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Associate Director (SIIEDC)  
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**JU Profile:** JU Faculty Profile

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## Research Interests

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Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision, Brain-Computer Interface, Electroencephalography, Neuroscience, Drones, Internet of Things

## ACADEMIC QUALIFICATIONS

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**Doctor of Philosophy (Ph.D.) in Computer Science & IT 2016** *University of Jammu*

**State Level Eligibility Test (SLET) for Lectureship 2005** *University of Jammu*  
Qualified for the position of Assistant Professor.

**Master of Computer Applications (M.C.A.) 2005** *Department of Computer Science & IT, University of Jammu*

**Bachelor of Science (B.Sc. Non-Medical) 2004** *Government Gandhi Memorial Science College, University of Jammu*  
Major Subjects: Mathematics, Physics, Chemistry

**Senior Secondary Education 1997** *Sainik School, Nagrota*  
Stream: Science (Mathematics, Physics, Chemistry, biology)

## Member of ACADEMIC / ADMINISTRATIVE COMMITTEES

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- **Member**, Departmental Research Committee (DRC), Department of Computer Science & IT, University of Jammu.
- **Member**, Departmental Research Committee (DRC), Department of Statistics, University of Jammu.
- **Member**, Departmental Academic Committee (DAC), Skill, Incubation, Innovation and Entrepreneurship Development Centre (SIIEDC), University of Jammu.
- **Member**, Board of Studies, Department of Computer Science & IT, University of Jammu.
- **Member**, Board of Studies, Skill, Incubation, Innovation and Entrepreneurship Development Centre (SIIEDC), University of Jammu.
- **Member**, Purchase Committee, Skill, Incubation, Innovation and Entrepreneurship Development Centre (SIIEDC), University of Jammu.
- **Member**, IT Club, University of Jammu.
- **Course Coordinator**, Design Your Degree Program, University of Jammu.

- **Editorial Board Member**, *EAI Endorsed Transactions on Energy Web*, European Alliance for Innovation (EAI).

## RESEARCH ACTIVITIES AS PHD SUPERVISOR / GUIDE / CO-GUIDE

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### Ph.D. Theses Awarded

1. **Dr. Neeraj Kumar** (Enrolled: 2017, Awarded: 2022)  
*"Empirical study of machine learning algorithms in predictive diagnosis of medical disorders".*
2. **Dr. Rachit Gupta** (Enrolled: 2018, Awarded: 2023)  
*"A study of Machine Learning based approaches to develop an optimized framework for early diagnosis of Oral Cancer and Pre-cancerous lesions".*
3. **Ms. Priya Rani** (Enrolled: 2019, Awarded: 2024)  
*"A Study of Deep Learning Based Approaches to Design and Develop Optimized Framework for classification of Microscopic Bacteria Images".*
4. **Ms. Shallu Kotwal** (Enrolled: 2021, Awarded: 2025)  
*"Design and Development of an Intelligent Hybrid Framework for Automated Classification of Microscopic Bacterial Images".*

### Current Ph.D. Scholars (Ongoing)

- **Ms. Ayushi Kotwal** (Enrolled: 2022)  
*"Deep Learning based Human Emotions Detection for Cognitive State Assessment using EEG signals Classification".*
- **Mr. Amit Singh** (Enrolled: 2024)  
*"An integrated approach to stock market forecasting : Leveraging Machine learning,Gann Theory and Fibonacci ratio".*
- **Mr. Ajay Lakhnotra** (Enrolled: 2024)  
*"Design and Development of an Autonomous UAV-Based Intelligent Framework for Predictive Analysis of Road Quality using Machine Learning Techniques".*
- **Mr. Abrar Ali** (Enrolled: 2024)  
*"Automated UAV-based real-time crop water stress monitoring for precision irrigation using machine learning".*
- **Ms. Marziya Arman** (Enrolled: 2025)  
*"Design and Development of an AI-based Framework for Detection and Classification of Wild Animals in the Region of UT of Ladakh".*
- **Ms. Renu Samyal** (Enrolled: 2025)  
*"AI-Assisted Memory Forensics: A Hybrid Vision Transformer and GNN Framework for Real-Time Image-Based Malware Detection and Classification".*
- **Mr. Rahul Sharma** (Enrolled: 2025)  
*"Brain-Computer Interface Systems with Artificial Intelligence-Powered Drone Navigation Using Electroencephalogram Signals".*

## **RESEARCH PROJECTS**

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### **1. Technology Convergence in the field of cyber physical systems**

**Sponsoring Agency:** DST, Govt. of India through iHUB, DivyaSampark, IIT Roorkee

**Scheme:** For running SpokeHub

**Budget:** Rs. 10.55 Lakhs

**Duration:** 2 Years

### **2. Artificial Intelligence based landslide Monitoring and Forecasting system in the UT of Jammu & Kashmir**

**Sponsoring Agency:** DST, Govt. of J&K through JK Science Technology & Innovation Council

**Budget:** Rs. 10.80 Lakhs

**Duration:** Jan 2023 – Jan 2025 (2 Years)

### **3. Enriching J&K's Literature through Artificial Intelligence- based Preservation to enhance accessibility and dissemination of Rare Books**

**Sponsoring Agency:** University of Jammu

**Scheme:** Trans-Disciplinary Research Scheme

**Budget:** Rs. 10 Lakhs

**Duration:** Dec 2023 – Dec 2025 (2 Years)

### **4. Voice Modification Prototype to Improve Speech Intelligibility for Hearing Impaired Users: An alternative to Hearing Aids**

**Sponsoring Agency:** DST, Govt. of India & IIT Roorkee through iHUB Divyasampark

**Scheme:** Divyasampark iHUB Roorkee for Devices, Materials and Technology Foundation

**Budget:** Rs. 20.00 Lakhs

**Duration:** Dec 2023 – Dec 2024 (1 Year)

### **5. A Graphical User Interface for Integrating Molecular Dynamics Simulations, Dimension Reduction Techniques and Virtual Screening for Cancer-Targeted Drug Discovery**

**Sponsoring Agency:** DST, Govt. of India & IIT Roorkee through iHUB Divyasampark

**Scheme:** Divyasampark iHUB Roorkee for Devices, Materials and Technology Foundation

**Budget:** Rs. 20.00 Lakhs

**Duration:** Dec 2023 – Dec 2024 (1 Year)

### **6. InspectO UGV- Road Obstruction Detection and Data Collection Robot**

**Sponsoring Agency:** DST, Govt. of India & IIT Roorkee through iHUB Divyasampark

**Scheme:** Divyasampark iHUB Roorkee for Devices, Materials and Technology Foundation

**Budget:** Rs. 20.00 Lakhs

**Duration:** Dec 2023 – Dec 2024 (1 Year)

### **7. Design and Development of Deep Learning based Smart Microscope to identify Bacteria species**

**Sponsoring Agency:** DST, Govt. of India & IIT Roorkee through iHUB Divyasampark

**Scheme:** Divyasampark iHUB Roorkee for Devices, Materials and Technology Foundation

**Budget:** Rs. 20.00 Lakhs

**Duration:** Dec 2023 – Dec 2024 (1 Year)

## **8. An IoT based smart cow health and oestrous cycle monitoring system**

**Sponsoring Agency:** DST, Govt. of India & IIT Roorkee through iHUB Divyasampark

**Scheme:** Divyasampark iHUB Roorkee for Devices, Materials and Technology Foundation

**Budget:** Rs. 20.00 Lakhs

**Duration:** Dec 2023 – Dec 2024 (1 Year)

## **9. Deep Learning Based Human Emotions Detection For Cognitive State Assessment Using EEG Signals Classifications**

**Sponsoring Agency:** University of Jammu

**Scheme:** Seed Grant

**Budget:** Rs. 2 Lakhs

**Duration:** Jan 2023 – Jan 2025 (1 Year)

## **Laboratories / Technology Infrastructure Established**

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- Technology Convergence Laboratory, Bhaderwah Campus, University of Jammu.
- Augmented Reality / Virtual Reality (AR/VR) Laboratory, School of Innovation, Incubation and Entrepreneurship Development Centre (SIIEDC), University of Jammu.
- Drone Research and Development Laboratory, School of Innovation, Incubation and Entrepreneurship Development Centre (SIIEDC), University of Jammu
- Cyber Forensics Laboratory, School of Innovation, Incubation and Entrepreneurship Development Centre (SIIEDC), University of Jammu
- Electroencephalography (EEG) Laboratory, School of Innovation, Incubation and Entrepreneurship Development Centre (SIIEDC), University of Jammu
- MATLAB and SPSS Computational Laboratory, School of Innovation, Incubation and Entrepreneurship Development Centre (SIIEDC), University of Jammu

