Prof Dr Hamood Ur Rahman, PhD

Phone: +923455260508
E-mail: khawajahamood@yahoo.com
https://www.linkedin.com/in/hamood-ur-rahman-phd-b8a52620/

Summary

Dr. Hamood has a distinguished academic and professional background, with a **Doctorate (PhD) in Electrical Engineering** from the University of New South Wales (UNSW), Sydney, Australia, and MBA from Karachi Institute of Engineering and Technology (KIET). With a versatile career spanning across government, academia, public, private and R&D sectors has developed a unique blend of expertise in technology and business development, change and conflict management and strategic policy-making. Known for a collaborative leadership style, has excelled in guiding organizations through digital transformation, industrial modernization and performance optimization while fostering strong stakeholder relationships. His strategic thinking and executive experience have been integral in managing high-scale international partnerships, executing large-scale technology infrastructure projects and spearheading organizational performance improvements.

In Research & Innovation (R&I), Dr. Hamood has demonstrated exceptional skills in developing products and solutions. He has provided strategic leadership in integrated policies and action plans aimed at enhancing climate resilience through multidisciplinary collaboration. This includes the creation of research portals, performance dashboards, and fostering national and international research partnerships. As an academician, has made significant contributions as a Professor and Head of the Electrical Engineering Department, guiding both undergraduate and postgraduate programs while publishing 56 research articles and delivering keynote speeches at esteemed conferences. He has also been instrumental in nurturing future leaders, supervising PhD and MS students and defining long-term academic goals that align with global research excellence.

Education

PhD Electrical Engineering, (RF MEMS/NEMS) **(2007- 2010)**

The University of New South Wales (UNSW), Sydney, Australia

Thesis Title: Experimental Considerations for Fabrication of Radio Frequency Micro and Nano Electro Mechanical Systems Switches

Master in Business Administration (MBA), CGPA 3.85 out of 4.0 **(2002-2004)**

The Karachi Institute of Economics and Technology, Karachi, Pakistan

Thesis Title: Analysis of KESC Computer Department using BPR Approach

MSc Electrical Engineering, CGPA 3.69 out of 4.0 **(1994-1995)**

The National University of Sciences and Technology (NUST), Islamabad Pakistan

Thesis Title: Wavelet Transform Based ECG signal Analysis

B.Sc Electrical Engineering (1st Division) **(1987-1991)**

The University of Engineering and Technology (UET), Lahore Pakistan

Thesis Title: Future of Broadcasting Systems in Pakistan

Research Skills & Interests

Research interests include Micro/Nano Fabrication and Process Development, RF MEMS/NEMS Design, Fabrication and Analysis, MEMS/NEMS applications, Microstrip Antennas, Microwave Devices, laser application through robotics and convertor from DC to AC in industrial engineering.

Strong skills in Business development, digital transformation, dashboard/portal & strategic policies /framework development, business processes & research strategy development, managing research through innovation for commercialization, R&I collaboration, cooperation/collaboration agreement negotiations.

Expert skills also include development of research database, defining STI R&I Frameworks, establishment of next generation research office, research & performance analysis and Business Process Reengineering (BPR).

Work Experience

- **Consultant Business Development and Project Management, TECHSYSTEMS International (Pvt) Ltd, (November 2024-Todate)**
  - Engage with OEM of the projects for smooth pre-& after sales activities.
  - Develop technical policies/ manuals and technology strategy documents for the project completion.
  - Provide Project Management & Technical Support for projects / products exclusively
- **Chief Consultant Solutions Architect and Digital Transformation, Tracer World (Pvt) Ltd, (October 2024-Todate)**
  - Engage with client to carryout client need assessment.
  - Conduct gap analysis utilizing analytical tools and methodologies.
  - Develop technology strategies, processes to improve efficiency and effectiveness.
  - Design customise solutions by implementing new technologies and processes.
  - Develop data driven strategies for impact assessment and organizational efficiency.
  - Develop dashboards for organizational leadership through impactful data analytics.
- **Chief Technology Officer (CTO), Telecostal Solutions (Pvt) Ltd, (June 2023 - todate)**
  - Lead the digital transformation of the organization through process optimization and business needs.
  - Provide technical consultancy/ expertise for business process optimization through gap analysis.
  - Collaborate with stakeholders on development of emerging technologies solutions.
  - Responsible for development of long-term strategies for the organization keeping its vision, mission and objectives as prime focus.
  - Delivery of new R&D projects within scope, budget and timelines.
- **Director Research, National University of Sciences and Technology (NUST) Islamabad (Sep 2021- Jun 2023)**
  - Lead the development of performance analysis dashboards, research databases and innovation portals for commercialization and collaboration, while managing multiple projects and stakeholders throughout their lifecycle.
  - Prepare and manage proposals for national and international projects, develop strategies for R&I frameworks, including those related to climate resilience and SDGs.
  - Oversee the development and implementation of research policies, strategies and frameworks including those for microelectronics, while driving continuous quality improvement and tracking performance to meet organizational goals.

