ZEESHAN QAMAR

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Academic Qualification

2014-2017: Doctor of Philosophy in Electronic Engineering, City University of Hong Kong, Kowloon, Hong Kong **(CGPA: 4.15 / 4.3)**

- **PhD Dissertation:** Enhanced Components for Butler Matrix.

2011-2013: Master of Science in Electrical Engineering, COMSATS Institute of Information Technology, Islamabad, Pakistan. **(CGPA: 3.3 / 4)**

- **MS Thesis:** Microstrip Phased Array Optimization using Meta-materials.

2006-2010: Bachelor of Science in Electrical (Telecommunication) Engineering, COMSATS Institute of Information Technology, Islamabad, Pakistan. **(CGPA: 3.23 / 4)**

- **BS Final Year Project:** Planar Monopole Stair Case Antenna for Ultra-Wide Band (UWB) and its 5 GHz dual notched band Characteristics.

Awards / Achievements

- 2016-2017: **Research Tuition Scholarship** by School of Graduate Studies, City University of Hong Kong.
- 2016/17: **Outstanding Academic Performance Award** by School of Graduate Studies, City University of Hong Kong.
- 2015/16: **Outstanding Academic Performance Award** by School of Graduate Studies, City University of Hong Kong.
- 2014-2017: **Postgraduate Studentship** covering the studies towards the Ph.D. degree at City University of Hong Kong.
- 2011: **Research Productivity Award** by Department of Electrical Engineering, COMSATS Institute of Information Technology in Pakistan-China International Business Forum.
- 2011: **Awarded Honorarium** for **Best Performance** by Department of Electrical Engineering, COMSATS Institute of Information Technology.
- 2010: **Winner** in category (**Explore-a-Vision**) of 2nd All Pakistan IEEE – GIKI ElectroniX Olympiad.
- 2007: **Scholarship** in 3rd semester of Bachelor Program by Department of Electrical Engineering, COMSATS Institute of Information Technology for excellence in studies.

Working Experience

- **Fellow Postdoctoral,** Advanced Radar Research Center, The University of Oklahoma, Norman, Oklahoma State, United State of America. **(23rd April 2018 – Present)**
    - **Research works:** Artificial dielectric materials, Antenna aperture design and surfaces wave suppression, Microstrip patch antenna element and array, PAR feed architectures.
- **Research Associate,** Department of Materials Science and Engineering, City University of Hong Kong, Kowloon, Hong Kong. **(20th November - 20th April 2018)**
    - **Research works:** Designing microwave circuits, Antennas and antenna arrays**.**
- **Lecturer,** Department of Electrical Engineering, COMSATS Institute of Information Technology, Islamabad, Pakistan. **(1st June 2013 - 30th August 2014)**
    - **Research works**: RF Antenna Designing & Modeling.
    - **Supervised/Co-supervised Final Year Projects:** Rectenna for wireless power transmission and energy harvesting. Radiation pattern measurement equipment for principal plane, UWB antenna for mobiles phones and its SAR analysis, Open BTS implementation using USRP 1.
- **Research Assistant,** Department of Electrical Engineering, COMSATS Institute of Information Technology, Islamabad, Pakistan. **(19th July 2010 - 30th May 2013)**
    - **Research works**: RF Antenna Designing & Modeling.
    - **Lab demonstrator** of undergraduate courses like Microwave Engineering, Antenna Design & Radio-wave Propagation labs.

Additional Research Experience

- **Co-principal Investigator** in a Research Project titled "Measurement of Antenna Radiation Pattern in Principle Planes" funded by Office of Research, Innovation and Commercialization (ORIC), Pakistan.

Publication

Journals

- **Z. Qamar,** S. Y. Zheng, W. S. Chan and D. Ho, "Coupling coefficient reconfigurable wideband branch line coupler topology with harmonic suppression", IEEE Transaction on Microwave Theory and Techniques, Vol. 66, No. 4, pp1912-1920, April 2018.
- S. Y. Zheng, Z. L. Su, Y. M. Pan, **Z. Qamar** and D. Ho, "New dual-/tri-band bandpass filters and diplexer with large frequency ratio", IEEE Transaction on Microwave Theory and Techniques", IEEE Transaction on Microwave Theory and Techniques, Early Access pp1-15, May 2018.