## **FELLOWSHIPS, AWARDS SPONSORSHIPS**

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### **Fellowships & Awards**

- Awarded the **UGC Teacher Fellowship** under the Faculty Improvement Programme from 2012 to 2015.
- Received a **Certificate in Cyber Crime Investigation and Digital Forensics** from Ferris State University, College of Business, Information Security and Intelligence.

### **International Travel Sponsorships**

- Sponsored by the **UGC** to attend an International Conference in Hong Kong (2010).
- Sponsored by the **DST** to attend an International Conference in Thailand (2011).
- Sponsored by the **Computer Society of India (CSI)** to attend an International Conference in Singapore (2014).
- Sponsored by the **UGC and DST** to attend an International Conclave in Oman (2015).
- Sponsored by the **CSIR and DST** to attend the International Workshop Reconnect 2017 at Appalachian State University, Boone, NC, USA.
- Sponsored by the **UGC** to attend the International Workshop Reconnect 2018 at Muhlenberg College, Allentown, PA, USA.
- Sponsored by the **INSA** to attend the International Workshop Reconnect 2019 at Champlain College, Burlington, VT, USA.

## COUNTRIES VISITED

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- Visited **Hong Kong, China** to attend and present a research paper in the **International Conference on Computer Aided Manufacturing and Design**, organized by **IEEE** in the year **2010**.
- Visited **Bangkok, Thailand** to attend and present a research paper in the **International Conference on Interdisciplinary Research and Development**, organized by **IEEE Computer Society Thailand** and **Internet Society Thailand** in the year **2011**.
- Visited **Singapore** to attend and present a research paper in the **International Conference on Networking and Information Technology (ICNIT 2014)**, organized by the **International Association of Computer Science and Information Technology (IACSIT)** in the year **2014**.
- Visited **Muscat, Sultanate of Oman** to attend and present a research paper in the **International Conclave in Engineering and Management, Oman Vision 2020: Opportunities and Challenges**, organized by **Waljat College of Applied Sciences** in academic partnership with **Birla Institute of Technology, Ranchi, India** in the year **2015**.
- Visited **Muscat, Sultanate of Oman** to act as **Rapporteur** in the **International Conclave in Engineering and Management, Oman Vision 2020: Opportunities and Challenges**, organized by **Waljat College of Applied Sciences** in academic partnership with **Birla Institute of Technology, Ranchi, India** in the year **2015**.
- Visited **Boone, NC, USA** to attend the **Reconnect 2017 Workshop** at the **Center for Discrete Mathematics & Theoretical Computer Science (DIMACS)** and the **Department of Homeland Security Center of Excellence (CCICADA)**, held at **Appalachian State University**.
- Visited **Allentown, PA, USA** to attend the **Reconnect 2018 Workshop** at the **Center for Discrete Mathematics & Theoretical Computer Science (DIMACS)** and the **Department of Homeland Security Center of Excellence (CCICADA)**, held at **Muhlenberg College**.
- Visited **Burlington, VT, USA** to attend the **Reconnect 2019 Workshop** at the **Center for Discrete Mathematics & Theoretical Computer Science (DIMACS)** and the **Department of Homeland Security Center of Excellence (CCICADA)** of **Rutgers State University, New Jersey**, held at **Champlain College**.
- Visited **Lulea, Sweden** to attend a **research workshop** at **Lulea University of Technology** during **February 2023** (from **20.02.2023** to **02.03.2023**), sponsored by University of Jammu under the RUSA 2.0 Scheme.
- Visited **Lulea, Sweden** to participate in a **two weeks research workshop** at **Lulea University of Technology** during **November 2024** (from **18.11.2024** to **30.11.2024**).

## RESEARCH EXPERIENCE (Publication & Presentation in Conferences)

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1. Research paper presented and published in the Proceedings “**Performance Evaluation of Educational Websites Using Web Diagnostic Tool: A Case Study of J&K**” at the **2010 International Conference on Computer Aided Manufacturing and Design**, Hong Kong, China, Nov 1–2, 2010.
2. Research paper presented on “**Artificial Intelligence**” at **Priyadarshni Institute of Management Studies**, Kala Gham, Jammu, J&K, Dec 11, 2010.
3. Research paper presented and published in the Proceedings “**Critical Evaluation of E-Government Website Design**” in the **5th National Conference on Computing for Nation Development, BVI-CAM**, New Delhi, Mar 10–11, 2011.

4. Research paper presented and published Extended Abstract “**Cross Browser Compatibility of E-Government Websites**” in the **5th National Conference on Computing for Nation Development**, BVICAM, New Delhi, **Mar 10–11, 2011**.
5. Research paper presented and published online “**E-Governance**” in the **1st International Conference on Interdisciplinary Research and Development (INRIT 2011)**, Bangkok, Thailand, organised by IEEE Computer Society Thailand and Internet Society Thailand, **Jun 1, 2011**.
6. Research paper “**Educational Web Sites Accessibility Design Model**” presented and published in **ACM Digital Library** and in the Proceedings of the **International Conference on Advances in Computing and Artificial Intelligence**, Chitkara University, Punjab, **Jul 21–22, 2011**.
7. Research paper “**Comparative Study of Web Development Process Models**” published in the Proceedings of the **International Conference on Issues and Challenges in Networking, Intelligence and Computing Technologies**, KIET Ghaziabad, India, **Sep 2–3, 2011**.
8. Research paper presented and published in the Proceedings “**Use of Disciplined Web Engineering Approach over Software Engineering towards Web Application Development**” in the **6th National Conference on Computing for Nation Development**, BVICAM, New Delhi, **Feb 23–24, 2012**.
9. Research paper presented on **E-Waste** in the **UGC Sponsored National Conference on Environmental Issues and Challenges**, **Oct 4–5, 2012**.
10. Research paper accepted for presentation and publication “**E-Government Websites Compatibility Across Different Browsers**” in the **7th National Conference on Computing for Nation Development**, BVICAM, New Delhi, **Mar 7–8, 2013**.
11. Presented paper “**Design Issues in E-Government Websites**” in the **1st International Conference on Emerging Trends in Engineering & Applied Sciences**, Rajasthan College of Engineering for Women, **Dec 27–28, 2013**.
12. Presented research paper in the **Regional Seminar on IT, Computer Research and Development – Emerging Paradigms in Modern World**, Bhaderwah Campus, **Nov 16, 2013**.
13. Presented research paper “**Comparative Study of Cross Browser Compatibility as Design Issue in Various Websites**” in the **International Conference on Networking and Information Technology (ICNIT 2014)**, Singapore, **Nov 21–23, 2014**.
14. Presented research paper “**Challenges in Website Design**” in the **National Conference on Recent Innovation and Advancement in Information Technology (RIAIT 2014)**, BGSBU Rajouri, **Nov 26–27, 2013**.
15. Presented research paper “**Website Design Issues**” in the **National Conference on Recent Innovation and Advancement in Information Technology (RIAIT 2014)**, BGSBU Rajouri, **Nov 26–27, 2013**.
16. Paper published as Proceedings “**Comparative Study of Feedback as Design Issues in Various Websites**” in the **National Conference on Recent Innovation and Advancement in Information Technology (RIAIT 2014)**, BGSBU Rajouri, **Nov 26–27, 2014**.
17. Paper published as Proceedings “**Big Data – Issues, Research and Implementations**” in the **National Conference on Recent Innovation and Advancement in Information Technology (RIAIT 2015)**, BGSBU Rajouri, **Nov 26–27, 2015**.
18. Research paper accepted for presentation and publication “**Comparative Study of Website Sitemap Feature as Design Issue in Various Websites**” in the **9th INDIACOM; 2nd International Conference (INDIACOM-2015 IEEE Conference) on Computing for Sustainable Global Development**, BVICAM, New Delhi, **Mar 11–13, 2015**.