- **Deputy Director General, SUPARCO (May 2016 – Aug 2021)**
  - As head of manufacturing group, was leading a team of more than 100 scientists, engineers and staff.
  - Prime tasks included development of indigenous satellite and satellite development facility.
  - As contact person from Pakistan, defined Strategic Space Cooperation framework.
  - As project director & coordinator successfully completed US $190 &130 Million Projects respectively.
  - Conducted Feasibility Study, preparation of RFP, Evaluation of Technical Proposals & contract signing of technical infrastructure project. Demonstrated execution of project as Project Director.
  - Development of thermal vacuum testing, component screening and environmental testing facilities.
  - Developing a strategic roadmap in line with organizational vision 2047.
- **Director Quality Control, (Dec 2014 - May 2016)**
  - Development of final product qualification processes for long range strategic weapons (80-250 Km).
  - Establishment of ICs testing facility.
  - Conducted analysis, feasibility and establishment of hardware Trojans detection lab.
  - Provided consultancy for establishing micro & nano systems fabrication facilities.
  - Conducted life enhancement and qualification of long range weapon systems.
  - Responsible for final product qualification.
- **Adjunct Faculty (Professor) Department of Electrical Engineering, NUST College of Electrical & Mechanical Engineering (Aug 2015 – Aug 2018)**
  - Conducted academic/teaching activities at undergraduate & post graduate level.
  - Supervised PhD, MSc students and undergraduate students for final year projects.
  - Published research papers in Journals/Conferences of international repute.
- **Professor and Head of Department Electrical Engineering, NUST College of Electrical & Mechanical Engineering (Nov 2010 - Nov 2014)**
  - Conducted research in Design and optimization of novel MEMS based micro-gripper, novel star-shaped fractal and CPW Fed super wideband heptagonal fractal antennas, ESPAR antenna for MIMO implementation, direction of arrival estimation, Split-ring and Split-ball resonators for effective permittivity and volume fraction extraction, Software and hardware framework for a complete M2M solution with remote monitoring system and smart energy metering over GPRS using the cloud computing concepts.
  - Leading the department with long term future vision and strategic leadership.
  - AS faculty taught Network Centric Warfare at Command & Staff College
  - Supervising PhD, MSc students.
- **Director Society for Promotion of Arts and Literature, NUST College of Electrical & Mechanical Engineering (Dec 2010- Nov 2014)**
  - Conducting extracurricular activities and resolve student unions/ societies problems/ issues for their effective engagement in academic and extracurricular activities.
  - Established media society as founder of EME media Club.
  - Planned, supervised and executed EME Olympiads for three consecutive years.
- **Assistant Director Engineering, Production (Sep 2005 - Jan 2007)**
  - Ensuring smooth projects execution and completion through Supply Chain Management.
  - Responsible for planning, execution and successful completion of production/overhaul projects.
  - Responsible for production lines and effective utilization of manpower for completion of projects.

