

DR ZEESHAN AZMAT

PhD Electrical Engineer
457 Umar Block, Allama Iqbal Town,
Lahore, Pakistan.

Mobile: +92-336-4655111

E-mail: zeeshan.ze@pu.edu.pk

Date of qualifying PhD: 10/02/2017

PEC Number: Elect 22466

MISSION STATEMENT:

To contribute knowledge to the global research community because knowledge shapes the future and gear up for the technological advances by engaging in exciting research projects that focus on solving applied problems in the area of Signal Processing and 5G Wireless Communications.

ACADEMIC QUALIFICATION:

2012 – 2016: Macquarie University Sydney, Australia.

PhD Engineering (Wireless Communications)

2007 – 2009: University of Engineering & Technology, Lahore, Pakistan.

M.Sc. Electrical Engineering (Electronics & Communication)

2003 – 2007: University of Engineering & Technology, Lahore, Pakistan.

BSc. Electrical Engineering (Honors)

COURSEWORK

- Signals and Systems
- Adaptive Filters
- Control Systems
- Electromagnetics
- Digital Signal Processing
- Statistical Signal Processing
- Communication Systems
- Signal Detection Theory
- Digital Communications
- Communication Theory
- Stochastic Processes
- Error Correcting Codes

CAREER SUMMARY:

Jan. 2008- To Date **University of the Punjab, Lahore**

Latest Position: **Assistant Professor of Electrical Engineering**
Performing teaching and research in the areas of Signal Processing and Wireless Communications.

International Experience:

Sept. 2013 to Sep. 2015. **Commonwealth Scientific and Industrial Research Organization (CSIRO)**

Position: **Visiting Postgraduate Researcher**
Performed research on Multi-cell fixed wireless backhaul in collaboration with Macquarie University, Sydney, Australia

Feb. 2011 to Jan. 2012. **King Fahd University of Petroleum and Minerals, Saudi Arabia**

Position: **Lecturer-B**
Provided laboratory demonstrations to the students of B.Sc. Electrical Engineering.

RESEARCH INTERESTS:

- Cognitive Radio and Spectrum Sensing Techniques
- 5G Mobile Wireless Communication Systems Design and Analysis
- Statistical Signal Processing
- Compressive Sensing
- Target Tracking Filters

ABILITIES / SKILLS:

- Excellent Communication Skills in English
- Ability to Work as a Team Player
- Ability to Accept Challenges
- Excellent Team Management

PROFESSIONAL AFFILIATION:

- Member Pakistan Engineering Council (PEC)
- Member IEEE

SELECTED PEER-REVIEWED RESEARCH PUBLICATIONS:

PhD Thesis

Title: **Massive MIMO wireless systems under an RF chains constraint**

Available Online:

www.researchonline.mq.edu.au/vital/access/manager/Repository/mq:70232

Journal Articles

[J2] A. Khan, N. Butt, **Z. A. Shaikh**, "Performance Evaluation and Optimization of Stepped Impedance and Stub-based Low-pass Filters for S-Band Applications ", BUJICT, Article in Press, 2018.

[J1] M. Ahmad, H. M. Tanveer, **Z. A. Shaikh**, F. Zeeshan, U. S. Bajwa, "A Penalized-Likelihood Image Reconstruction Algorithm for Positron Emission Tomography Exploiting Root Image Size," Int'l J. Advan. Comp. Science and Appl. (IJACSA), Volume 9 Issue 4, 2018.

Conference Proceedings

[C6] S. V. Hanly, I. B. Collings, **Z. A. Shaikh**, , P. A. Whittings, "Law of Large Numbers Analysis of Antenna Selection aided Downlink Beamforming in Massive MISO under RF Chains Constraint," Proc. Australian Communication Theory Workshop (Workshop 2016), Melbourne, Australia.

[C5] **Z. A. Shaikh**, I. B. Collings, S. V. Hanly, P. A. Whittings, "Compressive Sensing aided Data Detection for MIMO ISI Wireless Channels", Proc. IEEE Int'l Conf. Commun. (ICC 2015), London, UK.

[C4] **Z. A. Shaikh**, S. V. Hanly, I. B. Collings, "Analysis of Adaptive Least Squares Filtering in Massive MIMO", Proc. Australian Communication Theory Workshop (Workshop 2014), Sydney, Australia.

[C3] **Z. Azmat** et al, "Power Allocation for Gaussian Mixture Model Prior Knowledge in Wireless Sensor Networks" Proc. Int'l. Conf. Acoustics, Speech & Signal Processing (ICASSP 2013), Vancouver, Canada.

[C2] U. Farooq, M. H. Atiq, M. U. Asad, A. Iqbal, **Z. Azmat**, "Design and Development of an Image Processing based Adaptive Traffic Control System with GSM interface," Proc. IEEE Int'l Conf. Mach. Vision (ICMV'09), Dubai, UAE.

[C1] **Z. Azmat** et al, "Spectrum sensing performance of Bi-threshold detector in Rayleigh and Rician Fading Environments," Proc. IEEE Int'l Conf. Current Trends Inf. Technol. (CTIT'09), Dubai, UAE.

REFEREES:

Name: Dr. Philip Whittings

Position: Vice Chancellor Innovation Fellow (Formerly at Bell Labs, New Jersey, USA)

Organisation: Macquarie University, Sydney, Australia.

Telephone No.: + 61 2 9850 4243

Email: philip.whiting@mq.edu.au

Name: Prof. Dr Stephen Hanly

Position: CSIRO-Macquarie Wireless Chair

Organization: Macquarie University, Sydney, Australia.

Telephone No.: + 61 2 9850 4243

Email: stephen.hanly@mq.edu.au