

Prof. Dr. Muhammad Khurram

*Department of Computer and Information Systems Engineering
NED University of Engineering and Technology, Karachi, Pakistan
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EDUCATIONAL BACKGROUND

Massey University, New Zealand

PhD (Science) (2012)

NED University of Engineering and Technology, Pakistan

M. E (By Research) – CS (2006)

NED University of Engineering and Technology, Pakistan

B.E. – CS (2002)

ACADEMIC EXPERIENCE

NED University of Engineering and Technology, Pakistan

Department of Computer and Information Systems Engineering Associate

Professor – BPS 21

Experience – 18+ Years

R&D ACTIVITIES

Director Research Center for Artificial Intelligence

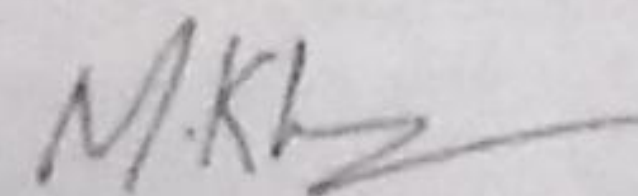
- RCAI was established in CIS Department in 2016 with the focus to applied research to create its impact at local and global levels. Several projects related to intelligent cyber physical systems & IoT, machine learning, haptics, virtual reality and gaming etc. are underway.

Regional Director National Center of Artificial Intelligence at NED UET and Head of Smart City Lab

- NCAI was established by HEC-Pakistan and two of its affiliated labs are established at NED UET. Smart City Lab at NED UET is one of these two labs focusing on applications of Computer Vision and Internet of Things.

Research interests

- Artificial Intelligence, Computer Vision, Smart Cities, RF IC Design, VLSI Systems Design, Digital Signal Processing, On-chip Bio-systems, Embedded Systems, IoT
- Produced two Phd graduates and currently Supervising Four (02) PhD Students in the field of On-chip biological system modeling, neuromorphic hardware design and 5G Networks.
- Supervising various research based projects at postgraduate and undergraduate levels.



FUNDED PROJECTS

- Won funding of Rs. 170Million for establishing two affiliated labs of National Center of Artificial Intelligence at NED UET
- Won funding of Rs. 5Million, a Technology Development Funding Grant from HEC
- Won funding worth Rs500000/- for the project "*Entrepreneurship Awareness and Leadership Development Programme for School children*" under **Social Integration and Outreach Programme of Higher Education Commission of Pakistan.**
- Won funding worth Euros 100000/- for the project "Water Resource Management for Agricultural Areas of Pakistan" from DAAD – Germany under 'German-Pakistani Research Collaboration Programme'
- Won funding worth Rs375000/- for the project "Pakistan Student Satellite Programme" from SUPARCO

HONORS and AWARDS

- *Founder of Aqua Agro, a leading agri-data company in Pakistan to address water resource management and smart irrigation through Artificial Intelligence and Internet of Things. The startup company was incubated and graduated from the 1st batch of the National Incubation Center, Karachi. The company has been incorporated with SECP in 2018 and now in business.*
- Head of IEEE student branch of NED University and take care of different activities of this student branch related to research, development and training.
- Co-Chair of the IEEE Robotics and Automation Society, Karachi Section.

PUBLICATIONS

International Peer-Reviewed Journals

- 1) Saad Qasim Khan, Arfan Ghani, **Muhammad Khurram** , "Frequency-Dependent Synaptic Plasticity Model for Neurocomputing Applications", International Journal of Bio-Inspired Computation, (In-press), 2020.
- 2) M Marvi, A Aijaz, **Muhammad Khurram**, "On the Use of ON/OFF Traffic Models for Spatio-Temporal Analysis of Wireless Networks" , IEEE Communications Letters 23 (7), 1219-1222, 2019.
- 3) U Ainuddin, **Muhammad Khurram**, SMR Hasan, "Cloning the Switch: Digital and Markov Representations", IEEE Transactions on NanoBioscience 18 (3), 428-436, 2019
- 4) M Marvi, A Aijaz, **Muhammad Khurram**, "Toward a Unified Framework for Analysis of Multi-RAT Heterogeneous Wireless Networks" Wireless Communications and Mobile Computing 2019.
- 5) M Awais, M Marvi, SSA Zaidi, **Muhammad Khurram** "A Cost-effective Solution for Internet of Things Enabled Ultrasonic Anemometer Sensor Design", NED University Journal of Research, 31-38. 2018

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