- **Head KESC SITE Industrial Zone (Dec 2001 - Aug 2005)**
  - Responsible for power transmission and improvement in system by controlling technical losses.
  - Develop regulatory frameworks as per market dynamics, and emerging trends.
  - Handling of one stop customer relationship office for consumer satisfaction.
  - Responsible for performance improvement both in technical and financial areas.
- **Head KESC Computer Department (Dec 2001 - Aug 2005)**
  - Demonstrated performance enhancement of department using Business Process Re-engineering (BPR).
  - Developed in-house processes for performance monitoring of officers and staff in the department.
- **Project Director KESC Digital Transformation Project (Jan 2002 – Dec 2004)**
  - Leading team of multi-disciplinary specialization to conduct KESC Digitization using change & conflict management skills through digital transformation.
  - Enable development of new billing system product KESC.
  - Implementation of digitized solution at 110 KESC sites with main IT network for live data analysis.
  - **Established KESC IT/Computer training institute** using existing manpower & resources and conducted IT training courses/cycles for employees of KESC.
- **Senior Manager Clean Room Labs, (Aug 1998 - Nov 2001)**
  - Responsible for repair/maintenance of night vision devices being used in army.
  - Developed laminar flow stations for thermal devices.
  - Developed laser collimator for tanks gunner sights.
  - Developed vehicle power convertor module for short range weapon systems on wheels.
- **Manager/ Senior Manager Workshop & Field Engineering, (Mar 1987 – Aug 1998)**
  - Managing & leading a team for effective support of engineering services.
  - Overseeing the operations for maintaining technical assets.
  - Exercise technical expertise and strategic thinking to ensure effective support of field operations.
  - Planning/scheduling and provision of spares for timely/effective repair of equipment.
  - Effectively coordinate with logistics, operations, and engineering to ensure seamless operations.

Program Evaluation/ Subject Expert

1. Approved Pakistan Engineering Council (PEC) program Evaluator/ Subject Expert from Industry.
2. Member Engineering Program Evaluation & Accreditation Committee GIFT University Gujranwala.

Invited Talks

1. "Research & Innovation - Concept, Implementation and Commercialization", at University of Chakwal, Pakistan.
2. "Power of Industry-Academia Collaboration: Bridging the Gap", in Leadership and Management Program for Vice Chancellors, 20 June 2023, Lahore Pakistan.
3. "Strategic Policy Framework – Research Leading to Commercialization", in V Nobel Fest: lecture Series, 01 November 2022, Astana Kazakhstan.
4. "Advancing Academic Research & Innovation in Pakistan", at Pakistan Research Forum 2021 by Clarivate International.
5. "NEMS – Future in Communication Applications", International Symposium on Emerging Technologies in Optical Communications and Semiconductor Devices, 25-26 August 2016, NUST Pakistan.

6. “MEMS/NEMS Fabrication – Techniques, Challenges and Applications”, International Symposium on Frontier of Nano Science and Nano Engineering, 10 September 2015, National Institute for Optical and Laser Research, Islamabad Pakistan.
7. “Miniaturization and its Applications”, International Workshop on Cleanroom Training for Critical and Sustainable Technologies – Sensors, 16-27 June 2014, Bilkent University, Ankara Turkey.

International/ National Projects

1. Project titled, “Algorithm Development & Improved RF Frontend for GNSS Signals Augmentation”.
2. Project titled, “PAK-UK Education Gateway Mobility Partnership Grant for Faculty”.
3. Project title, “Innovative approaches in Post-harvest Technologies”, with METU Ankara Turkiye.
4. Project title, “Technical Infrastructure Development Facility”.
5. Project title, “Development of Remote Sensing Satellite”.
6. Project title, “Development of Technology Evaluation Remote Sensing Satellite”.
7. Project title, “Transmitarray unit cell characterization using insertion loss and phase range analysis for bandwidth and gain enhancement in 5G application,” with University Technology Malaysia (UTM).
8. Project Title, “KESC Digitization Project”, at Karachi Electric Supply Corporation (KESC), Pakistan.
9. Project title, “NUST Faculty Performance Analysis Dashboard”, at National University of Sciences and Technology (NUST), Pakistan.
10. Project title, “NUST Faculty Research Dashboard for Academia-Industry Collaboration”, at National University of Sciences and Technology (NUST).
11. Project title, “Devising NUST Web Metrics Using Scopus Database”, at NUST.
12. Project title, “Management Audit of 500 Bed Hospital to Access Patient dissatisfaction”, at Rawalpindi, Pakistan.
13. Project title, “Management Audit of a large-scale Engineering Workshop to access Employees Work Environment Satisfaction”, at Rawalpindi, Pakistan.

Honors and Awards

1. **Sitar-e-Imtiaz**
2. **COAS Commendation Card**
3. **Best Research Paper Award** in IEEE Mediterranean Microwave Symposium (MMS-2009), Morocco
4. **Certificate of Merit** on Planning, Development and Implementation of Digitization Project of Karachi Electric Supply Corporation (KESC)
5. **Distinguished Service Award** (2018) in recognition to successful project completion.
6. **Distinguished Service Award** (2018) in recognition to successful Indigenous Development of product.
7. Approved Pakistan Engineering Council (PEC) program Evaluator/ Subject Expert from Industry**.**
8. HEC Approved Supervisor.

