Dr. AAZIM SHAFI LONE

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Seeking a challenging and rewarding opportunity with an organization of repute which recognizes and utilizes my true potential in the field of **Academics, Research and Development.**

Professional Experience

- Currently working as Lecturer (contractual) in Mechanical Engineering department at Institute of Technology (IOT) Zakura, J&K.
- Worked as Principal Project Scientist at Indian Institute of Technology Delhi (IIT-D) in project titled as "Material characterization of brain tissue and development of tissue-device interaction based neurosurgical simulation tool" from April 2023 to March 2024.
- Worked as Assistant Professor (Academic Arrangement) at GCET Safapora, Jammu and Kashmir from December 2022 to March 2023.
- Research Scholar in Mechanical Engineering Department at National Institute of Technology Srinagar from April 2017 to April 2022.
- Worked as Senior System Engineer at Infosys Limited for the period of 2.5 years. Completed foundation training program on JAVA EE (using Eclipse platform), PLM (using Windchill) and PPM (using Planisware tool).
- Worked as Lecturer at National Institute of Technology Srinagar on contract basis for 8 months.

Educational Credentials

Ph.D. Mechanical, 2022 — National Institute of Technology, Srinagar
Area of research: *Modeling and Simulation of Contact problems by Enriched techniques (GPA 8.10)*

M.Tech (Manufacturing Science and Engineering), 2014 — Visvesvaraya Technological University, Belgaum; *83.29% (Gold Medalist)*

B.E (Mechanical), 2011 — Kashmir University; *73.975%*

Higher Secondary, 2007 — Tyndale Biscoe School, Srinagar; *81.67%*

Areas of Expertise

Finite Element Method (FEM)**, Enriched Numerical Techniques** (XFEM, EFGM)**, Tribology** (Al-2014 alloy)**, Contact Mechanics, Brain Mechanics** (Material characterization of brain tissue and Development of tissue-device interaction-based neurosurgical simulation tool)**.**

Subjects Taught

- Finite Element Method (FEM)
- Strength of Materials (SOM)

- Engineering Mechanics (EM)
- Machine Drawing (MD)

Educational Credentials

Ph.D. Mechanical, 2022	National Institute of Technology, Srinagar
Area of research:	*Modeling and Simulation of Contact problems by Enriched techniques (GPA 8.10)*
M.Tech (Manufacturing Science and Engineering), 2014	Visvesvaraya Technological University, Belgaum; *83.29% (Gold Medalist)*
B.E (Mechanical), 2011	Kashmir University; *73.975%*
Higher Secondary, 2007	Tyndale Biscoe School, Srinagar; *81.67%*

Scholarships

April 2017 to April 2022	**Ph.D. Scholarship Assistantship** Ministry of Human Resource and Development, Government of India
Oct' 2012 to Mar' 2014	**M.Tech Scholarship Assistantship** Ministry of Minority Affairs, Merit cum Means Scholarship, Government of India
Oct' 2007 to Jan' 2011	**B.E Scholarship Assistantship** Ministry of Minority Affairs, Merit cum Means Scholarship, Government of India

Achievements

- Received Gold Medal from Visvesvaraya Technological University for securing first rank in M.Tech in Manufacturing Science & Engineering.
- Completed Mechanical Engineering with overall 8th rank in University.
- Won Best Outgoing Student Award 2014 from Department of Mechanical Engineering, PES Institute of Technology.
- Received Insta Award as Certificate of Appreciation from Client and peer for 3rd Quarter from Engineering Service Unit, Infosys.
- Received certificate of Recognition for outstanding dedicated support and service to Syngenta R&D from Eric Boernert, Planisware Product Manager, Syngenta.

Publications

- Aazim Shafi Lone, G. A. Harmain, Azher Jameel, "Modeling of contact interfaces by penalty based enriched finite element method", **Mechanics of Advanced Materials and Structures** (Taylor and Francis), 2022. (Impact Factor **4.03**) https://doi.org/10.1080/15376494.2022.2034075.

- Aazim Shafi Lone, G. A. Harmain, Azher Jameel, "Enriched Element Free Galerkin Method for Solving Frictional Contact between Solid Bodies", **Mechanics of Advanced Materials and Structures** (Taylor and Francis), 2022. (Impact Factor **4.03**) https://doi.org/10.1080/15376494.2022.2092791

- Aazim Shafi Lone, Showkat Ahmad Kanth, G. A. Harmain, Azher Jameel, "Modelling of large sliding between contacting bodies using node-to-segment approach", **Iranian Journal of Science and Technology, Transactions of Mechanical Engineering** (Springer), 2023. (Impact Factor **1.53**) https://doi.org/10.1007/s40997-023-00605-5.

- Showkat Ahmad Kanth, Aazim Shafi Lone, G. A. Harmain, Azher Jameel, "Estimation of crack tip plastic zones in presence of material irregularities by extended finite element method", **Journal of the Brazilian Society of Mechanical Sciences and Engineering** (Springer), 2023. (Impact Factor **2.36**) https://doi.org/10.1007/s40430-023-04235-5.

- Aazim Shafi Lone, G. A. Harmain, Azher Jameel, "XFEM modeling of frictional contact between elliptical discontinuity and solid bodies", Elsevier, **Materialstoday:Proceedings** 26 (2020) 819-824. (Scopus indexed) https://doi.org/10.1016/j.matpr.2019.12.424.

