

## HASSAN ELAHI

A Highly-Motivated Researcher with expertise in Smart Structures, Vibrations, MEMS, Piezoelectric Energy Harvesting and Aeroelasticity. He is passionately seeking to burnish his skills further, nurtured a strong passion to become a scientist and pursue research. In the pursuit of knowledge, he has always adopted a rigorous approach to attain an in-depth understanding of the subject at hand.

### **EDUCATION:**

1. **PhD Engineering** (2016-Feb 2020)

**Topic:** Design and Evaluation of an Aeroelastic Piezoelectric Energy Harvester.

**Supervisor:** Prof. Paolo Gaudenzi.

**Award:** On Scholarship.

**Classification:** Very Good.

**Department:** Department of Mechanical and Aerospace Engineering.

**University:** Sapienza University of Rome, Rome, Italy.

2. **MS Engineering** (2012-14)

**Topic:** Experimental Determination of Electrical Properties & Mechanical Quality Factor of Piezoelectric Material under Thermal Shocking Conditions.

**Supervisor:** Prof. Riffat Asim Pasha.

**Awards:**

- Award of Honor.
- On Scholarship.

**Department:** Department of Mechanical Engineering.

**University:** University of Engineering & Technology, Taxila, Pakistan.

4. **BS Engineering** (2008-12)

**University:** University of Engineering & Technology, Taxila, Pakistan.

### **PROFESSIONAL EXPERTISE:**

**Experience:**

1. Working as a **Lecturer** in Department of Mechanical Engineering at **Institute of Space Technology, Islamabad, Pakistan**. My responsibilities were:

- Courses that I am offering to undergraduate students are: Control System, Machine Design-I, Machine Design-II, CAD-I, CAD-II and Engineering Mechanics-II.
  - Advisor of ASME and IMechE IST Chapter.
  - Departmental Quality Assurance Coordinator (DQAC).
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2. Worked as **Teacher Assistant** in Mechanical Engineering Department at **University of Engineering & Technology Taxila, Pakistan**. (28-08-2012 to 04-09-2013). My responsibilities were:

- Delivered lecture of Manufacturing Processes-II (4 Credit Hours Subject).
- Conducted lab of Machine Design.
- Delivered 6 weeks lectures on “MATLAB” at IMechE Workshop UET Taxila.
- Delivered 6 weeks lectures on “Abaqus” at ASME workshop UET Taxila.

**Internships:**

- Kamra Avionics & Radar Factory (KARF), Kamra, Pakistan.
- Descon Integrated Project Limited, Lahore, Pakistan.

**Google Scholar Profile:**

Citations	h-index	i10-index
328	12	15

**REVIEWER:**

- IEEE Transactions on Aerospace and Electronic Systems
- Applied Sciences (MDPI)
- Sensors (MDPI)
- Journal of Mechanical Science and Technology (Springer)
- International Journal of Satellite Communications and Networking (Wiley)
- Journal of Low Frequency Noise, Vibration and Active Control (SAGE)
- Materials (MDPI)
- International Journal of Control (Wiley)
- Shock and Vibration (Hindawi)
- Latin American Journal of Solids and Structures (Iajss)
- Transactions on Electrical and Electronic Materials (TEEM)
- Asian Research Journal of Mathematics (SCIENCEDOMAIN international)
- Advances in Applied Ceramics; Structural, Functional and Bioceramics (Taylor & Francis)
- International Journal of Industrial Engineering: Theory Applications and Practice (IJETAP)
- University of Engineering and Technology Taxila. Technical Journal
- International Conference on Control Mechatronics and Automation, Spain
- International Conference on Mechanics and Mechatronics Research, Xi'an, China
- International Conference on Robotics Systems and Vehicle Technology, Wuhan, China
- 7th International Conference on Metallurgy Technology and Materials, Xiamen, China

**TECHNICAL COMMITTEE MEMBER OF CONFERENCES:**

- International Conference on Control Mechatronics and Automation, Tokyo, Japan (2016-19).
- International Conference on Mechanics and Mechatronics Research, Barcelona, Spain (2017).
- International Conference on Robotics Systems and Vehicle Technology, London, UK (2019).

**COMPUTER SKILLS:**

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|------------------------------|---|
| <b>1. 3 Months Course</b>    | CAD (in Electrical and Mechanical Drawing Design) |
| <b>2. Designer Tools:</b>    | Abaqus, Solid Works                               |
| <b>3. Research Software:</b> | EndNote, IBM SPSS                                 |
| <b>4. Languages:</b>         | Matlab, C++, Assembly                             |
| <b>5. Software:</b>          | LATEX, Mathematica, Proteus, Kiel                 |
|                              | PhotoScape, Picasa, Fotor                         |
| <b>6. MS Office:</b>         | Word, Power Point & Excel                         |

### **MEMBERSHIPS:**

- |   |              |
|---|--------------|
| • Pakistan Engineering Council (PEC).                                       | MECHATRO/994 |
| • American Society of Mechanical Engineers (ASME).                          | 000100385554 |
| • Institution of Mechanical Engineers UK (IMechE).                          | 80191789     |
| • American Society of Testing and Materials (ASTM).                         | 1771599      |
| • American Society of Heating, Refrigerating and Air-Conditioning Engineers |              |

### **LANGUAGES:**

Languages	Reading	Writing	Listening	Speaking
English	★ ★ ★ ★ ☆	★ ★ ★ ★ ☆	★ ★ ★ ★ ☆	★ ★ ★ ★ ☆
Urdu	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★
Chinese	★ ☆ ☆ ☆ ☆	★ ☆ ☆ ☆ ☆	★ ★ ☆ ☆ ☆	★ ★ ☆ ☆ ☆
Arabic	★ ★ ★ ☆ ☆	★ ★ ★ ☆ ☆	★ ★ ☆ ☆ ☆	★ ★ ☆ ☆ ☆
Punjabi	★ ★ ★ ☆ ☆	★ ★ ★ ☆ ☆	★ ★ ★ ★ ★	★ ★ ★ ★ ☆
Italian	★ ★ ★ ☆ ☆	★ ☆ ☆ ☆ ☆	★ ★ ☆ ☆ ☆	★ ☆ ☆ ☆ ☆

### **REFERENCES:**

Dr. Paolo Gaudenzi  
Professor, HoD,  
Department of Mechanical and Aerospace  
Engineering,  
Sapienza University of Rome,  
Rome 00186, Italy  
[paolo.gaudenzi@uniroma1.it](mailto:paolo.gaudenzi@uniroma1.it)

Dr. Asif Israr  
Professor, HoD,  
Department of Mechanical Engineering,  
Institute of Space Technology,  
Islamabad, Pakistan.  
[asif.israr@ist.edu.pk](mailto:asif.israr@ist.edu.pk)

Dr. Luca Lampani  
Professor.  
Department of Mechanical and Aerospace  
Engineering,  
Sapienza University of Rome,  
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