CURRICULUM VITAE

SHAMS TABREZ

Email- shamstabjmi@gmail.com
Mobile No- +919717136054

PROFESSIONAL OBJECTIVE

To work in a challenging environment which gives equal opportunity to learn and grow. I wish to have a mutually beneficial relationship with the organization by making the best use of my education, skills, and desire to help it achieve its vision and mission. Possess excellent research and observation skills and important time management abilities.

RESEARCH & TEACHING INTEREST

(i) Tribology and Materials Science
(ii) Robotic & Mechatronics, Industrial Engineering and 3D Printing
(iii) Engineering Mechanics and Strength of Material
(iv) CAD/CAM, Thermal Engineering and HVAC
(v) Engineering Drawing and Machine Design

PROFESSIONAL EXPERIENCE

Sharda University

Presently, Ph.D. research Scholar in Mechanical Engineering at Sharda University Greater Noida UP since January 2021 till date now. **Thesis accepted** and final thesis presentation will be scheduled soon.

RESEARCH AREA

Investigation on tribological behaviour of nickel-based solid lubricating composites.
Fabrication and characterization types of equipment used for projects such as Ball Milling, Furnaces, FESEM, EDX, X-ray Diffraction (XRD), Fourier-transform infrared spectroscopy (FTIR), Raman spectroscopy, profilometer, Mechanical and tribological behaviour testing

SHIV NADAR INSTITUTE OF EMINENCE DEEMED TO BE UNIVERSITY

Currently working as Senior Laboratory Technician in the Mechanical Engineering Department of SHIV NADAR INSTITUTE OF EMINENCE DEEMED TO BE UNIVERSITY GREATER NOIDA DADRI U.P from 03 September 2018 to till date now 2023.

ESSENTIAL TASKS

Mechatronics Lab (Festo Pneumatic Trainer Kit, Festo Advanced Electro-Pneumatic Trainer Kit and Fluidsim simulator Software).
Industrial Engineering Lab (Doosan Cobot, Cobot programming and simulation by Dart Studio s oftware, Festo MPS station (Distribution, Measuring and Sorting), PLC programming Codesys Sof tware.

- Microcontroller Arduino(nano/uno), Raspberry Pi(3/4, Pico) with programming, basic electronics and sensor, C/C++, MATLAB, LabView, 3D printing and fabrication drone and robot parts, CAD software (solidworks and CATIA V5) with basic analysis software.
- To plan, and prepare the layout and Installation of the Mechanical lab as the B.Tech and

Research level.

- Prepare lab equipment quotation for the Development of the new lab.
- To be involved in departmental official work and Prepare Time tables.
- Prepared Lab Manual of the all-Mechanical Labs to UG/PG Level.
- Prepare lab for UGC, AICTE and International standards.
- Was Lab Incharge of Fluid Machinery Lab, Fluid Mechanics, Heat and Mass Transfer, Engineering Mechanics Workshop, and CAD/CAM lab.
- Have active involvement in the set-up of labs like Fluid Machinery/Mechanics, HVAC, Thermal Lab, IC Engine, Theory of Machine, Mechatronics Lab CAD/CAM, Workshop, and Advance Manufacturing Lab.
- Have been involved in various department administrative tasks, like Admission, Examination cell, and maintaining records.
- Supervised multiple daily laboratory operations to ensure that all safety regulations and requirements were always fully followed.
- Coordinated and supervised multiple Interns, worked closely and communicated with various science professionals, and performed other duties as required.

Ministry of Defense Royal Saudi Air Force

Worked as Mechanical Engineer General (Operation and Maintenance) in Ministry of Defense and Aviation, Engineering & Works Directorate Riyadh- Saudi Arabia since 21May 2016 to 1 July 2018.

ESSENTIAL TASKS

Responsible for HVAC, RO Water Treatment Plant/Sewage Treatment Plant (MBBR process), Plumbing and other General Housing Works.