Professional Associations/Bodies

1. Member Pakistan Engineering Council (PEC)
2. Fellow Institute of Engineers (FIE), Pakistan
3. Member Institute of Electrical and Electronics Engineering (IEEE), Pakistan
4. Member Institute of Electrical and Electronics Engineering (IEEE), USA
5. Member IEEE Microwave Theory and Techniques Society (MTT-S), USA

List of Publications

Book Chapter

1. Hamood Ur Rahman, "Plasma Based Dry Release of MEMS Devices," book chapter in book titled, "Microelectromechanical Systems and Devices," Dr Nazmul Islam (Ed.), ISBN: 978-953-51-0306-6, InTech Publishers, Available from: http://www.intechopen.com/ books/ microelectromechanical-systems-and-devices/plasma-based-dry-release-of-mems-devices, pp. 269-290, 2012 doi: 10.5772/28420.

Journal Publications

2. Adeel Arshad, Muhammad Mubasher Saleem, Mohsin Islam Tiwana, Hamood ur Rahman, Sohail Iqbal, Rebecca Cheung, "A high sensitivity and multi-axis fringing electric field based capacitive tactile force sensor for robot assisted surgery," Journal of Sensors and Actuators: A. Physical, (Online ISSN: 0924-4247), 354 (2023) 114272, February 2023, doi: doi.org/10.1016/j.sna.2023.114272.
3. Assad Iqbal, Jamal Nasir, Muhammad Bilal Qureshi, Aftab Ahmad Khan, Jalil Ur Rehman, Owais, Hamood Ur Rahman, Muhammad A. B. Fayyaz and Raheel Nawaz, "A CPW Fed quad-port MIMO DRA for sub-6 GHz 5G Applications," Journal of PLoS ONE (Online ISSN: 1932-6203), PLoS ONE 17(6):e0268867, pp. 1-15, June 2022, doi: 10.1371/journal.pone.0268867.
4. Mubashir Hussain, Xiaolong Liu, Jun Zou, Jian Yang, Zeeshan Ali, Hamood Ur Rehman, Nongyue He, Jianguo Dai and Yongjun Tang, "On-chip Classification of Micro-particles Using Laser Light Scattering and Machine Learning," Chinese Chemical Letters (ISSN: 1001-8417), Vol 33, Issue 4, pp. 1885-1888, April 2022, doi:10.1016/j.cclet.2021.09.044.
5. Abdullah Madni, Muhammad Rizwan Akram, Kashif Riaz, Hamood Ur Rahman, Mutee Ur Rehman, Wasif Tanveer Khan & Muhammad Qasim Mehmood, "A compact high isolation wideband MIMO antenna for multi-band applications", Journal of Electromagnetic Waves and Applications (Online ISSN: 1569-3937), pp. 1-14, March 2022, doi: 10.1080/09205071.2022.2054730.
6. Muhammad Naeem Iqbal, Mohd Fairus Mohd Yusoff, Mohammad Kamal A Rahim, Mohamad Rijal Hamid, Zaharah Johari and Hamood Ur Rahman, "A high Gain and Compact Transmitarray Antenna for Ku Band Satellite Communications," Journal of Electromagnetics (ISSN: 0272-6343), Vol 41, No. 5, pp. 331-343, September 2021, doi: 10.1080/02726343.2021.
7. Muhammad Naeem Iqbal, Mohd Fairus Mohd Yusoff, Mohammad Kamal A Rahim, Mohamad Rijal Hamid, Zaharah Johari and Hamood Ur Rahman, "Circularly Polarized Transmitarray Antenna Design Using Meander Line Polarized for Ku-Band Applications", in IEEE Access (ISSN: 2169-3536), Vol 9, pp. 119598-119612, September 2021, doi: 10.1109/ACCESS.2021.3107531.
8. Tahir Ejaz, Abdul Sami, Muhammad A. Mughal, Hamood Ur Rahman, "Volume Fraction Extraction for Binary Mixture of Ethanol and Methanol Using Optimized Microwave Microfluidic Sensor," Progress in Electromagnetics Research M (ISSN: 1937-8726) Vol. 87, pp. 43-52, Dec 2019.