19. Presented paper “**Use of ICT to Solve Livelihood Problems in Rural Areas**” in the **International Conference organized by Institute of Mountain Environment**, University of Jammu, **2015**.
20. Presented paper “**Comparative Study of Colour Combination as Design Issue in Various Websites**” in the **National Conference on Trends in Electronics and Computational Technologies**, IETE Jammu Center & Ramnagar Campus, University of Jammu, **Mar 20, 2015**.
21. Presented paper “**Impact of Colour Combination in Website Accessibility**” in the **International Conclave in Engineering and Management Oman Vision 2020: Opportunities and Challenges**, Waljat College of Applied Sciences, Muscat (Oman), **Feb 24–25, 2016**.
22. Presented paper “**Comparative Study of Feedback as Design Issues in Various Websites**” in the **International Conference on Emerging Trends in Expert Applications and Security (ICETEAS 2018)**, Jaipur Engineering College & Research Centre, in collaboration with Springer, **Feb 17–18, 2018**.
23. Presented paper “**A Comparative Analysis to Visualize the Behavior of Different Machine Learning Algorithm for Normalized and Un-normalized Data in Predicting Alzheimer’s Disease**” in the **International Conference on Recent Trends in Computer Applications and Information Technology (RTCAIT 2019)**, Maharishi Makendeshwar University, Haryana, in collaboration with Springer & CSI, **Apr 19–20, 2019**.

## **RESEARCH EXPERIENCE (Conferences Proceedings as Book Chapter)**

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1. Paper titled “**Cellular Level Based Deep Learning Framework for Early Detection of Dysplasia in Oral Squamous Epithelium**”, published in **Lecture Notes in Electrical Engineering (Vol. 597)**, Springer Nature Switzerland, **Feb 2020**. DOI: [https://doi.org/10.1007/978-3-030-29407-6\\_12](https://doi.org/10.1007/978-3-030-29407-6_12).
2. Paper titled “**Comparative Study of Different Machine Learning Techniques in the Diagnosis of Dementia**”, published in **Rising Threats in Expert Applications and Solutions, Proceedings of FICR-TEAS 2020, Oct 2020**. DOI: [https://doi.org/10.1007/978-981-15-6014-9\\_12](https://doi.org/10.1007/978-981-15-6014-9_12).
3. Paper titled “**Ensemble Feature Extraction-Based Detection of Abnormal Mass Present in Medical Images Using Machine Learning**”, published in **Rising Threats in Expert Applications and Solutions, Proceedings of FICR-TEAS 2020, Oct 2020**. DOI: [https://doi.org/10.1007/978-981-15-6014-9\\_28](https://doi.org/10.1007/978-981-15-6014-9_28).
4. Paper titled “**Cervical Cell Cytoplasm Extraction Algorithm**”, published in **Rising Threats in Expert Applications and Solutions, Jan 2021**. DOI: [https://doi.org/10.1007/978-981-15-6014-9\\_62](https://doi.org/10.1007/978-981-15-6014-9_62).
5. Paper titled “**Hybrid System Based on Genetic Algorithm and Neuro-Fuzzy Approach for Neurodegenerative Disease Forecasting**”, published in **Proceedings of Data Analytics and Management, Jan 2022**. DOI: [https://doi.org/10.1007/978-981-16-6289-8\\_27](https://doi.org/10.1007/978-981-16-6289-8_27).
6. Paper titled “**Hierarchical Clustering Based Characterization of Protein Database Using Molecular Dynamic Simulation**”, published in **Recent Innovations in Computing, Mar 2022**. DOI: [https://doi.org/10.1007/978-981-16-8248-3\\_35](https://doi.org/10.1007/978-981-16-8248-3_35).
7. Paper titled “**An Intelligent Species Level Deep Learning-Based Framework in Automatic Classification of Microscopic Bacteria Images**”, published in **Innovations in Computational Intelligence and Computer Vision, May 2022**. DOI: [https://doi.org/10.1007/978-981-19-0475-2\\_52](https://doi.org/10.1007/978-981-19-0475-2_52).
8. Paper titled “**Characterization of Molecular Dynamic Trajectory Using K-means Clustering**”,

- published in **Rising Threats in Expert Applications and Solutions (LNNS, Vol. 434)**, Springer Singapore, Jul 2022. DOI: [https://doi.org/10.1007/978-981-19-1122-4\\_4](https://doi.org/10.1007/978-981-19-1122-4_4).
9. Paper titled “Deep Learning Based Classification of Microscopic Fungal Images”, published in **Rising Threats in Expert Applications and Solutions (LNNS, Vol. 434)**, Springer Singapore, Jul 2022. DOI: [https://doi.org/10.1007/978-981-19-1122-4\\_4](https://doi.org/10.1007/978-981-19-1122-4_4).
  10. Paper titled “A Comparative Study of Different Machine Learning Based Feature Extraction Techniques in Bacterial Image Classification”, published in **Rising Threats in Expert Applications and Solutions (LNNS, Vol. 434)**, Springer Singapore, Jul 2022. DOI: [https://doi.org/10.1007/978-981-19-1122-4\\_4](https://doi.org/10.1007/978-981-19-1122-4_4).
  11. Paper titled “Machine Learning Techniques for the Diagnosis of Disc Disorders: Comparative Analysis”, published in **14th International Conference on Soft Computing and Pattern Recognition (SoCPaR 2023)**, LNNS Vol. 648, Springer Nature, Switzerland, Mar 28, 2023. DOI: [https://doi.org/10.1007/978-3-031-27524-1\\_47](https://doi.org/10.1007/978-3-031-27524-1_47).
  12. Paper titled “A Survey on Different Security Frameworks and IDS in Internet of Things”, published in **International Conference on Recent Innovations in Computing (LNEE, Vol. 1001)**, Springer Nature, Singapore, May 3, 2023. DOI: [https://doi.org/10.1007/978-981-19-9876-8\\_17](https://doi.org/10.1007/978-981-19-9876-8_17).
  13. Paper titled “Deep Learning Based Approach in Automatic Microscopic Bacterial Image Classification”, published in **International Conference on Emerging Trends in Expert Applications & Security (LNNS, Vol. 682)**, Springer Nature, Singapore, Jun 30, 2023. DOI: [https://doi.org/10.1007/978-981-99-1946-8\\_1](https://doi.org/10.1007/978-981-99-1946-8_1).
  14. Paper titled “Deep Learning-Based Recognition and Classification of Different Network Attack Patterns in IoT Devices”, published in **International Conference on Emerging Trends in Expert Applications & Security (LNNS, Vol. 682)**, Springer Nature, Singapore, Jun 30, 2023. DOI: [https://doi.org/10.1007/978-981-99-1946-8\\_2](https://doi.org/10.1007/978-981-99-1946-8_2).
  15. Paper titled “Deep Neural Based Learning of EEG Features Using Spatial, Temporal and Spectral Dimensions Across Different Cognitive Workload of Human Brain: Dimensions, Methodologies, Research Challenges and Future Scope”, published in **International Conference on Emerging Trends in Expert Applications & Security (LNNS, Vol. 682)**, Springer Nature, Singapore, Jun 30, 2023. DOI: [https://doi.org/10.1007/978-981-99-1946-8\\_7](https://doi.org/10.1007/978-981-99-1946-8_7).
  16. Paper titled “A Framework for Classification of Nematodes Species Using Deep Learning”, published in **International Conference on Emerging Trends in Expert Applications & Security (LNNS, Vol. 682)**, Springer Nature, Singapore, Jun 30, 2023. DOI: [https://doi.org/10.1007/978-981-99-1946-8\\_8](https://doi.org/10.1007/978-981-99-1946-8_8).

