

Engr. Mumammad Ishfaq Khan

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EDUCATION

1. **B.Sc. Mechanical Engineering**, University of Engineering and Technology Lahore, Pakistan, B.Sc. Mechanical Engineering. (2003-2007)
2. **MS Structural Mechanics**, Blekinge Tekniska Hogskolan, Sweden, Master of Mechanical Engineering in Structural Mechanics. (2008-2012)
3. **Ph.D. Scholar in Mechanical Engineering Design**, International Islamic University, Islamabad. (2014-to Date) (Course Work Completed)

Research Activities:

1. **“Numerical Investigation of Vortex Shedding and Flow Around a Smooth Circular Cylinder in Upper Transition Regime by Using URANS” (2020)**

Flow around a circular cylinder is of prime interest of many researchers. In this research flow around a smooth circular cylinder has been explored in Upper Transition Regime (1.5×10^6 - 4×10^6) at Re 1.5×10^6 , 2×10^6 , 2.7×10^6 , 3×10^6 and 3.6×10^6 by employing Two Dimensional Unsteady Reynolds Averaged Navier-Stokes Equations (2D URANS) SST k- ω model. The objective of the research is to find out the viability of the model in the regime from engineering point of view. The results are compared with sparsely published experimental and numerical data for the regime. Based on the comparison it is concluded that the model predicts satisfactory results, from engineering point of view, for the regime where turbulence is anisotropic.

2. **“Heat Estimation of Roadside Herbs: Wah Cantt Taxila”(2015)**
ISBN: 978-1-4673-6812-4

The research work has been presented at 2nd International Conference on Power Generation and Renewable Energy Systems, 2015, IIU, Islamabad on 11th June, 2015. The conference paper has been **published in IEEE**.

COMPUTER SKILLS

- | | |
|---------------------|------|
| 1. ANSYS | Good |
| 2. Microsoft Office | Good |
| 3. Microsoft Excel | Good |

PROFESSIONAL EXPERIENCE

(9 Years 5 Months to Date)

1- Lecturer: (6 Years & 5 Months to Date)

International Islamic University, Islamabad, Pakistan, July, 2014- to Date

1. Managerial:

- i. **Session Coordinator** of the intake F-11 & F15 batches, I am responsible for solving their issues regarding teachers, courses and/or providing support to individual students on their request.
- ii. **Block In-charge** in conducting UET, Lahore & IIUI **Entrance Tests**, where managed the seating and conduct of entrance test of 800 applicants in 2015.
- iii. **Member of Library Committee**, in which capacity, help the Library in purchasing books for the Department. The Mechanical Section of the Library has rapidly expanded during this period to more than 1000 titles from 300 titles.
- iv. **Secretary** for Department of Mechanical Engineering, to manage, conduct and report the departmental meetings to Faculty, Chairman & Dean of Faculty till Dec, 2019.

2. Teaching:

I have taught and assessed the following subjects as per OBE rules & regulations:

Engineering Dynamics, Mechanical Vibrations, Applied Chemistry

I have taught and assessed the following subjects as per HEC and PEC rules & regulations:

Machine Design, Mechanics of Materials-1, FEM (Laboratory) and Applied Physics (Laboratory) to Undergraduate students.

3. Product Development & Achievements:

1-Cricket Bowling Machine: Have lead Final Year students to successfully design “Cricket Bowling Machine” that has secured:

- i. **1st Position** in University of Gujrat **All Pakistan Project Competition-2015**,
- ii. **2nd Position** in **2015 Open House** at the Department

2- 5 Axes Milling CNC Machine: Have lead Final Year students to successfully design “5 Axes Milling CNC Machine” that has secured:

- i. **1st Position** in University of Gujrat **All Pakistan Project Competition-2016**,
- ii. **1st Position** in **7th FETX, Open House-2016** at IIU, Islamabad,

The project has been handed over the Department of Mechanical Engineering as Laboratory Equipment.

2- Lecturer: (1 Year & 7 Months)

Swedish College of Engineering & Technology (U.E.T., Taxila), Wah Cantt., Rawalpindi, Pakistan, Dec. 2012- June, 2014

1. Teaching:

Taught **Tribology, Machine Design & Engineering Dynamics** to Undergraduate students,

2. Managerial:

1. Served as **Final Year Project Coordinator** to standardize and effectively manage the final year projects of the undergraduate students.
2. Worked on **Annual Report 2013-2014** of the College that carried vital **2 PCPs (Professional Credit Points)** for the organization in getting PEC accreditation.

3- Research:

I presented a research paper at 2nd PGRSET Conference at IIUI. Details are given in the concerned section of the CV.

3- Trainee Engineer: (9 Months)

MLCF, Iskanderabad, Pakistan, July, 2007-Mar, 2008

I improved **ISO and Preventive Maintenance Wings of Mechanical Department** of 500TPD White Cement Plant. In this capacity, I introduced new documents to improve working conditions of the workers, hence, improve the productivity. Based on my performance and services I was promoted as A.M. after 8 months.

4- Assistant Manager: (5 Months)

MLCF, Iskanderabad, Pakistan, April, 2008-Aug, 2008

I acted as **ISO and Preventive Maintenance Coordinator (Mechanical)** as A.M. I also represented the department in the **ERP Development**.

Achievements:

- i. Assisted in internal and external **ISO Audits**.
- ii. Enhanced the efficacy of Preventive Maintenance Department by:
 - o **improving inventory of critical components**,
 - o implementing **daily inspection schedules** followed by **weekly and monthly scheduled check-up reports**.
- iii. Categorized the mechanical inventory for the **ERP development** project for 500 TPD White Cement Line.

ANNEXATION

1- Language Skills:

- | | |
|------------------------------|--|
| 1. Saraiki: | Native in reading, speaking and listening. |
| 2. Urdu: | Expert in reading, speaking and listening. |
| 3. English: | Expert in reading, speaking and listening. |
| 4. Punjabi: | Expert in reading, speaking and listening. |
| 5. Svenska (Swedish): | Grunadare i Lysna, skriva och tallar |

2- Personal Info:

- | | |
|------------------------|---------------------|
| Date of Birth: | 1982-05-03. |
| Place of Birth: | Mianwali, Pakistan. |
| Citizenship: | Pakistani. |
| Religion: | Muslim |
| Gender: | Male |

3- Hobbies:

1. Teaching
2. Observing and relating nature to Physics and Mathematics