organised by Shri Mata Vaishno Devi University.
- Delivered a Lecture in the One week FDP on Machine Learning for Business Intelligence (Online Mode) 28.2.24-5.3.24. Organized by the Deptt. Of Computer Science & Engg., SMVDU in collaboration with Malviya Mission Teachers Training Centre.
- Delivered a Lecture in the One Week NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of UGC 23.01.2024 – 31.01.2024. Organised by Malviya Mission Teachers Training Centre, Central University of Jammu.

- Delivered a Lecture in the One Week NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of UGC 15.05.2024 – 23.05.2024. Organized by Malviya Mission Teachers Training Centre, Central University of Jammu.
- Invited as Resource Person in 10 days Workshop on Data Analytics Using R Software from 18.07.22 – 28.07.22. Organised by the Department of HRM, Central University of Jammu.
- Delivered a Lecture on Sexual harassment at workplace – sensitization and awareness ; Understanding of POSH Act 2013, at the Training programme at Officers training institute, J&K Bank Gole Gujral, on 19.5.23.
- Delivered a Lecture on the Status of Women; Present and Past. Social Psychological and economic status of women in India. In the Two Week's "GO's Refresher Course", on 14.9.2022, held by Sher-e-Kashmir, Police Academy, Udhampur.
- Invited as Expert for the conduct of interviews for recruitment of field investigators for DRDO sponsored project, on 23rd April 2021. Conducted by Central University of Jammu.
- Delivered a Lecture on The Role of Big Data, Artificial Intelligence and Machine Learning in Cyber Intelligence. in the Digital Literacy: Training program on "Soft Skills and Personality Development", on 31.03.2021. Organized by Central University of Jammu at Govt. College of Education, Canal Road Jammu.
- Delivered a Lecture on The Social Media Optimization, in Digital Literacy: Training program on "Soft Skills and Personality Development" on 01.04.2021 Organized by Central University of Jammu at Govt. College of Education, Canal Road Jammu.
- Delivered a Lecture on The Trends and Opportunities for using Digital Technologies, in the Digital Literacy: Training program on "Soft Skills and Personality Development", on 03.04.2021. Organized by Central University of Jammu at Govt. College of Education, Canal Road Jammu.
- Data Validation & Manipulating Data through Data Tables. "Advance Computer Skills for Effective performance"- Executive Training Programme- Capacity Building of the Shrine Board Employees 19th July-2nd Aug, 2019 SMVDU.
- Data Validation & Manipulating Data through Data Tables. "Advance Computer Skills for Effective performance"- Executive Training Programme- Capacity Building of the Shrine Board Employees 09 Sep-13th Sep, 2019 SMVDU.
- Green Technologies Refresher Course in Environmental Science (Inter Disciplinary) 21st Oct – 04th Nov 2019 University of Jammu.
- Tools to fight social media abuse Social Media in Indian Police 2nd July-3rd July 2019 Sher-e-Kashmir Police Academy, Udhampur

- “Basics of Soft computing Paradigm”, in two weeks National Faculty Development Centre, organised by HRDC SMVDU, Katra, Approved under PMMMNMTT, MHRD, GOI. 16th Feb to 1st March 2019.
- “Tools to fight social media abuse: Blocking/Takedown/Preservation.”, in 2 days Seminar on ‘Social Media in Indian Police’, organized by Sher-e-Kashmir Police Academy, Udhampur. 3rd July 2019.
- “Cyber Security in Indian Police”, in 2 days Seminar on “Social Media in Indian Police”, organised by Sher-e-Kashmir Police Academy, Udhampur. 24.02.2018.
- “Social Media Abuse: Challenges”, National Faculty Induction Programme, Central Univ Jammu. May 2018.
- “Cyber Law Framework to Fight Social media Abuse: The Indian Perspective”, in Four Week Refresher Course, organized by Central University of Jammu. 16th March 2017.
- “Computer Forensics”, in 04 day training course on Disc Forensics, organised by Sher-e-Kashmir Police Academy, Udhampur. 22nd May 2017.
- “Cyber Crime & Cyber Forensic Tools”, in UGC- sponsored General Orientation Course, organized by Human Resource Development Centre, University of Jammu. 18.12.2017 to 15.01.2018.
- “Cyber Law & Digital Forensics” in UGC- sponsored General Orientation Course, organized by HRDC, University of Jammu. 30.12.2017 to 15.01.2018.
- “Cyber Crime: A Technical Perspective”, in UGC-sponsored Refresher Course, organized by HRDC, University of Jammu. 15.12.2017 to 21.01.2018.
- “Social Media Abuse”, in Faculty Induction Programme, under Pandit Madan Mohan Malviya National Mission of Teachers Training from 06.12.2017 to 08.01.2018.
- “Cyber Security in Indian Police”, in 2 days National Seminar on “Social Media in Indian Police”, organized by Sher-e-Kashmir Police Academy, Udhampur. 24.02.2018.
- Conducted a workshop on ‘Cyber security and Cyber law Framework’. Organized by Govt. degree College Thanna Mandi. 19th August 2021.
- Conducted a Training Programme on ‘Cyber Crime Investigation Tools’. Organized by Govt. degree College Thanna Mandi. 20th August 2021.

I do hereby declare that the particulars furnished above by me are correct and true to the best of my knowledge and belief and nothing has been concealed/ distorted



Dr. SAKSHI ARORA  
(Assistant Professor, SoCSE)

Place: Jammu  
Date: 26-09-24