## **RESEARCH EXPERIENCE (Publication in Journals)**

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1. Research paper “A Case Study of Colour Combination Issues in Various Websites”, published in **International Journal of Computer Applications**, 48(25):15–17, June 2012. Published by **Foundation of Computer Science**, New York, USA. ISBN: 973-93-80869-24-2.
2. Research paper “Data Mining in E-Education Websites”, published in **International Journal of Engineering & Science Research**, Vol. 3, Issue 5, pp. 3054–3060, May 2013. ISSN: 2277-2685.
3. Research paper “Web Engineering: A Multidisciplinary Approach for Web Development”, published in **International Journal of Research in Computer Engineering and Electronics**, Vol. 2, Issue 3, June 2013. ISSN: 2319-376X.
4. Research paper “Time-Space Analysis in Programming Languages”, published in **IMS Manthan**

(The Journal of Management, Computer Sciences & Journalism), Vol. 8, Issue 1, 2013. ISSN: 0974-7141 (print), 0976-1713 (online).

5. Research paper “**A Study of Factors Affecting Websites Page Loading Speed for Efficient Web Performance**”, published in **International Journal of Computer Sciences and Engineering**, Vol. 1, Issue 3, 2013. E-ISSN: 2347-2693.
6. Research paper “**Analysis on Design Issues of Educational Website Standards**”, published in **International Journal of Engineering Research and Applications**, Vol. 4, Issue 2, pp. 499–502, Feb 2014. ISSN: 2248-9622.
7. Research paper “**Impact of Cultural Diversities on Website Design**”, published in **International Journal of Computer Technology and Applications**, Vol. 5(1), pp. 334–337, Mar–Apr 2014. ISSN: 2229-6093.
8. Research paper “**Analysis on Design Issues of E-Government Websites of India**”, published in **International Journal of Advanced Research in Computer Science & Software Engineering**, Vol. 4, Issue 2, pp. 646–650, Feb 2014. ISSN: 2277-128X.
9. Research paper “**An Overview of Website Design Issues**”, published in **International Journal of Research in Engineering Technology and Management**, Special Issue, June 2014. ISSN: 2347-7539.
10. Research paper “**Comparative Study of Website Security as Design Issue in Various Websites**”, published in **International Journal of Computer Application**, Vol. 5, Issue 4, Sep–Oct 2014. ISSN: 2250-1797.
11. Research paper “**Comparative Study of Hyperlinks as Design Issue in Various Websites**”, published in **International Journal of Advanced Scientific and Technical Research**, Vol. 5, Issue 4, Sep–Oct 2014. ISSN: 2249-9954.
12. Research paper “**Comparative Study of Website Page Size as Design Issue in Various Websites**”, published in **I.J. Information Engineering and Electronic Business**, Vol. 6, pp. 33–39, Dec 2014. DOI: 10.5815/ijieeb.2014.06.04.
13. Research paper “**Comparative Study of Website Sitemap Feature as Design Issue in Various Websites**”, published in **I.J. Engineering and Manufacturing**, Vol. 3, pp. 22–28, Dec 2014. DOI: 10.5815/ijem.2014.03.03.
14. Research paper “**Comparative Study of Cross Browser Compatibility as Design Issue in Various Websites**”, published in **BIJIT - BVICAM's International Journal of Information Technology**, Vol. 7, No. 1, pp. 1–10, 2015. ISSN: 0973-5658.
15. Research paper “**Comparative Study of Page Loading Speed as Design Issue in Various Websites**”, published in **International Research Journal of Engineering and Technology**, Vol. 2, Issue 4, Jul 2015. e-ISSN: 2395-0056, p-ISSN: 2395-0075.
16. Research paper “**Design and Development of Automated Tool to Study Sitemap as Design Issue in Websites**”, published in **IEEE**, 2015. ISBN: 978-9-3805-4416-8.
17. Research paper “**Comparative Study of Feedback as Design Issue in Various Websites**”, published in **International Journal of Computer Application**, Vol. 5, No. 4, Jun 2015. ISSN: 2250-1797.
18. Research paper “**Artificial Intelligence for Big Data: Potential and Relevance**”, published in **International Academy of Engineering and Medical Research**, Vol. 1, Issue 1, Oct–Nov 2016. ISSN: 2395-3826.
19. Research paper “**Investigation of Different Constraints in Cybercrime & Digital Forensics**”, published in **International Journal of Advanced Research in Computer Science & Software Engi-**

