

# ***Dr. Muhammad Kamran***



## **CONTACT**

**Name:** Muhammad Kamran  
**Contact:** 0092343-3036072  
**Email:** [kamran@cloud.neduet.edu.pk](mailto:kamran@cloud.neduet.edu.pk)

## **EDUCATION & QUALIFICATIONS**

**PhD (CS)** 2017-2022, NED University of Engineering & Technology, CGPA 3.85.  
**MCIT** 2013 - 2015, NED University of Engineering & Technology, CGPA 3.56.  
**BSCS** 2007 - 2010, UBIT University of Karachi, CGPA 3.64 (2<sup>nd</sup> Position).

## **PROFESSIONAL CERTIFICATIONS:**

|                                     |                                             |
|-------------------------------------|---------------------------------------------|
| <b>Effective PhD Supervision</b>    | NED University of Engineering & Technology. |
| <b>Faculty Development Program</b>  | NED University of Engineering & Technology. |
| <b>Web Engineering</b>              | NED University of Engineering & Technology. |
| <b>Programmable Logical Control</b> | NED University of Engineering & Technology. |
| <b>Wind Turbine</b>                 | HAMDARD University.                         |

## **TECHNICAL SUMMARY:**

ASSEMBLY, C, C++, C#, ARDUINO & PYTHON, MATLAB.

## **BS FINAL YEAR PROJECT:**

***IoT – Home Automation system***

## **MS FINAL YEAR PROJECT:**

***IoT - 3 Phase wireless electricity monitoring system using GPRS.***

## **PhD RESEARCH TOPIC:**

***Practical Quantum Key Distribution based on Higher Dimension protocol.***

## **PROFESSIONAL PROJECTS:**

- *Persistence of Vision Display 3 IN 1.*
- *Electronic Load HMI Design (For R&D Organization).*
- *Data Acquisition System for Solar Panels Using NI-DAQ Cards (For R&D Organization).*
- *Optical Quantum Random Number Generator.*

## **EMPLOYMENT HISTORY:**

**Organization:** R & D

**January 24<sup>th</sup>, 2006 – May 24<sup>th</sup> 2021.**

## **TEACHING EXPERIENCE:**

**CS & IT Dept. of NED University of Engineering & Technology**

**Assistant Professor (Adhoc)**

**27<sup>th</sup> Oct, 2021- Present**

**Lecturer (Regular)**

**1<sup>st</sup> July, 2022- 26<sup>th</sup> Oct, 2022**

**Lecturer (Contract)**

**25<sup>th</sup> May, 2021- 30<sup>th</sup> June, 2022**

## **ACHIEVEMENT:**

*Best Performance awards for consecutive two years 2007 & 2008.*

*Annual Excellence awards for the years 2012 & 2014.*

*Distinguished Service award for the year 2018.*

## **ACADEMIC STAGE:**

*Training (of 3 weeks related to Quantum State Reconstruction) at INRIM, Turin, Italy Nov' 2023.*

## **PUBLICATION & POSTERS:**

1. **Kamran, Muhammad, Tahir Malik, Ayesha Jamal, Muhammad Fahim Ul Haque, and Muhammad Mubashir Khan. "Coherent detection of discrete variable quantum key distribution using homodyne technique." *Applied Physics B* 131, no. 9 (2025): 180.**
2. **Zafar, Roohi, Muhammad Kamran, Tahir Malik, Kashish Karera, Muhammad Humayon, Ghulam Mustafa, and Muhammad Mubashir Khan. "Randomness from radiation: evaluation and analysis of radiation-based random number generators." *The European Physical Journal Plus* 140, no. 5 (2025): 1-11.**
3. **Kamran, Muhammad, Muhammad Mubashir Khan, and Tahir Malik. "Induced turbulence in the quantum channel of high dimensional QKD system using structured light." *Applied Physics B* 130, no. 4 (2024): 56.**
4. **Kamran, Muhammad, Muhammad Mubashir Khan, and Tahir Malik. "Decoy state hd qkd system for secure optical communication." In *2021 International Conference on Cyber Warfare and Security (ICCWS)*, pp. 87-92. IEEE, 2021.**
5. **Kamran, Muhammad, Tahir Malik, and Muhammad Mubashir Khan. "Evaluation of eavesdropping error-rates in higher-dimensional QKD system implemented using dynamic spatial modes." *International Journal of Quantum Information* 19, no. 06 (2021): 2150030.**
6. **Kamran, Muhammad, DR KHAN, Tahir Malik, and Asad Arfeen. "Quantum key distribution over free space optic (FSO) channel using higher order Gaussian beam spatial modes." *Turkish Journal of Electrical Engineering and Computer Sciences* 28, no. 6 (2020): 3335-3351.**

7. *Kamran M, Khan M.M. & Malik T. “High Dimensional Quantum Key Distribution System Using Structured Light” (Poster accepted in Qcrypt2021).*

**FUNDINGS ACHIEVED:**

- *Co-PI in Centre for Quantum Technologies at CSIT, NED-UET in 2024 till present.*
- *Sindh Research Support Program funding in 2022-2024. (Co-PI)*
- *MoST funding and HEC funding through NED UET in 2020-2022. (PhD Scholar)*

**INTEREST:**

- *Quantum Cryptography / Quantum Communication / Quantum Computation.*
- *Quantum Optics / Quantum Mechanics.*
- *Quantum Experimentalist.*