Dr Insha Altaf

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Personal Attitude

- Research Oriented.
- Student Mentoring.
- Management of Material Resources.
- Punctuality.
- Technologically Competent.
- Patience.
- Fast grasper and a good learner.
- Dedicated to work under all circumstances.
- Creating unique identity.
- Excellent Presentation, motivational and leadership skills.
- Strong analytical, logical skills.
- Ability to handle the students.
- Ability to provide quality knowledge

Experience Details

Since Oct 2024	**Assistant Professor,** Department of Computer Science and Engineering, Islamic University of Science & Technology, Jammu and Kashmir.
Mar 2023 – Oct 2024	**Assistant Professor,** Department of Computer Science and Engineering, North Camus, University of Kashmir, Jammu and Kashmir.
Nov 2022 – Mar 2023	**Senior Research Fellow,** Chitkara University, Punjab.
Nov 2015 – Dec 2018	**Assistant Professor,** National Institute of Technology Srinagar. During my tenure, I have worked in the team of NAAC accreditation and a number of B.Tech students have done their minor projects, major projects and seminars under my supervision.
Aug 2015 – Jun 2017	**Part Time Content Writer,** Tech Mantra Pvt. Ltd.

Training Programs

07 Jan 23 – 06 Feb 25	**Coordinator & Resource Person** — One-Month Internship Program on *"Python for Machine Learning"* conducted by Department of Computer Science and Engineering, Islamic University of Science & Technology, Jammu and Kashmir.

Invited Talks

07 Jan 23 – 06 Feb 25 — **Coordinator & Resource Person** — One-Month Internship Program on *"Python for Machine Learning"* conducted by Department of Computer Science and Engineering, Islamic University of Science & Technology, Jammu and Kashmir.

19 May 25-23 May 25 — **Expert Talk** — Delivered Expert Talk on "Natural Language Processing in AI: Leveraging NLP for Intelligent Systems" in *One-Week FDP on Artificial Intelligence in Science & Technology*, organized by Sher-e-Kashmir University of Agricultural Sciences & Technology of Kashmir, sponsored by NITTTR (National Institute of Technical Teachers Training and Research).

10 Mar 17-20 Mar 17 — **Expert Talk** — Delivered Expert Talk on "Big Data" in *10 Day Training Program on Big Data Analytics*, organized by NIT Srinagar, sponsored by Department of Science & Technology (Government of India).

Education Details

Mar 2019 – Sept 2022 — **Ph.D., Shri Mata Vaishno Devi University Katra , J and K.**
Thesis title: *An End-to-End Framework for Collision Detection and Victim Management in Intelligent Transport System*.

2013 – 2015 — **M. Tech. (Computer Science and Engineering), Amity University** Noida, UP.

2009 – 2013 — **B. Tech. (Computer Science and Engineering), Islamic University of Science and Technology** Awantipora, Pulwama. J and K.

2008 — **Higher sec part II** (12th), J and K Board of School Education.

2006 — **Higher sec part I** (10th), J and K Board of School Education.

Research Interests

- Machine Learning
- Nature Inspired Algorithms
- Deep Learning
- Natural Language Processing
- Smart City Automation

Peer Reviewer

Since March 2021 — **Reviewer,** International journal of ITS research. Journal, Springer Nature, ISSN: 1348-8503, **(ESCI Indexed)**

Since Sept 2021 — **Reviewer,** Neural computing & applications. Journal, Springer Nature, ISSN: 0941-0643, **(SCI Indexed)**

Since July 2023 — **Reviewer,** Wireless personal communications. Journal, Springer Nature, ISSN: 0929-6212, **(SCIE Indexed)**

Since March 2021 — **Reviewer,** Egyptian Informatics Journal. Journal, Elsevier, ISSN: 1110-8665, **(SCIE Indexed)**

Since April 2024 — **Reviewer,** SN Computer Science. Journal, Springer Nature, ISSN: 2661-8907, **(Scopus Indexed)**

Research Details

Patent

1. Dr Insha Ataf, Dr Ajay Kaul "A Collision Detection and Victim Management Method for Road Safety", Application No. 202311046137, Date of Filing: 10.07.2023, Date of Publication: 17.01.2025

