

Dr. Muhammad Moinuddin

Associate Professor (Electronics & Communication) Electrical and Computer Engineering Dept.,
King Abdulaziz University

Education

Degree	Field	Institution	Year
PhD	Electrical Engineering	King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia	2007
MS	Electrical Engineering	King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia	2001
BS	Electrical Engineering	N.E.D. University of Engineering & Technology, Karachi, Pakistan.	1998

Academic Experience

From	To	Institution	Rank	Title (Chair, Coordinator, etc.)	Full or Part Time
2007	2010	King Fahd University of Petroleum & Minerals	Assistant Professor		Full Time
2010	2013	Iqra University	Associate Professor	HOD Telecommunication Engineering Department	Full Time
2013	Feb. 2015	King Abdulaziz University	Assistant Professor		Full Time
Feb. 2015	To Date	King Abdulaziz University	Associate Professor		Full Time

Funded Research Projects and Patents from the Past Five Years

Title	Grant Source	Role
Packets' Waiting and Sojourn Times Analysis Of Cooperative HARQ protocols for Cognitive Radio Networks (Under Process)	CEIES Grant	Principal Investigator
Waveform Optimization for Future Wireless Radio Underwater Acoustic Communication Systems (completed in 2018)	CEIES Grant	Principal Investigator
Characterization and Beamforming of Interference Limited MIMO Cellular Networks: An Indefinite Quadratic Forms Approach (Completed in 2017)	KAU General DSR Grant	Principal Investigator
Diagnosis and classification of Parkinson's disease using the single photon emission computed tomography (SPECT) Images (Under Process)	KAU General DSR Grant	Co-Investigator
Impact of Point Mutations on the PDZ Domain Peptide Binding Specificity: A Machine Learning Perspective (Under Process)	KAU General DSR Grant	Principal Investigator
A Novel Class of Stochastic Gradient Adaptive Algorithms Based on q-Derivative (Completed in 2014)	KAU Distinct Study DSR Grant	Co-Investigator
Adaptive Decision Feedback Equalization for Wideband MIMO Systems Using Constrained Optimization Techniques (Completed in 2013)	KFUPM DSR Grant	External Consultant

Certifications and Professional Registrations

Member of Pakistan Engineering Council (PEC) Elect/14560

Honours and Awards

1. Research Assistant Fellowship for M.S. in Electrical Engineering Department of, King Fahd University of Petroleum & Minerals, Saudi Arabia, 1999.
2. PhD Fellowship for PhD in Electrical Engineering Department of, King Fahd University of Petroleum & Minerals, Saudi Arabia, 2001.
3. IEEE award in recognition to the paper in the 2nd IEEE GCC Conference, Bahrain, November 2004.
4. Member of the Editorial Board of the journal *Asian Journal of Engineering, Sciences & Technology*, Pakistan, since 2011.
5. Member of the Editorial Board of the journal *Scientia Bruneiana* (Universiti Brunei Darussalam), Brunei Darussalam, since 20118.

Institutional and Professional Services *(administration, committees, units, etc.)*

1. Teaching Area Focus Team (TAFT) coordinator for the Communication and Signal processing courses, King Abdulaziz University, KSA.
Head of Department, Telecommunication Engineering program, Iqra University, Pakistan, 2011-2012.
2. Knowledge Unit Leader (KUL) for Wireless Communications and Signal Processing related Courses, Iqra University, 2010-2012.
3. Member of editorial board of the journal "Asian Journal of Engineering Sciences and Technology", Iqra University, 2011-present.
4. Academic Supervisor of MS Thesis of more than 15 students.
5. Academic Supervisor of PhD Thesis of 5 students.
6. Coordinator of several Faculty of Engineering Committees (Curriculum, Postgraduate, and Strategic Planning), Iqra University, 2010- 2012.

Principal Publications from the Past Five Years

1. S. M. Asad, M. Moinuddin, A. Zerguine, and J. Chambers, "A Robust and Stable Variable Step-Size Design for the Least-Mean Fourth Algorithm using Quotient Form" accepted in *Signal Processing Elsevier*, Nov. 2018.
2. S Khan, J Ahmad, I Naseem, **M Moinuddin**, "A Novel Fractional Gradient-Based Learning Algorithm for Recurrent Neural Networks," *Circuits, Systems, and Signal Processing*, Vol. 37, Issue, 2 pp: 593-612, Springer US, 2018.
3. **M. Moinuddin**; I. Naseem; W. Aftab, S. A. Bencherif, and A. Memich "A weighted cosine RBF Neural Networks," in *J. Mol. Microbiol Biotechnol* , June 2017.
4. A Ahmed, **M Moinuddin**, UM Al-Saggaf, "q-State Space Least Mean Family of Algorithms," *Circuits, Systems, and Signal Processing*, pp: 1-23, Springer US, 2017. A. K. Hassan; **M. Moinuddin**; U. M. Al-Saggaf; T. Y. Al-Naffouri, "Performance Analysis of Beamforming in MU-MIMO Systems for Rayleigh Fading Channels," *IEEE Access* , vol. PP, no.99, pp.1-1, March 2017
5. T. Y. Al-Naffouri, **M. Moinuddin**, Nizar Ajeeb, Babak Hassibi, and Aris L. Moustakas, "On the Distribution of Indefinite Quadratic Forms in Gaussian Random Variables," *IEEE Transactions on Communications*, Vol. 64, No. 1, pp: 153-165, Jan. 2016.
6. **M. Moinuddin**, U. M. Al-Saggaf, and A. Ahmed, "Family of state space least mean power of two-based algorithms," *EURASIP Journal on Advances in Signal Processing*, Vol. 2015, Issue 1, pp. 39, May 2015.
7. U. M. Al-Saggaf, **M. Moinuddin**, M. Arif, and A. Zerguine, "The q-Least Mean Squares algorithm," *Signal Processing Elsevier*, Vol. 111, pp. 50-60, June 2015.