- Aazim Shafi Lone, Showkat Ahmad Kanth, G. A. Harmain, Azher Jameel, "A state of art review on the modeling of Contact type Nonlinearities by Extended Finite Element method", Elsevier, **Materialstoday: Proceedings** 18 (2019) 3462-3471. (Scopus indexed) https://doi.org/10.1016/j.matpr.2019.07.274.

- Aazim Shafi Lone, G. A. Harmain, Azher Jameel, "A coupled finite element-element free Galerkin approach for modeling frictional contact in engineering components", Elsevier, **Materialstoday: Proceedings** 5 (2018) 18745-18754. (Scopus indexed) https://doi.org/10.1016/j.matpr.2018.06.221.

- Showkat Ahmad Kanth, Aazim Shafi Lone, G. A. Harmain, Azher Jameel, "Modeling of embedded and edge cracks in steel alloys by XFEM", Elsevier, **Materialstoday: Proceedings** 26 (2020) 814-818. (Scopus indexed) https://doi.org/10.1016/j.matpr.2019.12.423.

- Showkat Ahmad Kanth, Aazim Shafi Lone, G. A. Harmain, Azher Jameel, "Elasto plastic crack growth by XFEM : A Review" Elsevier, **Materialstoday: Proceedings** 26 (2020) 814-818. (Scopus indexed) https://doi.org/10.1016/j.matpr.2019.07.275

Conference Papers

- Aazim Shafi Lone, G. A. Harmain, Azher Jameel, "A state of Art Review on the Level Set Method for Modelling Discontinuities in Engineering materials", **Proceedings of the 62nd Congress of the Indian Society of Theoretical and Applied Mechanics** (An International Conference), held at University College of Engineering, Osmania University, India, (62-istam-sm-fp-103),December 15-18, 2017.

- Aazim Shafi Lone, G. A. Harmain, Azher Jameel, "Level Set Methodology for Representing Different Discontinuities in Engineering Materials", **Proceedings of the 62nd Congress of the Indian Society of Theoretical and Applied Mechanics** (An International Conference), held at University College of Engineering, Osmania University, India, (62-istam-sm-fp-102),December 15-18, 2017.

- Lone Aazim Shafi, R Chinnakurli Suryanarayana Ramesh, Qari Faisal Ahmad, Maekai Ishfaq Amin, "Tribological Studies on Cold Forged Aluminium 2014 Alloy", **STLE Annual Meeting & Exhibition** May 17-21, 2015, Omni Hotel, Dallas, Texas, USA.

- Lone Aazim Shafi, R Chinnakurli Suryanarayana Ramesh, Qari Faisal Ahmad, Maekai Ishfaq Amin, "Development in Cold Forging", **National Conference on Advances in Mechanical Engineering**, AMC Engineering College, Bangalore.

- Maekai Ishfaq Amin, Lone Aazim Shafi, R Chinnakurli Suryanarayana Ramesh, Qari Faisal Ahmad, "Slurry Erosive Wear Behaviour Studies of Cold Forged Aluminium 2014 Alloy", **STLE Annual Meeting & Exhibition** May 17-21, 2015,Omni Hotel, Dallas, Texas, USA.

- Qari Faisal Ahmad, Lone Aazim Shafi, R Chinnakurli Suryanarayana Ramesh, Maekai Ishfaq Amin, "A Study on Air jet wear behaviour of Cold Forged Aluminium 2014 Alloy", **STLE Annual Meeting & Exhibition** May 17-21, 2015, Omni Hotel, Dallas, Texas, USA.

Computer Skills

- **Languages**: Python, RDBMS (SQL), C, Html, Java.
- **Software** like MATLAB,Abaqus, FressSurfer, Gmsh, ANSYS, AutoCAD, SolidWorks, Pro E, WindChill, Planisware, Eclipse, Microsoft Office.

Key Projects/Seminars/Workshops

Major Projects:

- Tribological Studies on Cold Forged Aluminium 2014 Alloy.
- Fabrication and Design of Hybrid Escalator.

Minor Projects:

- Development of AMC for Automotive applications.
- Thermal Spray Coatings – General Electrical (GE) India & Bharat Heavy Electrical Limited (BHEL) Bangalore works.

Industrial Training:

- Basics of Gas Turbine Plant, its function & maintenance of each component.
- Central Heating System.
- Steam generation and supply and their allied system.
- Operation and control system of Hydal Power Plant to generate electricity.
- Working and maintenance at U.E.E.D(Urban Environmental Engineering Department)

Date of Birth: 1th September 1988

References:

1. **Prof. G. A. Harmain** | gharmain@nitsri.ac.in
   Dean Faculty Welfare, Former Dean Research and Consultancy, Former HoD
   Professor, Mechanical Engineering Department, National Institute of Technology, Srinagar, India
2. **Dr. Azher Jameel** | jameelazher@gmail.com
   Assistant Professor, Mechanical Engineering Department, National Institute of Technology, Srinagar, India
3. **Prof. M. F. Wani** | mfwani@nitsri.ac.in
   Dean Research and Consultancy, Former HoD, Former Dean Academics
   National Institute of Technology, Srinagar, India
4. **Prof. C S Ramesh** | csr_gce@yahoo.co.in
   Professor & Dean, Research & Innovations, Presidency University, Bangalore, India