- **Z. Qamar**, S. Y. Zheng, W. S. Chan and D. Ho, "Coupling coefficient range extension technique for broadband branch-line couplers", Journal of Electromagnetic Waves and Applications, Vol. 32, No. 1, pp92-112, Jan. 2018.
- **Z. Qamar**, W. S. Chan and D. Ho, "Wide bandwidth arbitrary phase difference branch line coupler", Microwave and Optical Technology Letters, Vol. 59, No. 9, pp2241-2245, September 2017.
- **Z. Qamar,** S. Y. Zheng, W. S. Chan and D. Ho, "An equal-length multi-way differential meta-material phase shifter", IEEE Transaction on Microwave Theory and Techniques, Vol. 65, No. 1, pp136-146, January 2017.
- **Z. Qamar**, U. Naeem, S. A. Khan, M. Chongcheawchamnan and M. F. Shafique, "Mutual coupling reduction for high-performance densely packed patch antenna arrays on finite substrate", IEEE Transactions on Antennas and Propagation, Vol. 54, No. 5, pp1653-1660, March 2016.
- M. F. Shafique, **Z. Qamar**, L. Riaz, R. Saleem and S. A. Khan, "Coupling suppression in densely packed microstrip arrays using metamaterial structure", Microwave and Optical Technology Letters, Vol. 57, No. 3, pp759-763, March 2015.
- **Z. Qamar** and H. C. Park, "Compact waveguided metamaterials for suppression of mutual coupling in microstrip array", Progress in Electromagnetics Research, Vol. 149, pp183-192, October 2014.
- **Z. Qamar,** L. Riaz, M. Chongcheawchamnan, S. A. Khan and M. F. Shafique, "Slot combined complementary split ring resonators for mutual coupling suppression in microstrip phased arrays" IET Microwaves, Antennas & Propagation, Vol 8, No. 15, pp1261-1267, July 2014.
- K. S. Alimgeer, S. A. Khan, **Z. Qamar** and S. M. Abbas "Planar monopole stair case antenna for ultra-wide band", Przeglad Elektrotechniczny Electrical Review, Vol 1a, pp227-229, January 2013.
- K. S. Alimgeer, S. A. Khan, **Z. Qamar** and S. M. Abbas "Planar monopole UWB antenna with 5GHz dual notched band characteristics", Przeglad Elektrotechniczny Electrical Review, Vol 6, pp 295-299, January 2012
- A. W. Azim, S. A. Khan, **Z. Qamar**, K. S. Alimgeer and S. M. Ali "Current distribution dynamics in microstrip patch antenna arrays", International Journal of Future Generation Communication and Networking Vol. 4, No. 3, September 2011.
- Q. P. Chen, **Z. Qamar**, S. Y. Zheng, Y. L. Long and D. Ho, "Design of a compact wideband butler matrix using vertically installed planar structure", IEEE Transaction on Components, Packaging and Manufacturing Technology. (Under Review)
- L. Gao, **Z. Qamar** and S. Y. Zheng "Wideband arbitrary phase-difference coupled-line coupler with tight coupling coefficient and small phase variation" IET Microwaves, Antennas & Propagation. (Under Review)

Conferences

- Z. Y. Ye, Y. F. Pan, **Z. Qamar**, Z. Y. Lin, Y. J. Cai and S. Y. Zheng, "Dual-band quadrature coupler with a small frequency ratio", 16th International Symposium on Microwave and Optical Technology (ISMOT), Seoul, South Korea, June 2017.

- **Z. Qamar**, W. S. Chan and D. Ho, "Design technique for meta-structure planar directional couplers with arbitrary coupling ratios", 21st International Conference on Microwave, Radar and Wireless Communications (MIKON), Krakow, Poland, May 2016.
- **Z. Qamar** "Circularly polarized microstrip patch antennas with multiple techniques", IEEE Fly-by-Wireless Workshop, Montreal, Canada, June 2011.
- K.S. Alimgeer, S. A. Khan, **Z. Qamar** and M. Zubair "Parametric trend analysis of miniature slotted antenna with dual-band characteristics", Proceedings on the 2nd National Conference on Telecommunications, Arequipa, Peru, May 2011.
- K.S. Alimgeer, S. M. Abbas, H. Zahra, **Z. Qamar** and S. A. Khan, "Multi-band resonance generation by feed Manipulation in micro-strip antenna", 4th World Congress Aviation in the XXI Century, Vol 2, Pages 22.72 – 22.81, Kyiv, Ukrain, September 2010.

Memership

- Member of **IEEE** (Member #: 91148416)

Technical Skills

- **RF Simulation Tools:** High Frequency Structure Simulator, Advanced Design System, CST Microwave Studio.
- **Other Tools:** MATLAB, Origin, Microsoft Office, Microsoft Visio.

Co-curricular Experiences

- **Coordinated** a Short course on **"MIMO for Wireless Communications"** in collaboration with Pakistan Engineering Council (PEC), held on 26-12-2013 in COMSATS Institute of Information Technology, Islamabad
- **Coordinated** a Seminar of **"What an RF Engineer can do?"** held on 21-03-2012 in COMSATS Institute of Information Technology, Islamabad.
- **Chief Organizer** in All Pakistan COMSATS Engineering Project Exhibition (CEPEX'11).
- **Instructed** a Workshop of **Antenna Design using HFSS Simulation Tools** held from 19-07-2010 to 30-07-2010 in COMSATS Institute of Information Technology, Islamabad.