- neering**, Vol. 7, Issue 7, pp. 222–227, Jul 2017. ISSN: 2277-128X.
- 20. Research paper “**Initial Framework for Website Design and Development**”, published in **International Journal of Information Technology**, 2017. DOI: 10.1007/s41870-017-0045-4. Published by **Springer**, indexed in **SCOPUS**.
  - 21. Research paper “**An Empirical Study on Potential and Risks of Twitter Data for Predicting Election Outcomes**”, published in **Springer Nature Singapore**, Advances in Intelligent Systems and Computing 841, 2019. DOI: 10.1007/978-981-13-2285-3\_85.
  - 22. Research paper “**A Case Study of Feedback as Website Design Issue**”, published in **Springer Nature Singapore**, Advances in Intelligent Systems and Computing 841, 2019. DOI: 10.1007/978-981-13-2285-3\_55.
  - 23. Research paper “**Automated Intelligent Diagnostic Liver Disorders Based on Adaptive Neuro-Fuzzy Inference System and Fuzzy C-Means Techniques**”, published in **Mody University International Journal of Computing and Engineering Research**, Vol. 2(2), pp. 86–91, 2018.
  - 24. Brief Paper: “**Evaluation of Subtractive Clustering Based Adaptive Neuro-Fuzzy Inference System with Fuzzy C-Means Based ANFIS System in Diagnosis of Alzheimer**”, published in **Journal of Multimedia Information System**, Vol. 6(2), pp. 87–90, Jun 2019. DOI: 10.33851/JMIS.2019.6.2.87.
  - 25. Research paper “**Tissue Level Based Deep Learning Framework for Early Detection of Dysplasia in Oral Squamous Epithelium**”, published in **Journal of Multimedia Information System**, Vol. 6(2), pp. 81–86, Jun 2019. DOI: 10.33851/JMIS.2019.6.2.81.
  - 26. Research paper “**Comparative Study to Measure the Performance of Commonly Used Machine Learning Algorithms in Diagnosis of Alzheimer’s Disease**”, published in **Journal of Multimedia Information System**, Vol. 6(2), pp. 75–80, Jun 2019. DOI: 10.33851/JMIS.2019.6.2.75.
  - 27. Research paper “**A Comparative Analysis to Visualize the Behavior of Different Machine Learning Algorithms for Normalized and Un-Normalized Data in Predicting Alzheimer’s Disease**”, published in **Journal of Computational and Theoretical Nanoscience**, Vol. 16(9), Sep 2019. DOI: 10.1166/jctn.2019.825.
  - 28. Research paper “**Performance Evaluation of Machine Learning Techniques for Mustard Crop Yield Prediction from Soil Analysis**”, published in **Journal of Scientific Research**, Vol. 64(2), Jan 2020. DOI: 10.37398/JSR.2020.640254.
  - 29. Research paper “**Segmentation of Cervical Cells for Automated Screening of Cervical Cancer: A Review**”, published in **Artificial Intelligence Review**, Vol. 53(2), Apr 2020. DOI: 10.1007/s10462-019-09735-2.
  - 30. Research paper “**Comparison and Analysis of Machine Learning Techniques for the Prediction of Acute Appendicitis**”, published in **Journal of Applied Information Science**, Vol. 8(1), pp. 14–21, Jun 2020.
  - 31. Research paper “**Applications of Big Data Analytics in the Field of Medical Diagnosis: A Review**”, published in **IJSRCSEIT**, Vol. 5, Issue 3, Jul 2020. DOI: 10.32628/CSEIT1953142.
  - 32. Research paper “**Usage and Implementation of Neuro-Fuzzy Systems for Classification and Prediction in the Diagnosis of Different Types of Medical Disorders: A Decade Review**”, published in **Artificial Intelligence Review**, Vol. 53(1), Oct 2020. DOI: 10.1007/s10462-020-09804-x.
  - 33. Research paper “**Recognition of Handwritten Currency Symbols using Fuzzy Inference System**”, published in **IJRASET**, May 2021. DOI: 10.22214/ijraset.2021.34380.
  - 34. Research paper “**Performance Evaluation of SVM and Random Forest for the Diagnosis of Thyroid Disorder**”, published in **IJRASET**, May 2021. DOI: 10.22214/ijraset.2021.34381.
  - 35. Research paper “**Recognition of Dry Fruits using Deep Convolutional Neural Network**”, pub-

lished in IJRASET, May 2021. DOI: 10.22214/ijraset.2021.34415.

36. Research paper “**Machine Learning and Deep Learning Based Computational Approaches in Automatic Microorganisms Image Recognition: Methodologies, Challenges, and Developments**”, published in **Archives of Computational Methods in Engineering**, Aug 2021. DOI: 10.1007/s11831-021-09639-x.
37. Research paper “**Improved Classification of Cancerous Histopathology Images using Color Channel Separation and Deep Learning**”, published in **Journal of Multimedia Information System**, Vol. 8(3), pp. 175–182, Sep 2021. DOI: 10.33851/JMIS.2021.8.3.175.
38. Research paper “**Exploring Artificial Intelligence in Drug Discovery: A Comprehensive Review**”, published in **Archives of Computational Methods in Engineering**, Oct 2021. DOI: 10.1007/s11831-021-09661-z.
39. Research paper “**Automated Bacterial Classifications Using Machine Learning Based Computational Techniques: Architectures, Challenges and Open Research Issues**”, published in **Archives of Computational Methods in Engineering**, Oct 2021. DOI: 10.1007/s11831-021-09660-0.
40. Research paper “**A Review on Automated Cancer Detection in Medical Images Using Machine Learning and Deep Learning Based Computational Techniques: Challenges and Opportunities**”, published in **Archives of Computational Methods in Engineering**, Nov 2021. DOI: 10.1007/s11831-021-09676-6.
41. Research paper “**Classification of Spices using Machine Learning Techniques**”, published in **International Journal of Knowledge Based Computer Systems**, Vol. 10(1), pp. 27–32, Jan 2022.
42. Research paper “**Mango Leaf Diseases Detection using Deep Learning**”, published in **International Journal of Knowledge Based Computer Systems**, Vol. 10(1), pp. 40–44, Jan 2022.
43. Research paper “**Hybrid Feature Extraction Based Ensemble Classification Model to Diagnose Oral Carcinoma Using Histopathological Images**”, published in **Journal of Scientific Research**, Vol. 66(3), 2022. DOI: 10.37398/JSR.2022.660327.
44. Research paper “**Discovery of EGFR Kinase’s T790M Variant Inhibitors through Molecular Dynamics Simulations, PCA-Based Dimension Reduction, and Hierarchical Clustering**”, published in **Structural Chemistry**, May 2022. DOI: 10.1007/s11224-022-01967-3.
45. Research paper “**Deep Learning-Based Diagnosis of Disc Degenerative Diseases Using MRI: A Comprehensive Review**”, published in **Computers and Electrical Engineering**, 2022. DOI: 10.1016/j.compeleceng.2022.108524.
46. Research paper “**Advances Towards Automatic Detection and Classification of Parasites Microscopic Images Using Deep Convolutional Neural Network: Methods, Models and Research Directions**”, published in **Archives of Computational Methods in Engineering**, Dec 2022. DOI: 10.1007/s11831-022-09858-w.
47. Research paper “**Hybrid Model Based on ANFIS with Gray Level Co-occurrence Matrix for Dementia Prediction**”, published in **Journal of Scientific Research**, Vol. 15(2), May 2023. DOI: 10.3329/jsr.v15i2.61672.
48. Research paper “**Bagged Based Ensemble Model to Predict Thyroid Disorder Using Linear Discriminant Analysis with SMOTE**”, published in **Research on Biomedical Engineering**, Vol. 39(3), pp. 733–746, Sep 2023. DOI: 10.1007/s42600-023-00307-6.
49. Research paper “**Machine Learning and Deep Learning Based Hybrid Feature Extraction and Classification Model Using Digital Microscopic Bacterial Images**”, published in **SN Computer Science**, Vol. 4, Article No. 687, Sep 2023. DOI: 10.1007/s42979-023-02138-9.
50. Book chapter “**Tagging of Uterine Cervix Cases at Cell and Slide Level Through Transfer Learn-**

- ing”, published in **Universal Threats in Expert Applications and Solutions**, Springer Nature Singapore, **2024**. DOI: 10.1007/978-981-97-3810-6\_9.
51. Research paper “**Transfer Learning Techniques to Classify Nematodes Species**”, published in **Journal of Scientific Research**, Vol. 16, Issue 3, pp. 713–721, **2024**. DOI: 10.3329/jsr.v16i3.71075.
  52. Research paper “**DLIIoT: A Deep Learning based Intelligent Attack Detection in IoT Networks using Cooja Simulator**”, published in **Journal of Scientific Research**, Vol. 17, Issue 1, pp. 177–193, **2025**. DOI: 10.3329/jsr.v17i1.74612.
  53. Research paper “**Classification of 2D MRI Brain Images Using Traditional Machine Learning Algorithms on PCA Extracted Feature Set**”, published in **International Journal of All Research Education & Scientific Methods**, Vol. 13, Issue 02, pp. 432–439, **2025**. DOI: 10.56025/IJARESM.2025.130225432.
  54. Research paper “**IoT attack detection in Edge-IIoT dataset using Stacked LSTM model**”, published in **Authorea**, February 19, 2025. DOI: 10.22541/au.173995569.94718399/v1.
  55. Research paper “**Study and Analysis of Various Optimisation Techniques for Sentiment Classification: A Challenging Overview**”, published in **International Journal of Wireless and Mobile Computing (IJWMC)**, Vol. 29(1), pp. 42–55, **2025**. DOI: 10.1504/IJWMC.2025.147630.
  56. Research paper “**Plant Parasitic Nematodes Classification using Pre-trained CNN Models ResNet50 and VGG16**”, published in **Journal of Scientific Research**, Vol. 17(3), pp. 809–819, **2025**. DOI: 10.3329/jsr.v17i3.79068.
  57. Research paper “**Robust EEG-Based Emotion Recognition using CNN: A High-Accuracy Approach with Differential Entropy Features and Spatial-Frequency Domain Analysis on the SEED Dataset**”, published in **Journal of Scientific Research**, Vol. 17(3), pp. 777–787, **2025**. DOI: 10.3329/jsr.v17i3.78907.
  58. Research paper “**Deep Learning Based Automated Classification of Plant-Parasitic Nematodes Using a Proposed CNN Model and Pre-Trained Networks: MobileNetV3, VGG16, and InceptionV3**”, published in **Proceedings of the ACM**, **2025**. DOI: 10.1007/s42979-025-04239-z.