Publications

1. **Insha Altaf** & Ajay Kaul, (2021). Vulnerable road user safety: A systematic review and mesh-networking based vehicle ad hoc system using hybrid of neuro-fuzzy and genetic algorithms. International Journal of Communication Systems, 34(13), e4907**. (SCI/SCIE Indexed)**
2. **Insha Altaf** & Ajay Kaul, (2022). Vanet-TSMA: A traffic safety management approach for smart road transportation in vehicular ad hoc networks. International Journal of Communication Systems, 35(9), e5132. **(SCI/SCIE Indexed)**
3. **Insha Altaf** & Ajay Kaul, (2023). Classifying collisions in road accidents using XGBOOST, CATBOOST and SALP SWARM based optimization algorithms. Multimedia Tools and Applications, Springer Nature, 1-24. **(SCI/SCIE Indexed)**
4. **Insha Altaf & Ajay Kaul,** (2024). Classifying victim degree of injury in road traffic accidents: A novel stacked DCL-X approach. *Multimedia Tools and Applications*, *83*(25), 66691-66723. **(SCI/SCIE Indexed)**
5. **Insha Altaf,** (2025). Time-Series Analysis for Forecasting Climate Parameters of Kashmir Valley Using ARIMA and Seasonal ARIMA Model. *Jordan Journal of Earth & Environmental Sciences*, *16*(1). **(Scopus Indexed-Q3)**
6. **Insha Altaf** & Ajay Kaul, (2022). A Survey on Autonomous Vehicles in the Field of Intelligent Transport System. In Applications of Networks, Sensors and Autonomous Systems Analytics (pp. 11-31). Springer, Singapore.
7. **Insha Altaf** & Ajay Kaul, Traffic Flow Prediction based Techniques in Intelligent Transport System: A Survey, to be published in International Journal of Future Generation Communication and Networking. (In Press)
8. **Insha Altaf** & Ajay Kaul, Comparative Analysis using Machine Learning Algorithms for Roads Accident severity on Imbalanced Data. (Under Review)
9. **Insha Altaf** & Ajay Kaul, A Novel Blended ALGC-L Methodology for classifying Victim Ejection from Vehicles after collision on Roads. (Under Review)
10. **Insha Altaf**, "Vulnerability assessment and patching management", published in IEEE Sponsored international conference on soft computing techniques and implementation (ICSCTI-2015).
11. **Insha Altaf**, "Survey on parameter estimation in software reliability", published in IEEE Sponsored international conference on soft computing techniques and implementation (ICSCTI-2015).
12. **Insha Altaf,** "Survey on selenium tool in software testing", published in IEEE Sponsored international conference on green computing and internet of things (ICGCIoT-2015) IEEE Part No.:CFP15C35-USB, IEEE ISBN: 978-1-4673-7909- 0, Page(S): 1378 - 1383.
13. **Insha Altaf,** "An effective harmony search algorithm for solving optimization problems", published in IEEE Sponsored International Conference on Green Engineering and Technologies (IC-GET) 2016.
14. **Insha Altaf,** "Design and analysis of modified playfair square cipher algorithm using 10 by 9 matrix with "n" iteration followed by "n" substitutions", published International Journal of Universal Science and Technology.
15. **Insha Altaf**, "Comparison of modulation schemes for optimistic transmission and reception in

dvb-s2 link", published in international conference on sustainable development and technological innovation held at IUST.

16. **Insha Altaf**, "Intrusion detection for MANETS", published in International Journal Of Engineering Sciences and Research Technology, Volume -4, Issue-4, Paper- id: pid-ijrest-44201710 April 2017.

17. **Insha Altaf,** "Soil moisture content monitoring system", published in International Journal for Innovative Research in Science and Technology (IJIRST).

18. **Insha Altaf,** "A specification-based intrusion detection model for AODV", published in International Journal of Computer Science & Engineering Technology (IJCSET), Volume-8, Issue-6, June 2017,

19. **Insha Altaf,** "A specification-based intrusion detection model for OLSR", published in International Journal of Computer Science & Engineering Technology (IJCSET), Volume-8, Issue-6, June 2017.

20. **Insha Altaf,** "DERM exchange intrusion detection model for manet", published in International Journal of Computer Science & Engineering Technology (IJCSET), Volume-8, Issue-6, June 2017.

21. **Insha Altaf**, "DRETA distributed routing evidence tracing and authentication intrusion detection model for manet", published in International Journal of Computer Science & Engineering Technology (IJCSET), Volume-8, Issue-6, June 2017.

22. **Insha Altaf,** "EmoVoice - Real-time emotion recognition from speech", published in International Journal of Advance Research (IJOAR), Volume 4, Issue 1, January 2016 Edition, Manuscript ID: IJOARCS-4153.

23. **Insha Altaf,** "Comparative Analysis of Outlier Detection Techniques", published in International Journal of Advance Research (IJOAR), Volume 4, Issue 1, January 2016 Edition, Manuscript ID: IJOARCS-4153.

