

# LUQMAN AHMAD NIZAM



## PERSONAL DATA

|                         |                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DATE AND PLACE OF BIRTH | 7 <sup>th</sup> October 1986<br>Lahore, Pakistan                                                                                                                                                                                                                                                                                                                                               |
| OFFICE ADDRESS          | Office No. 4, Department of Mechanical Engineering<br>HITEC University, Taxila                                                                                                                                                                                                                                                                                                                 |
| HOME ADDRESS            | House # CB-336/1 Street#8 Nishtar Road Lalazar Wah<br>Cantt, Distt. Rawalpindi, Pakistan<br>Office contact No: +92-51-4908146-50 Ext: 333<br>Home contact No: +92-51-4530764<br>Mobile contact No: +92-346-5403029<br>Email: <a href="mailto:luqman.ahmad@hitecuni.edu.pk">luqman.ahmad@hitecuni.edu.pk</a><br>Email: <a href="mailto:enr.luqmannizam@gmail.com">enr.luqmannizam@gmail.com</a> |

## RESEARCH INTEREST

Areas including mechanical and flow induced vibration analysis, wear analysis of tube bundles and optimization.

## EXPERIENCE

- Assistant Professor in Mechanical Engineering Department, HITEC University Taxila from September, 2016 to date.
- Lecturer in Mechanical Engineering Department, HITEC University Taxila from September, 2013 to August, 2016.
- Research Assistant in Mechanical Engineering Department, University of Engineering & Technology, Taxila from August, 2011 to February, 2013.

## EDUCATION

|               |              |                                                                                                                      |              |
|---------------|--------------|----------------------------------------------------------------------------------------------------------------------|--------------|
| Ph.D          | 2014 to-date | Mechanical Engineering (Flow Induced Vibrations)<br>University of Engineering & Technology, Taxila<br>(Thesis phase) | GPA:<br>3.05 |
| M.Sc          | 2011-2013    | Mechanical Engineering (Thermal System Engineering)<br>University of Engineering & Technology, Taxila.               | GPA:<br>3.00 |
| B.Sc          | 2006-2010    | Mechanical Engineering<br>University of Engineering & Technology, Taxila.                                            | 78.03%       |
| Intermediate  | 2003-2006    | F.G. Degree College for Men, Wah Cantt                                                                               | 78.82%       |
| Matriculation | 2003         | P.O.F. Model High School, Gudwal Wah Cantt                                                                           | 80.12%       |

### Ph.D. THESIS

The analysis of the upstream turbulence effect on fluidelastic instability in tube bundle subjected to cross flow (In progress)

### M.Sc. THESIS

Further investigation into cross-flow induced vibrations in heat exchanger tube bundle

## COURSES TAUGHT

- Design of Machine Elements
- Mechanical Vibrations
- Engineering Dynamics
- Theory of Machines and Vibration Lab

## PROJECTS

Supervised final year projects of B.S. Mechanical engineering in the areas including:

- Vibration analysis of rotary machinery
- HVAC system design
- Water from air (WFA) system
- Fuel efficient car
- Projects related to industrial problems

## PROFESSIONAL AFFILIATIONS

- Pakistan Engineering Council (PEC)