## **BOOKS / CHAPTER PUBLISHED**

1. **Book published as Author in Computer Networks:** “*Essentials of Computer Networks and Data Communication*” published by National Publisher.
2. **Book published as Author in Web Based Systems:** “*Design and Development Issues in Websites*” published by International German Publisher LAMBERT Academic Publishing with ISBN 978-3-659-86878-8 in the year 2016.
3. **Book published as Author on Website Design Issues:** “*Impact of Colour Combinations in Website Accessibility*” published by International German Publisher LAMBERT Academic Publishing with ISBN 978-3-659-96137-8 in the year 2016.
4. **Book published as Editor:** “*Proceedings of National Conference on Recent Trends and Technologies in Data sciences and Artificial Intelligence August 26-27, 2016*” with ISBN 978-93-5112-284-4 in the year 2016.
5. **Book Chapter published:** “*ICT in Healthcare*” in Book Titled “*The Stances of e-Government: Policies, Processes and Technologies*” published by Taylor & Francis CRC Press, Taylor & Francis Group, Boca Raton, London, New York with ISBN 978-1-138-30490-9 in the year 2019.
6. **Book Chapter Published:** “*Implementation of Intrusion Detection System for Internet of Things Using Machine Learning Techniques*” in January, 2021, 10.1007/978-981-15-8711-5\_11 in book: *Multimedia Security*.

7. **Book Chapter Published:** “Machine Learning-Based Hybrid Model for Wheat Yield Prediction” in February, 2023, <https://doi.org/10.1002/9781119865513.ch7> in book: *Machine Intelligence, Big Data Analytics, and IoT in Image Processing: Practical Applications*. Published by Wiley.

## EVENT ORGANIZATION (CONFERENCES, FDPs WORKSHOPS)

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1. **In-charge Head:** Organized a two-day UGC Sponsored National Conference on “*Recent Trends in Information Technology and its Application in Industry*,” Department of Computer Science & IT, Bhaderwah Campus, September 25–26, 2011.
2. **Coordinator:** Organized a Regional Seminar at Bhaderwah Campus, University of Jammu, May 12, 2012.
3. **Organizing Secretary & I/c Head:** Organized a two-day National Conference on “*Recent Trends and Technologies in Data Sciences & Artificial Intelligence*,” sponsored by UGC, DST, SERB, and DIETY, August 26–27, 2016.
4. **Convener:** Organized a one-week Faculty Development Programme on “*Pattern Recognition and Image Processing Using Machine Learning Techniques*,” in collaboration with E&ICT Academy, IIT Roorkee, May 25–29, 2018.
5. **Coordinator:** Organized a one-week Faculty Development Programme on “*Data Analytics and Data Science*,” in collaboration with E&ICT Academy, IIT Roorkee, September 10–15, 2018.
6. **Convener:** Organized a one-week Faculty Development Programme on “*Data Analytics Using PYTHON*,” in collaboration with E&ICT Academy, IIT Roorkee, May 7–12, 2019.
7. **Convener:** Organized a two-week SERB-funded Summer School on “*Computer Vision for Live Object Detection using Open Source Tools*” under the KARYASHALA Scheme, Department of Computer Science and IT, Bhaderwah Campus, July 4–15, 2022.
8. **Convener:** Organized a four-week SERB-funded Internship on “*Digital Image Processing and Data Modelling Tools for Healthcare/Satellite Imagery*” under the Vritika Scheme, Department of Computer Science and IT, Bhaderwah Campus, July 4–29, 2022.
9. **Convener:** Organized a one-week FDP/Workshop on “*Real World Scientific and Numeric Computing using Deep Learning with Python*,” in collaboration with iHUB DivyaSampark, IIT Roorkee, November 7–11, 2022.
10. **Convener:** Organized a five-day workshop on “*Machine Learning, Theory and Application with a Special Focus on Electroencephalography, Document & Sign Gestures Analysis*,” in collaboration with iHUB DivyaSampark IIT Roorkee, MMTTC University of Jammu & LTU, Sweden, December 19–23, 2023.
11. **Coordinator:** Organised 6 Days workshop on *Cybersecurity and AI* at University of Jammu, by MTTC, University of Jammu in collaboration with SIIEDC, University of Jammu, August 11-17,2025.

## EVENTS ORGANIZED

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1. Organized **04 Days Youth Festival** as **Programme Coordinator** in collaboration with **Indian Army (4RR)**, where the colleges of entire Chenab Valley participated in various sports, cultural, and academic activities at **Bhaderwah Campus, University of Jammu**, from **Nov 28 – Dec 1, 2015**.
2. Organized **03 Days Youth Festival “Sangam”** as **Programme Coordinator** in collaboration with **Indian Army (4RR)**, where the colleges of entire Chenab Valley participated in various sports, cultural, snow, and academic activities at **Bhaderwah Campus, University of Jammu**, from **Jan 23 – 25, 2017**.

3. Organized **NET/SET Coaching in Computer Applications** in collaboration with **Department of Life Long Learning, University of Jammu**, during **March and August 2017**.
4. Organized **01 Day Tech Fest–2017** as **Programme Convener** in collaboration with **Computer Society of India (CSI)** and **Indian Army (4RR)**, where colleges of entire Chenab Valley participated in Tech Quiz, Tech Debate, and Programming Skill Competition at **Bhaderwah Campus, University of Jammu**, on **Aug 21, 2017**.
5. Organized **05 Days Youth Festival** as **Programme Coordinator** in collaboration with **Indian Army (4RR)**, where the colleges of entire Chenab Valley participated in various sports, cultural, and academic activities at **Bhaderwah Campus, University of Jammu**, from **Sep 11 – 15, 2017**.
6. Organized **10 Days IT Tour** for the students of **Bhaderwah Campus, University of Jammu**, to **Infosys Campus** and **Mediassist Campus**, Bangalore, from **May 5 – 15, 2018**.
7. Organized **05 Days Youth Festival** as **Programme Coordinator** in collaboration with **Indian Army (4RR)**, where the colleges of entire Chenab and Kashmir Valley participated in various sports, cultural, and academic activities at **Bhaderwah Campus, University of Jammu**, from **Sep 5 – 9, 2018**.