Internships

HCL, jan 2012- March 2012 **Jammu, IN**

Industrial Training on .NET at HCL, Jammu for a project from Web Technologies, Project Title: Real Time Analysis of Budgetary Allocation and Actual Expenditure.

Lucideus tech , May 2014 – July 2014 **New Delhi, IN**

Summer Internship on Pen Testing at Lucideus Tech Private Limited, New Delhi for a research project from Web Security, Title: Vulnerability Assessment and Patching Management.

Project Details

During M.Tech

1. **Project title:** Pen Testing (Vulnerability Assessment and Patching Management).

Operating System : Windows

Platform **:** PHP, SQL-Servr

Team size : 1

2. **Project title:** Effective and Optimized software reliability prediction

Operating system : Windows

Platform **:** Matlab

Team size : 1

- **During B.Tech**

1. **Project title:** Real Time Analysis of Budgetary Allocation and Actual Expenditure.

Operating System : Windows

Platform **:** Java, SQL-Server

Team size : 1

Workshops/Seminars/Conferences/Presentations

- Participated in the FDP on Innovations and Research Trends in Artificial Intelligence, February 21-26, 2022, organized by the Centre for Artificial Intelligence, Banasthali Vidyapith.
- Participated in the one-week Faculty Development Programme on "Deep Learning and Machine Learning Applications using Python" conducted by Electronics & ICT Academy, IIT Roorkee at SMVDU Katra from 06 January – 10 January 2020.
- Participated in 6th International Conference on Recent Trends & Advancement in Engineering and Technology (ICRTAET – 2019-20) from 17-18 January 2020 at SMVDU, Katra.
- Presented Paper titled "Traffic Flow Prediction based Techniques in Intelligent Transport System: A Survey" in the International Conference on Convergence of Smart Technologies (IC2ST 2021) on 9th and 10th January 2021.
- Presented Paper titled "A Survey on Autonomous Vehicles in the Field of Intelligent Transport System" in the International Conference on Applications of Networks, Sensors and Autonomous Systems Analytics (ICANSASA 2020) on 11th and 12th December 2020.
- Participated in the TEQIP-III sponsored workshop on "Foundation of Fuzzy Set and Fuzzy Logic Applications" organized from 30th September – 4th October 2020, at Department of Computer Science and Engineering, SMVDU, Katra.
- Participated in the workshop on "Fundamentals of Deep Learning for Computer Vision" organized by Model Institute of Engineering and Technology in collaboration with NVIDIA Deep Learning Institute on 19th – 20th October 2019.
- Participated in the TEQIP-III sponsored workshop on "Ethical Hacking and Cybe Security" organized by Department of Computer Science and Engineering, SMVDU, Katra on 25th – 26th September 2019.
- Participated in the 4th International Conference, 'Confluence – the Next Generation Information Technology Summit' held on 26th and 27th September, 2013 at Amity University Uttar Pradesh, Noida.
- Participated in the 5th International Conference, 'Confluence – the Next Generation Information Technology Summit' held in the year 2014 at Amity University Uttar Pradesh, Noida.

- Participated in the 5th IEEE International Conference on “Communication System and Network Technologies” held on 4-6 April 2015, Gwalior.
- Participated in the Confluence on “Mega trends of IT – Social, Mobile, Analytics, Cloud” at Amity University, Noida from 26 and 27th September 2013.
- Participated in the Workshop on Virtual Machines on 2013 Held at Amity University, Noida.
- Participated in the Workshop on Web Security (Lucideus Tech Private Limited, New Delhi, 2014).
- Participated in the Participated in the Indo US International Conference on Global Intellectual Property Academy at Amity University, Noida.
- Participated in the Participated in the Debating Society, Miranda House and All India Artisans and Craftworkers Welfare Association at Miranda House, University of Delhi.

Extra Co-Curricular Activities

- Student Coordinator / Member – Core Committee of TEQIP-III sponsored workshop on “Foundation of Fuzzy Set and Fuzzy Logic Applications” organized from 30th September – 4th October 2020, at Department of Computer Science and Engineering, SMVDU, Katra.
- Student Coordinator / Member – Core Committee of Amity School of Engineering and Technology participated in Human Values Quarter 2015.
- Student Coordinator / Member – Core Committee of Amity School of Engineering and Technology participated in Human Values Quarter 2014.
- Coordinator / Member – Core Committee of Amity School of Engineering and Technology participated in Human Values Quarter 2013.
- Hold the position of Head coordinator of Amity Social Club for the year 2014-2015.

References

Available on Request

(Dr Insha Altaf)