9. Touseef Hayat, Tahir Ejaz, Muhammad Naveed, Tahir Zaidi, Hamood Ur Rahman, “Permittivity Sensing and Measurement with Novel Split Ball Resonator using E-field Perturbation Technique,” Microwave and Optical Technology Letters 2018 (ISSN: 1098-2760), Vol. 60, pp. 748-754, January 2018, doi: 10.1002/mop. 31037.
10. Muhammad Naeem Iqbal, Hamood Ur-Rahman, T Tauqeer and Rodica Ramer, “Wideband Monopole Fractal Heptagonal Antenna Implementation in X-Band Frequency Range,” International Journal of Frequenz, (ISSN (Online) 2191-6349, ISSN (Print) 0016-1136), April 2017, doi**:** 10.1515/freq-2016-0232.
11. T. Tauqeer, Muhammad Yasin, Sait E. San, Hamood Ur Rahman and Kh. S. Karimov, “Fabrication and Characterization of P3HT:MR:PCBM Blend Based Organic Phototransistor,” Journal of Nanoelectronics and Optoelectronics (ISSN: 1555-130X), May 2016.
12. Tahir Ejaz, Hamood Ur Rahman, Adnan Masood, Tahir Zaidi, Muhammad Naveed, “Modeling of Compositional Analysis for Liquid Solvents in Microfluidic Channel Using Split Ball Resonator,” The International Journal of E-Learning and Educational Technologies in the Digital Media (IJEETDM) (ISSN:2410-0439), Vol. 2, No. 2, pp. 73-79, April 2016.
13. Tahir Ejaz, Hamood Ur Rahman, T. Tauqeer, Adnan Masood, and Tahir Zaidi, “Shield Optimization and Formulation of Regression Equations for Split-Ring Resonator,” Journal of Mathematical Problems in Engineering (ISSN:1563-5147), Vol. 2016, pp.1-10, January 2016, doi:10.1155/2016/4754192.
14. Tahir Ejaz, Hamood Ur Rahman, Tahir Zaidi, T. Tauqeer, and Syed Afaq Ali Shah, “Analysis, Simulation and Experimental Verification of Split-Ring Resonator,” Microwave and Optical Technology Letters (ISSN: 1098-2760), Vol. 57, No. 10, pp. 2358-2363, October 2015, doi: 10.1002/mop. 29344.
15. Hamood Ur Rahman and Rodica Ramer, “Experimental Considerations and Fabrication Analysis of Surface Micromachined RF NEMS Switch,” Journal of Microsystem Technologies (ISSN 0946-7076), Vol 21, Issue 3 (2015), pp. 599-609, March 2015, doi: 10.1007/s00542-014-2147-2.
16. Muhammad Yasin, Tauseef Tauqeer, Hamood Ur Rahman, Khasan S Karimov, Sait E San, Ali Veysel Tunc, “Polymer-Fullerene Bulk Heterojunction Based Strain Sensitive Flexible Organic Field- Effect Transistor,” Arabian Journal for Science and Engineering, (ISSN 1319-8025 (print version) 2191-4281 (electronic version)), Vol. 40 Issue 1, pp. 257-262, January 2015, doi: 10.1007/s13369-014-1508-6.
17. Muhammad Naeem Iqbal, Hamood Ur Rahman and Syeda Fiza Jilani, “An Ultra Wideband Monopole Fractal Antenna with Coplanar Waveguide Feed,” International Journal of Antennas and Propagation, (ISSN 1687-5869), Vol. 2014, pp. 7pages, March 2014, doi: 10.1155/2014/510913.
18. Ahmed Kausar, Hamood ur Rahman, Shafaq Kausar and Tayyab Hassan, “Interference Cancellation Using Adaptive Beam Forming for 3 D Beam Steering,” International Journal of Simulation Systems, Science & Technology (ISSN: 1473-804x 33 online, 1473-8031 print), Vol 14, No 1, pp. 33-36, February 2013.
19. Hamood Ur Rahman, B. C. Jhonson, J. C. Mccallum, E. gauja and R. Ramer, “Fabrication and characterization of PECVD silicon nitride for RF MEMS applications,” Journal of Microsystem Technologies (ISSN 0946-7076), Vol. 19, No. 1, pp. 131-136, January 2013, doi: 10.1007/s00542-012-1522-0.

