MUHAMMAD KAMRAN

CONTACT

Name: *Muhammad Kamran*
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PERSONAL INFORMATION

Religion: *Islam*
Nationality: *Pakistani*
Language: *Urdu & English*

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 (2nd Position).***

PROFESSIONAL CERTIFICATIONS:

Faculty Development Program	*NED University of Engineering & Technology.*
Web Engineering	*NED University of Engineering & Technology.*
Programmable Logical Control	*NED University of Engineering & Technology.*
Wind Turbine	*HAMDARD University.*

TECHNICAL SUMMARY:

ASSEMBLY, C, C++, C#, ARDUINO & PYTHON, VISUAL STUDIO 2003, 2005 & 2008.

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).*

EMPLOYMENT HISTORY:

Organization: R & D ***January 24th, 2006 – May 24th 2021.***

TEACHING EXPERIENCE:

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

Assistant Professor	***27th Oct, 2021- Present***
Lecturer	***25th May, 2021- 26th Oct, 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 of INRIM, Turin, Italy ***Nov' 2023****.*

PUBLICATION & POSTERS:

1. ***Kamran, M., Khan, M.M. & Malik, T. Induced turbulence in the quantum channel of high dimensional QKD system using structured light. Appl. Phys. B 130, 56 (2024).***
2. ***Kamran M, Khan M.M. & Malik T. Decoy state HD QKD system for secure optical communication. In2021 International Conference on Cyber Warfare and Security (ICCWS) 2021 Nov 23 (pp. 87-92). IEEE.***
3. ***Kamran M, Malik T, Khan M.M. Evaluation of eavesdropping error-rates in higher-dimensional QKD system implemented using dynamic spatial modes. International Journal of Quantum Information. 2021 Oct 20:2150030.***
4. ***Muhammad KAMRAN, Tahir MALIK, Muhammad Mubashir KHAN & Asad ARFEEN. "Quantum key distribution over free space optic (FSO) channel using higher order Gaussian beam spatial modes." Turkish Journal of Electrical Engineering & Computer Sciences 28, no. 6 (2020): 3335-3351.***
5. ***Kamran M, Khan M.M. & Malik T. "High Dimensional Quantum Key Distribution System Using Structured Light" (Poster accepted in Qcrypt2021).***

FUNDINGS ACHIEVED:

- *MoST funding and HEC funding through NED UET in year* ***2020****. (PhD Scholar)*
- *Sindh Research Support Program funding in year* ***2021****. (Co-PI)*

INTEREST:

I am a quantum enthusiast, and really interested to learn the practical stuff in the quantum optics domain. I have practically simulated the 4- Dimensional Quantum Key Distribution system using structured light in my PhD. I have simulated the free space QKD system. Nowadays, I am working on developing the proof of concept model of the mentioned QKD system. Also exploring the atmospheric effects which cause turbulence in the quantum channel. Also interested in the fiber-guided and under-water version of the said system.