- Planning and undertaking schedule maintenance.
- Responding to breakdowns, diagnosing faults and repairing Equipment.
- Supervising Engineering and Technical Staff.
- Engineering facility provided to military Housing.
- Making work order and requisition on EHD system.
- Managing budgets, statistical and financial records.
- Creating maintenance procedures, managing stocks of supplies and equipment.
- Managing chemicals stocks of supplies for Water Treatment Plant and Laundry.
- Ensuring compliance with health and safety legislation.
- Responsible for EHD Project execution, installation and commissioning of HVAC systems and other housing work.

INNOVATIVE CONSULTING ENGINEERS

Worked as HVAC Design Engineer in INNOVATIVE CONSULTING ENGINEERS, shaheenbagh Kalandi Kunj Road, Okhla New Delhi from 20 August 2015 to 08 April 2016.

ESSENTIAL TRAINEE TASKS

- Data fixation including HVAC design duty parameters & calculation of heat loads to determine required capacity and type of AC requirements.
- Using HAP software for load calculation.
- Prepare concept designs & design basis report with recommendation of suitable AC system with analysis of options including cost benefits analysis.
- Prepare BOQ, cost benefit analysis, technical specification and tender documents.
- Assist clients in tender evaluation & vendor selection.
- Guide HVAC draughtsman for detailed design work including preparation of working drawings.

- Co-ordinate with utility, electrical design work including preparation of working drawings.
- Timely completion of projects including & handing over of HVAC systems & As-Built drawings.

R.D. AIR CONDITIONING WORKS, NOIDA

Worked as Site Engineer in R.D.AIR CONDITIONING WORKS, NOIDA, from 16 August 2004 to 23 January 2009.

ESSENTIAL TASKS

- Responsible for successful execution, installation and commissioning of HVAC systems.
- Coordination with clients, and other agencies for creating work fronts clearing constraints attending priority works.
- Responsible for HSE & QA/QC compliance during site work.
- Frequent review of site activities for monitoring progress and analyzing future requirements.
- Ducting work & FCU, AHU, VRV, VRF, split unit and package unit.
- Managing the project documentation which includes shop drawing, material, bills certification, measurement as built drawing, and O&M manuals.
- Monitoring of resources deployed daily.
- Maintaining Quality of work and safety as per given standard.
- Checking of bills from contractors, Reconciliation of materials

ACADEMIC QUALIFICATIONS

Exam/ Degree	Specialization	College	University	Passing Year	Percentage	Division
PhD	**Mechanical Engg (Material Science)**		**Sharda University**	**Pursuing**	**Thesis accepted for Final Defense**	
M.Tech	Machine Design	AFSET	Maharishi Dayanand University	2015	72.90	First
B.E	Mechanical		Jamia Millia Islamia	2012	65.61	First
Diploma	Mechanical		Jamia Millia Islamia	2004	66.72	First
SSC(X^{th})			Jamia Millia Islamia	2001	61.42	First

CONFERENCE /WORKSHOP

- Attending & presenting a paper, “Design and Fabrication of Die-set for Compacting the Powder to Synthesize Green Pallet of Nickel-based Solid Lubricant Nano-composites” in International Conference "Exploring Innovative Research Methodologies in a Variety of Multidisciplinary Fields and Their Prospective Future Impact" Jointly Organized by

Department of Mechanical Engineering, Managalayatan University Aligarh & AIRO Journals, on 25th & 26th Feb 2024.

- 14th International Conference on Materials Processing and Characterization (ICMPC2023) conducted by the Department of Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology (GRIET), Hyderabad, Telangana during 24th-26th March 2023, Participating and presenting a paper title: Nickel Metal Matrix Composites Reinforced with solid Lubricants: A Comprehensive Review
- Participated in a 2 days training workshop on "field Emission Scanning Electron Microscopy" from 5th to 6th Februray 2023 at Central Research Facility, Indian Institute of Technology Delhi.
- "National Conference on Advancements in Mechanical Engineering" organised by the Department of Mechanical Engineering, AL-FALAH UNIVERSITY, presented the paper Experimental Analysis of an Egg strength for Development of an Egg Handling Robot held on 16 April 2015.
- National Workshop on "Additive Manufacturing: 3D Printing" organised by the Department of Mechanical Engineering, SHIV NADAR UNIVERSITY, held on 17 and 18 August 2015.