## **LECTURE DELIVERED / SESSION CHAIR IN SEMINARS / CONF.**

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1. **Delivered Lecture** on “Role and Importance of Websites” in the **1st International Conference on Emerging Trends in Engineering & Applied Sciences**, Rajasthan College of Engineering for Women, Dec 27–28, 2013.
2. **Chaired Technical Session** in **Data Communication and Computer Networks** during the **Regional Seminar on Information Technology, Computer Research and Development – Emerging Paradigms in Modern World**, Bhaderwah Campus, Nov 16, 2013.
3. **Delivered Four Lectures** in the **Refresher Course in Computer Sciences**, organized by the **Department of Computer Sciences and IT** in collaboration with the **UGC Academic Staff College, University of Jammu**.
4. **Appointed as Rapporteur** in the **International Conclave in Engineering and Management: Oman Vision 2020 – Opportunities and Challenges**, organized by **Waljat College of Applied Sciences, Muscat, Sultanate of Oman** in academic partnership with **Birla Institute of Technology, Ranchi, India**, Feb 24–25, 2016.
5. **Delivered Invited Talk** on “Cyber Crime and Digital Forensics” at the **UGC Interdisciplinary National Conference on Humanities and Social Sciences**, Government Degree College Rajouri, Mar 15–16, 2017.
6. **Delivered Invited Talk** on “Cyber Crime and Digital Forensics” at the **Workshop on Use of Computer Applications in Social Science Research**, jointly organized by the **Social Science Research Center & Department of Life Long Learning, University of Rajasthan, Jaipur**, Nov 6–12, 2017. (Talk delivered on Nov 11, 2017).
7. **Session Chaired and Delivered Invited Talk** in the **International Conference on Emerging Trends in Expert Applications and Security (ICETEAS 2018)**, organized by **Jaipur Engineering College & Research Centre, Jaipur** in collaboration with **Springer**, Feb 17–18, 2018.
8. **Delivered Invited Talk as Resource Person** in the **One-Day Workshop on Computer Literacy & Research Methodology**, organized by the **Internal Quality Assurance Cell (IQAC)**, Government Degree College Samba in collaboration with the **Department of Computer Applications**, Mar 18, 2019.

9. Delivered Invited Talk as Resource Person in the **2nd Session of J&K Science Teachers Congress**, catalyzed and supported by the **J&K State Science, Technology & Innovation Council**, Mar 25–27, 2019.

## COMMITTEE MEMBER IN CONFERENCE / SEMINARS

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1. Organizing Committee member in **International Conference on Emerging Trends in Engineering & Applied Sciences** at Rajasthan College of Engineering for Women from **27th to 28th December 2013**.
2. Member Advisory Committee in **National Conference on Recent Innovations and Advancements in Information Technology (RIAIT 2014)** held on **26–27 November, 2014** at Department of Information Technology Baba Ghulam Shah Badhshah University Rajouri (BGSBU).
3. Technical Committee Member in **COMMUNE-2015, International Conference in Electronics Engineering** held from **16th to 18th March, 2015** at University of Kashmir, Srinagar.
4. Member Advisory Committee in one day **UGC Sponsored National Seminar on Emerging Trends in Data Sciences & Artificial Intelligence (DS & AI 2016)** organized by Department of Information Technology Baba Ghulam Shah Badhshah University Rajouri (BGSBU) on **26 March, 2016**.
5. Committee Member in **Two Days National Conference on ICT in Agriculture** organized by Institute of Mountaineering Environment (IME), Bhaderwah Campus, University of Jammu on **21–22 November, 2016**.
6. Organizing Secretary at **Two Days National Conference NCTDA 2016** organized by the Department of Computer Sciences & IT of the Bhaderwah Campus on **26th & 27th August, 2018**.
7. Member Advisory Committee in **International Conference on Engineering and Advancement in Technology 2019** to be held at Indira Gandhi Delhi Technical University for Women New Delhi on **20 & 21 June, 2019**.

## SEMINARS ATTENDED

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1. Attended Two Days IETE Zonal Seminar on Trends in Communication Technology on **10th–11th September, 2010** organized by IETE Jammu Center in Collaboration with the Department of Computer Science & IT, University of Jammu and has attended following two workshops on **Advanced Image Processing and Embedded Technology**.
2. Attended and presented talk in one day **UGC Sponsored Regional Seminar on Information Technology, Computer Research and Development Emerging Paradigms in Modern World** organized by Department of Computer Sciences & Information Technology, Bhaderwah Campus, University of Jammu on **16 November, 2013**.
3. Attended and presented paper in one day **UGC Sponsored National Seminar on Emerging Trends in Data Sciences & Artificial Intelligence (DS & AI 2016)** organized by Department of Information Technology, Baba Ghulam Shah Badhshah University (BGSBU), Rajouri on **26 March, 2016**.

## **Reviewer (Journal / Conferences / Books)**

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- Reviewer of the Computer Science Journal “**International Journal of Human Computer Interaction (IJCHI)**”, ISSN (online): 2180-1347, Publication Frequency: Bi-Monthly, Publisher: CSC Journals, Kuala Lumpur, Malaysia.
- Reviewer of the Springer Book “**Applications of Soft Computing for the Web**” written and edited by **Prof. Rashid Ali and Prof. Sufyan Beig**, Department of Engineering, Aligarh Muslim University.
- Editorial Board Member of the **SCIREA Journal of Computer**.

## **PROFESSIONAL MEMBERSHIPS**

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- Life Member, Computer Society of India (CSI) (ID: 1153811)
- Life Member, International Association of Engineers (IAENG) (ID: 109088)
- Member, Computer Science Teachers Association (CSTA)
- Member, International Association of Computer Science and Information Technology (IACSIT)

## **VISITING FACULTY**

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- Department of Information Technology, Baba Ghulam Shah Badshah University (BGSBU), Rajouri.
- Jammu and Kashmir Entrepreneurship Development Institute (JKEDI).

## **SUBJECT EXPERTISE**

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- Data Base Management Systems
- Data Communication & Computer Networks
- Data Mining & Data Warehousing
- Cyber Crime & Digital Forensics
- Artificial Intelligence & Machine Learning

## **REFRESHER COURSE / GENERAL ORIENTATION COURSE**

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1. Completed 04 Weeks General Orientation Course at Academic Staff College, University of Jammu with ‘A’ Grade from **18.06.2008**.
2. Completed Refresher Course in Computer Science & IT at Academic Staff College, University of Jammu with ‘A’ Grade from **28.01.2010 to 17.02.2010**.
3. Completed Refresher Course in Mathematical Sciences at HRDC-UGC, University of Jammu with ‘A’ Grade from **08.12.2015 to 29.12.2015**.
4. Completed Refresher Course in Mathematical Sciences at HRDC-UGC, University of Jammu with ‘A’ Grade from **12.02.2019 to 04.03.2019**.
5. Completed Refresher Course in Mathematical Sciences at HRDC-UGC, University of Jammu with ‘A’ Grade from **04.01.2021 to 17.01.2021**.

