Muhammad Danish Saleem

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Personal Details

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Qualification

2022 – To Date **Ph.D. in Industrial & Manufacturing Engineering (In Progress)**
NED University of Engineering and Technology
Cumulative GPA: 3.93

2020 **Masters in Mechanical Engineering**
NED University of Engineering and Technology
Cumulative GPA: 3.54

2017 **Bachelors in Industrial and Manufacturing Engineering**
NED University of Engineering and Technology
Cumulative GPA: 3.544

Career & Experience

2023 – To Date
Lecturer

NED University of Engineering and Technology, Karachi
Department of Industrial and Manufacturing Engineering

- Teaching Undergraduate level courses from First to Final year.
- Working as a Departmental OBE Committee (DOBEC) member conducting successful OBE system implementation across the department fulfilling all PEC accreditation requirements.
- Supervising Undergraduate level Final Year Design Projects
- Preparing and maintaining the documents related to the departmental OBE Cell.
- Contributing to the development and enhancement of departmental curriculum to ensure alignment with industry trends and ECRDC.

- Managing and overseeing industrial and research projects, providing guidance and support to ensure successful completion and innovation.

2022 – 2023 **Teaching Assistant**	**NED University of Engineering and Technology, Karachi** Department of Industrial and Manufacturing Engineering

- Deliver classes and labs including Health, Safety & Environment, Finite Element Analysis and Metrology & Quality Control.
- Support students with the technical aspects of their course.
- Provide students with valuable and timely feedback to aid in their development.
- Participate in the assessment process by marking work, tests and assignments.
- Deliver demonstrations for practical work, advising on the required skills, methods and techniques.
- Familiarize students with course material, continually develop their skills and undertake training to enable the best support for students.
- Participate in the assessment process by invigilating exams.
- Help develop, update and gather teaching material to support the development of the course curriculum.
- Perform laboratory research, documentation and review research papers.
- Hand out assignments and grade papers and teach undergraduate courses.

2018 – 2023 **Assistant Manager** **(S3 Grade Officer)**	**Pak Suzuki Motors Company Limited** Production Division

- Analyze and forecast shop data and assist them to achieve their monthly and annual targets.
- Identify weak areas and suggest actions that will bring improvement.
- Find the cause of defect, analyze and take countermeasures for controlling the line defects.
- Interpret and analyze monthly and yearly Quality data.
- Ensure that all the processes are executed as per standard operating procedures.
- Implement safety/health standards and procedures.
- Support Production process activities.

- Monitor departmental KPI's and resolve critical shop issues related to Safety, Quality, Productivity and Cost through close communication with concerns.
- Perform Kaizen & 5S activities on daily basis.
- Identify wastages and propose improvement points to achieve monthly & annual targets.
- Make action plans and capital budgetary proposals of the department etc.
- Working on Parts rejection management system and ERP LX system.

2020 – 2022 **SAP Stream Champion**	**Pak Suzuki Motors Company Limited** Motorcycle Division

- Worked as a stream champion of PP (Production Planning) Module in SAP S/4 HANA implementation for Suzuki Global & Local.
- Prepare SAP Master Data for PP module implementation on the departmental level.
- Schedule extra simulation sessions & staff trainings that need special attention in particular subject areas such as SAP implementation and Management Policies.

2017 – 2022 **IMS Coordinator**	**Pak Suzuki Motors Company Limited** Motorcycle Division

- Worked as an IMS (Integrated Management System) coordinator of the Motorcycle division.
- Perform and update all IMS related documentations and conduct IMS related activities.
- Prepare and update shop floor SOP's, POS, OPS and necessary data sheets.
- Participate in IMS Audits, Quality webinars, Hearings and preparing data required for its conduction.

2017 **Management Trainee**	**Pak Suzuki Motors Company Limited** Production Division

- Performed a brief OJT (On Job Training) in all the sections of Production Division.
- Attended trainings on 5S techniques, Kaizen, Safety & IMS.
- Reported progress and activities in weekly meetings and developing daily reports.

2015   **Amreli Steels Limited**

Engineering Intern   Production & Mechanical Maintenance Department

- Gained valuable technical experience of steel bar manufacturing and also developed personal effectiveness within a corporate environment, along with an understanding of the complete manufacturing processes and an overview of the whole plant and submit a brief report.

Academic Research Projects

- **Biogas Digester:** Construction of a biogas digester using organic waste of Cow Dung.
- **Power Hacksaw:** A prototype hacksaw model based on reciprocating mechanism.
- **Taper Shaft:** Manufacturing project manufactured on a lathe machine.
- **Dark Sensor:** Electronic project for sensing darkness and glow mechanism.
- **Concrete Mix Ratio:** Achieving best concrete mix ratio with compression & tensile tests.
- **Slider Crank:** CAD Model of slider crank on Pro-Engineer.
- **AGV:** Research based Assignment on Automated guided vehicles.
- **International Quality Standards:** Research based assignment on internationally recognized quality standards.