## PUBLICATIONS

### INTERNATIONAL JOURNAL PUBLICATIONS

- Shahab Khushnood, **Luqman Ahmad Nizam**, 2017 “Experimental Study of Cross-Flow Induced Vibrations in Heat Exchanger Tube Bundle”, China Ocean Engineering, Volume 31, Issue 1, pp 91–97, March 2017 (ISSN 0890-548) (IF:0.674).
- Tasawar Abbas, Shahab Khushnood, **Luqman Ahmad Nizam**, Muhammad Usman, 2017, “Fretting Wear Analysis of different tube materials used in Heat Exchanger tube bundle”, Advances in Science and Technology Research Journal, Vol. 11(4), pp. 123–133 (ESCI indexed).
- **Luqman Ahmad Nizam**, Shahab Khushnood, S. M. Farrukh, A. Naqvi, Khawaja Sajid Bashir, Ozair Ghufuran Bhatti, Masood Shah, Shehryar Manzoor, “Experimental Study of the Influence of the surrounding tube location and mass ratio on the Fluidelastic instability of flexibly mounted tubes in parallel triangular tube bundle”, International Journal of Acoustics and Vibrations Volume 23, Issue 4, pp 534–546 (IF:0.578).
- Hassan Arshad, Shahab Khushnood, **Luqman Ahmad Nizam**, Muhammad Ameer Ahsan and Ozair Ghufuran Bhatti, 2018 “Effect of fin geometry on Flow-Induced Vibration response of a finned tube in a tube bundle”, Journal of Applied Fluid Mechanics, Volume 11, Issue 4, pp 1143–1152, (IF:1.090)
- Muhammad Usman, Shahab Khushnood, **Luqman Ahmad Nizam**, Muhammad Ayub, Akmal Hafeez, Behzad Rustam, Junaid Muhammad Yousuf, Muhammad Shahid Bashir, 2019, “Wear Analysis of Tube-Baffle Vibration Interaction in a Tube Bundle” IEEE Access, Volume 7, pp 77804-77815 (IF:4.098).
- Muhammad Usman, Shahab Khushnood, **Luqman Ahmad Nizam**, Waqas Tanveer, Ahmad Shafi, Muhammad Ayub, Hassan Farid Khan, Behzad Rustam, 2019, “Investigation of the Effects of the Incident Flow Angle on Vibration Behavior in Heat Exchanger Tube Bundle” Advances in Science and Technology Research Journal, Vol. 13(2), pp. 186–194 (ESCI indexed).
- Muhammad Nouman, Ali Shahab Khushnood, **Luqman Ahmad Nizam**, Shahid Bashir, Akmal Hafeez, 2019 “Experimental Investigation of the Internal Tube Flow Effect on the Vibration Response of the Tubes in Shell and Tube Heat Exchanger”, Transactions of the Canadian Society for Mechanical Engineering, (Accepted for publication) (IF:0.243).

- M Ammar Akram, Shahab Khushnood, Syeda Laraib Tariq, Hafiz Muhammad Ali, **Luqman Ahmad Nizam**, 2019, “Vibration Based Gear Fault Diagnosis under Empirical Mode Decomposition and Power Spectrum Density Analysis” *Advances in Science and Technology Research Journal*, Vol. 13(3), pp. 192–200 (ESCI indexed).
- Muhammad Ameer Ahsan, Shahab Khushnood, **Luqman Ahmad Nizam**, Hassan Arshad and Ozair Ghufuran Bhatti, 2019, “Experimental Investigation of flow induced vibrations of spiral finned tube bundles subjected to air cross-flow” *Journal of Applied Fluid Mechanics*, (Under review) (IF:1.090)
- Ozair Ghufuran Bhatti, Shahab Khushnood, **Luqman Ahmad Nizam**, Ameer Ahsan, Hassan Arshad, 2019 “Experimental Investigation of tube-to-tube interaction in parallel triangular tube bundle” *International Journal of Acoustics and Vibrations*, (Under Review) (IF:0.578)).

#### **NATIONAL JOURNAL PUBLICATIONS**

- M. Ammar Akram, M. Nouman Nawaz, Aamir Mehmood, Hafiz Muhammad Ali, Aneela Anum, Shah Akmal, **Luqman Ahmad Nizam**, Shahab Khushnood, 2018 “Experimental Analysis of Tooth Breakage Effect on the Vibration Characteristics of Spur Gears” *Technical Journal, University of Engineering and Technology (UET) Taxila, Pakistan*, Vol. 23(1), pp. 42–52.

#### **BOOK CHAPTER**

- Shahab Khushnood, Zaffar Muhammad Khan, Muhammad Afzaal Malik, Zafarullah Koreshi, Muhammad Akram Javaid, Mahmood Anwer Khan, Arshad Hussain Qureshi, **Luqman Ahmad Nizam**, Khawaja Sajid Bashir, Syed Zahid Hussain (2012). “Cross-Flow-Induced-Vibrations in Heat Exchanger Tube Bundles: A Review”, *Nuclear Power Plants*, Dr. Soon Heung Chang (Ed.), ISBN: 978-953-51-0408-7.

#### **TRAINING & WORKSHOPS**

- One day workshop on “Cooling with Solar Energy: Potential, Options and Barriers” by Dr. Abdul Waheed Badar at HITEC University, Taxila on 12<sup>th</sup> September, 2017.
- Three days training on “Machine Condition Monitoring” organized by Centre for Vibration Analysis and Condition Monitoring (CVCM), DNPER at CHASHNUP Hostel, Islamabad from 17<sup>th</sup> to 19<sup>th</sup> October, 2018.

#### **TECHNICAL SKILLS**

- **Engineering Softwares:** AutoCAD, ANSYS, Pro-E Wildfire, Fluent, SIGVIEW, MATLAB.
- **Microsoft Office** (Word, PowerPoint, Excel)

#### **LANGUAGE**

- Urdu: Native language
- English: Proficient

#### **REFERENCES**

Available on request