## **WORKSHOPS / TEACHER TRAINING / FACULTY IMPROVEMENT**

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1. Attended Two Days Teacher Training Programme at Govt. College for Women, Gandhi Nagar, Jammu organized by College Development Council, University of Jammu on 23rd–24th July, 2005.
2. Attended Two Days Workshop in the Internal Audit Training Programme on Quality Management System under ISO 9001:2008 held from 21st–22nd November, 2009 at Bhaderwah Campus, University of Jammu organized by Directorate of Internal Quality Assurance, University of Jammu.
3. Attended Workshop on Introduction to Natural Language Processing at P.G. Department of Dogri, University of Jammu organized by the Linguistic Data Consortium for Indian Languages, Central Institute of Indian Languages, Mysore on 7th–9th January, 2013.
4. Attended 10 Days Short Term Course on Research Methodology from 3rd–12th June, 2013 at Baba Ghulam Shah Badhshah University, Rajouri, organized by Indian Council for Social Science Research.
5. Attended 02 Weeks Workshop on Research Methodology from 3rd–16th July, 2013 at Govt. Post Graduate College, Rajouri, organized by Indian Council for Social Science Research.
6. Attended 01 Week Workshop from 30th September–04th October, 2013 on Accountability and Responsiveness in Scientific Organization at Academy of Human Excellence, Baroda, Gujarat organized by Govt. of India, DST under National Programme for Training to Scientists and Technologists working in Government Sector.
7. Attended One Week Faculty Development Programme (FDP) on Capacity Building to Enhance the Research Output at BVICAM, New Delhi from 21st–25th July, 2016 organized by IIPC, AICTE New Delhi, CSI Division I & CSI Region I.
8. Attended One Week Faculty Development Programme (FDP) on Cyber Crime Investigation and Digital Forensics with Grade “A” at NIT Goa from 30th November–6th December, 2016 organized by GIAN, MHRD New Delhi.
9. Attended Three Days National Workshop on Cyber Security & Forensics at Punjab University, Chandigarh on 9th–11th March, 2017 organized by FlipFlop Inforsec Labs Pvt. Ltd. in collaboration with NITTTR Chandigarh and Punjab University Chandigarh.
10. Attended One Week Reconnect 2017 Workshop organized by DIMACS & CCICADA held at Appalachian State University, Boone, NC, USA from 11th–17th June, 2017.
11. Attended AICTE Sponsored Two Week FDP (6th–17th Nov. 2017) on Deep Learning in Big Data Analytics organized by Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur.
12. Attended One Week FDP (3rd–7th April, 2018) on Applications of Soft Computing and Machine Learning organized by SMVDU, Katra, Jammu (J&K).
13. Attended One Week FDP (25th–29th May, 2018) on Pattern Recognition and Image Processing Using Machine Learning Techniques organized by Department of Computer Sciences & IT, Bhaderwah Campus, University of Jammu (J&K) in collaboration with Electronics and ICT Academy, IIT Roorkee and supported by Ministry of Electronics & Information Technology, Government of India.
14. Attended Reconnect 2018 Workshop “Not in my Backyard 2018: Mathematical and Computational Tools for Decision Making” organized by DIMACS & CCICADA held at Muhlenberg College, Allentown, PA, USA from 10th–14th June, 2018.
15. Attended One Week FDP as Convener (25th–29th May, 2018) on Pattern Recognition and Im-

age Processing Using Machine Learning Techniques organized by **Department of Computer Sciences & IT, Bhaderwah Campus, University of Jammu (J&K)** in collaboration with **Electronics and ICT Academy, IIT Roorkee** and supported by **Ministry of Electronics & Information Technology, Government of India**.

16. Attended One Week FDP (10th–15th September, 2018) on **Data Analytics and Data Science** organized by **Department of Computer Sciences & IT, University of Jammu (J&K)** in collaboration with **Electronics and ICT Academy, IIT Roorkee** and supported by **Ministry of Electronics & Information Technology, Government of India**.
17. Attended One Week FDP as Convener (7th–12th May, 2019) on **Data Analytics Using PYTHON** organized by **Department of Computer Sciences & IT, Bhaderwah Campus, University of Jammu (J&K)** in collaboration with **Electronics and ICT Academy, IIT Roorkee** and supported by **Ministry of Electronics & Information Technology, Government of India**.

## **CONTRIBUTION TOWARDS OTHER CAMPUSES**

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1. Member, adhoc board of studies in MSc IT academic programme.
2. Introduced E-learning course for women at Doda Campus of the University of Jammu and one of the members appointed for identification of land for permanent construction of Doda Campus.
3. Member various administrative committees framed for smooth functioning of the Poonch Campus of the University of Jammu.
4. Guest faculty in lecture series and one of the members for the installation of internet facilities at Kathua Campus of the University of Jammu.
5. One of the core committee members for “Design Your Degree” program introduced at University of Jammu.

## **ADMINISTRATIVE EXPERIENCE / RESPONSIBILITY**

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1. Presently working as Incharge Head of the Department, Computer Science and IT Bhadarwah Campus, University of Jammu since August 2006.
2. Presently working as Associate Director, SIIEDC, University of Jammu since October 2023.
3. Presently holding the Charge of I/C Provost Hostels, Bhaderwah Campus, University of Jammu since 2019.
4. Worked as Incharge Administration Bhaderwah Campus, University of Jammu.
5. Worked as Assistant Registrar Bhaderwah Campus University of Jammu
6. Working as Co-ordinator and Incharge E-Learning Course Bhaderwah Campus, University of Jammu since the inception of the Bhaderwah Campus in August 2006.
7. Worked as Warden Boys Hostel Bhaderwah Campus, University of Jammu since the inception of the Bhaderwah Campus in August 2006.
8. Worked as Incharge Reprography Bhaderwah Campus, University of Jammu since the inception of the Bhaderwah Campus in August 2006.
9. Worked as Project Trainee in National Informatics Centre State Unit Jammu.
10. Member Adhoc Board of studies in Master of Information Technology.
11. Observer / Expert DOEACC Society of India.

12. Examiner / Expert Himachal Pradesh Technical University.
13. Examiner / Expert / Guest Faculty Baba Ghulam Shah Badhshah University.
14. Councilor IGNOU Regional Center Jammu.
15. Vice Chairman Little Angel School Bhaderwah Campus University of Jammu.
16. Coordinator Youth Festival Sangam 2015.
17. Coordinator Youth Festival Sangam 2016.
18. State Student Coordinator Computer Society of India (CSI) for the year 2017-18.
19. Coordinator for NET Coaching in Computer Applications organized by Department of Computer Sciences & IT, Bhaderwah Campus in collaboration with Department of Life Long Learning University of Jammu.
20. Programme Convener “ONE DAY TECH FEST-2017” at Bhaderwah Campus of the University of Jammu in Collaboration with Computer Society of India (CSI) and Indian Army (4RR) on 21 August, 2017.
21. Coordinator, Youth Festival Sangam 2017-23.

## **TEACHING EXPERIENCE**

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1. Working as Sr. Assistant Professor in the Department of Computer Science & IT, Bhaderwah Campus, University of Jammu Since its Inception from August 2006.
2. Two years' experience as Lecture in Post Graduate Dept. of Computer Science at MBSCET an affiliated College to University of Jammu.
3. Guest Faculty at Department of Information Technology Kishtwar Campus, University of Jammu.
4. Guest Faculty in the Department of Computer Sciences & IT, Baba Ghulam Shah Badhshah University, Rajouri.
5. Guest faculty at Kathua Campus of the University of Jammu.

## **EXTRA CURRICULAR ACTIVITIES:**

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1. Represented J&K contingent in Republic Day Parade Camp New Delhi in 2000.
2. Selected as Para sailor in Prime Ministers Rally in Republic Day Parade Camp New Delhi in 2000.
3. Attended National Integration awareness camp in Rourkela (Orrisa) and Rajgir (Bihar).
4. Attended National Integration awareness camp in Rajgir (Bihar).
5. Attended Annual Training camp at Nagrota.
6. Attended Combined Annual Training camp at Nagrota.
7. Represented Sainik School in inter North Zone Competition.
8. NCC A, B, C Certificate Holder.

## **PERSONAL DETAILS**

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**Father's Name** : Sh. B. S. Manhas  
**Date of Birth** : 21 March, 1980  
**Gender** : Male  
**Nationality** : Indian  
**Languages Known** : English, Hindi  
**Address** : Behind Chander Kala Shopping Complex  
                  : Gumpal Dumana, Jammu

*I hereby declare that the information provided above is true to the best of my knowledge and belief.*

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**Date:** September 9, 2025

**Station:** Jammu

(Dr. Jatinder Manhas)