Research Interests

- Industry 4.0/5.0
- Smart Manufacturing
- Human Factors Engineering
- Occupational Health and Safety
- Advanced Production Technologies
- Sustainable and Green Manufacturing
- Lean Manufacturing

Research Publications

- **Muhammad Danish Saleem**, Muhammad Mubashir Khan and Anis Fatima (2024), "IoT in Industry 4.0: Challenges and Opportunities", 13th International Mechanical Engineering Conference, Karachi, Pakistan. **(Best Paper Award)**
- Syed Rehan Ashraf, **Muhammad Danish Saleem**, Khalid Ijaz and Sadaf Sajjad (2024), "Sales forecasting using Sequential Long short-term memory (LSTM) Model", IBA SBS 3rd International Conference, Karachi, Pakistan.
- Anis Fatima, **Muhammad Danish Saleem** and Asim Zaheer (2023), "On implementation of health and safety measures in re-beaming department of denim manufacturing – a case study", Journal of Quality and System Engineering, Vol. 2, Issue No. 1-2, Page1-10.

- Anis Fatima. **Muhammad Danish Saleem** and Muhammad Wasif (2023), "On Optimization of Process Parameters of Inconel-718 Machining for Green Production", 3rd International Conference on Key Enabling technologies, Istanbul, Turkey.
- **Muhammad Danish Saleem** and Nasiruddin Shaikh (2021), "Cycle time reduction of assembly line using value stream mapping", Proceedings of the 10th International Mechanical Engineering Conference (IMEC), Karachi, Pakistan.

Research and Industrial Projects

Research Supervisors of the following research and industrial projects:
- An IoT based intelligent automated production line for smart manufacturing (won the **Best Poster Award** in the *13th International Mechanical Engineering Conference Poster Competition 2024*) **[UNESCO Best FYP 2024]**
- Smart Health and Safety Compliance System
- Optimizing Supply Chain Efficiency using Machine Learning techniques
- Digital Twin Using Lathe Machine.
- Enhancing Operational Performance and Productivity through Industry 4.0 enabled smart Manufacturing Technologies
- Design and Development of Smart Factory Utilities dashboard that monitor consumption and predict outliers
- Design and prototyping of a 3D Surface Profiling device using Optical Imaging
- Implementation of Predictive Quality Analytics enhancing product quality at AGP Limited
- Cost Optimization and Process Integration in FMCG
- Cost Reduction and Waste Minimization by using Lean Manufacturing

Workshops/Trainings/Seminars/Certifications

- Attended training on **Using Generative Artificial Intelligence (AI) tools in office work**
- Attended **Faculty Development Training Programme** (*Technology Transformation Dissemination Sessions*) arranged by GetInnovative4impact & co-funded by the European Union
- Attended training on **Technology Integration in Higher Education Teaching** arranged by HEC-NAHE at Dow University of Health and Sciences
- Attended **Fire Safety Masterclass Training by FPAP**
- Attended Expert Panel discussion on **AI in Engineering Industry and Education**
- Attended training on **Outcome Based Education (OBE)**
- Attended training on **Process of Examination and Assessment**
- Attended workshop on **Course Design**
- Attended training on **Effective Workplace Communication: Principles & Practices**
- Attended training on **Teaching Case Studies**
- Attended training on **Time Management**

- Attended training on **Psychomotor and Affective Domain Evaluation & Assessment, CEP and CEA (OEL & PBL)**
- Attended webinar on **Chat GPT & Professional Integrity**
- Attended webinar on **Digital Transformation**
- Attended webinar on **Artificial Intelligence: Implications for Technologies & Business Strategy**
- Attended training on **ChatGPT for Effective Learning**
- Attended seminar on **Capacity Building Workshops for Research**
- Attended webinar on **Introduction to Industry 4.0 Technologies**
- Attended webinar on **Engineering Application of Agile Methodology**
- Attended webinar on **Risk Assessment and Management**
- Attended webinar on **Digital Transformation and Impact of IoT on Education, Industry, Health Sector and Society**
- Attended workshop on **Accelerate your research using Elsevier's Scopus**
- Attended workshop on **SAP S/4 HANA Implementation Framework**
- Attended certificate Course on **ERP Fundamentals with SAP**
- Attended certificate Course on **Supply Chain Management**
- Attended session on **Career Orientation by CISCO**
- Attended session on **OBE Training**
- Attended workshop on **Stress & Time Management**
- Attended workshop on **Maximizing Potential**
- Attended workshop on **Stay Well Training**
- Attended certificate Course on **Computer Software & Programming**

Software and Information Technology

- CAD Software: **TinkerCAD**, **AutoCAD**, **SOLID EDGE**, **Pro-Engineer** and **CATIA**.
- Simulation Software: **CISCO Packet Tracer**, **ANSYS**, working knowledge of **ICEM CFD, CFX, Fluent, and Open FOAM.**
- Statistical Analysis: **MINITAB**.
- Programming Languages: **Python, Google Colab, Turbo C++, MATLAB, GW BASIC** and **MS DOS**.
- Application Software: **Microsoft Power BI, MS Azure, IMB Watson, MS Office, MS Project, POM** and **TORA**.
- Graphics: **Adobe Photoshop** and **FreeHand**.
- Cloud based Applications: **Zoom, Google Classroom, Google Meet** and **ChatGPT**.

Languages

- English
- Urdu

Memberships and Affiliations

- Pakistan Engineering Council (PEC)
- Industrial Engineering & Operations Management (IEOM) International Society