LIST OF PUBLICATION

- Fabrication and Assessment of Tribological Performance of Nickel-Graphene-MXene Hybrid Nano-composites.
- Tribological performance of Ni-metal matrix composites reinforced with MXene (ICSEM-2025).
- Load-Dependent Tribological Behavior of Powder Metallurgy Nickel Composites Reinforced with Graphene and $Ti_3C_2T_x$-MXene.
- Tabrez, S., Singh S, Kumar, V, Gaur, K. K. (2025). Design and Fabrication of Die-set for Compacting the Powder to Synthesize Green Pallet of Nickel-based Solid Lubricant Nano-composites. *Airo Journal*.
- Tabrez, S., Gaur, K. K., Kumar, V., Jha, P., Nautiyal, H., Salam, A., & Singh, S. (2023). Nickel metal matrix composites reinforced with solid lubricants: A comprehensive review. *Materials Today: Proceedings*.
- Tabrez, S., Mohammad, A. A. S., & Ponniah, G. (2017). Experimental analysis of an eggstrength for development of an egg handling robot. *Global Sci-Tech*, *9*(3), 164-169.

PROJECTS / TRAINING

- Done a Major Project of "Development of an Egg handling Robot" in the completion of M.Tech in Machine Design.
- Done a Major Project of "Fabrication of Tendon type Multi fingered Robotics Gripper" in the completion of BE in Mechanical Engg.
- Done a Major Project of "Development of Creep Test Apparatus" in the completion of Diploma in Mechanical Engg.
- Undergone 2 months Training at APEX Institute Dealing on the Working Knowledge of 2 & 3D AUTOCAD 2005.
- Undergone 6 months Training at COMMUNITY POLYTECHNIC JAMIA MILLIA ISLAMIA Dealing on the Working Knowledge of 2 & 3D AUTOCAD 2005
- Undergone 2 months Training at NSIC NEW DELHI Dealing on the Working Knowledge of 'CNC' Operation and Programming.
- Pro-E Wildfire 5.0 from CADD CENTRE in Karol Bagh New Delhi.

- SolidWorks and Ansys from CADD CENTRE in New Friends Colony, Okhla, New Delhi.

COMPUTER LITERACY

Known Languages: C, C++, AUTOCAD, Pro-E - 5.0, Solid works and Ansys, 3DExperience.
Operating Systems: MS-DOS, Windows10, Linux
Application Software: MS-OFFICE, Origin, ROS, CATIA

PERSONAL DETAILS

Date of Birth:	16 May 1986
Gender:	Male
Marital State :	Married.
Father's Name:	Mr. Abdur Rahim
Religion:	Muslim
Nationality:	Indian
Languages:	English, Hindi, and Urdu.

Hobbies:Cricket, Listening Music, and Reading Newspaper

India Driving License

Driving License, No:	DL0320069281962
Place of issue:	New Delhi
Date of issue:	07-03-2018
Validity:	06-06-2026

Permanent Address: At + Po – Sabeya, P.S – Ramnagar
District – West Champaran, Bihar, Pin Code -845103

Passport details

Passport No:	AD821748
Date of Issue:	02-07-2025
Date of Expiry:	01-07-2035
Place of Issue:	DELHI

DECLARATION

I hereby declare that all the information stated in this *resume* is true to the best of my knowledge and belief till date. I also understand that any discrepancy found, in any of the above statements; will render me liable for cancellation of candidature/appointment at any stage.

Date: 11-05-2026 **sd**

Place: New Delhi **(Shams Tabrez)**