20. Yi Xiu Yang, Hamood Ur Rahman and Rodica Ramer, “A Novel Silicon-based Wideband RF Nano Switch Matrix Cell and the Fabrication of RF Nano Switch Structures,” Journal of Sensors & Transducers (ISSN 1726-5479), Vol. 13(12/11), Special Issue, pp.98-108, December 2011.
21. Hamood Ur Rahman, King Yuk Chan and Rodica Ramer, “Cantilever Beam Designs for RF MEMS Switches,” Journal of Micromech. Microeng., Vol. 20, No. 7 (075042), 12pp, July 2010, doi: 10.1088/0960-1317/20/7/075042.

Conference Publications

22. Muhammad Naeem Iqbal, Mohd Fairus Mohd Yusoff, Mohamad Kamal A. Rahim, Mohamad Rijal Hamid, Zaharah Johari and Khawaja Hamood Ur Rahman, “New Reconfigurable Transmitarray Unit Cell Design at Ku-Band Using PIN Diodes,” Proc of IEEE 5th International Conference on Electrical, Electronic, Communication and Control Engineering (ICEECC -2021), Johor Bahru, Malaysia on 15-16 December 2021.
23. Mubashir Hussain, JingZhou Zhao, Ali Hassan, Hamood Ur Rahman, Amer S. Kashif and Yongjun Tang, “Application of Separate Modal Analysis and Scale Varient Feature Transform on Clincal Data For Screening of Breast Cancer,” Proc of IEEE Intl Conference on Information Communication and Software Engineering (ICICSE-2021), pp. 36-40, Chengdu China.
24. Shafaq Kausar, Ahmed Kausar, Hani Mehrpouyan and Hamood Ur Rahman, “Design of Miniaturized ESPAR Antenna for Next Generation Communication Systems,” Proc of IEEE Intl Symposium on Antenna and Propagation and USNC-URSI Radio Science Meeting, 2019, pp. 1359-1360, 7 July 2019.
25. Misbah Younis, Tahir Ejaz, Tahir Zaidi and Hamood Ur Rahman, “Modified Split Ring Resonator with Enhanced Permittivity Sensitivity,” Proc of IEEE Intl Electrical Engineering Congress (iEECON 2019), pp. 26-30, Hua Hin Thiland, 6-8 March 2019.
26. Ismatullah and Hamood Ur Rahman, “Design and Analysis of Low Profile Hemi, spherical Coverage TMTC Antenna of CubeSat,” Proc of ISNET/RJGC Workshop on Cubesat Technologies: Its Design and Development, Amman Jordan, 15-19 Oct 2017.
27. Touseef Hayat, Tahir Ejaz, Muhammad Naveed, Tahir Zaidi and Hamood Ur Rahman, “Simulation Based Comparative Analysis of Split Resonators for Compositional Analysis,” Proc of 4th International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAEECE-2016), pp. 29-35, Malaysia, September 2016.
28. Tahir Ejaz, Hamood Ur Rahman, Adnan Masood, Tahir Zaidi, Muhammad Naveed, “Modeling of Compositional Analysis for Liquid Solvents in Microfluidic Channel Using Split Ball Resonator,” Proc of 3rd IEEE International Conference on Electrical, Electronics, Computer Engineering and their Applications (EECEA2016), pp. 57-62, Beirut Lebanon, 21-23 April 2016.
29. Rabia Jamshaid, Imran Aziz, Imran Akhtar, Tahir Zaidi and Hamood Ur Rahman, “Glass Based Polymerase Chain Reaction Device for DNA Amplification,” Proc of 12th IEEE International Conference on High-capacity Optical Networks and Enabling/Emerging Technologies (HONET-2015), pp. 1-5, Islamabad Pakistan, 21-23 December 2015.

30. Nabeel Khalid, Hamood Ur Rahman, Tausef Tauqeer and Habib Ahmed, “Performance Optimization of a Monolithic CdZnO Active Layer Based Double Well LED,” Proc of 12th IEEE International Conference on High-capacity Optical Networks and Enabling/Emerging Technologies (HONET-2015), pp. 1-4, Islamabad Pakistan, 21-23 December 2015.
31. Shafaq Kausar, Hamood Ur Rahman, Ahmed Kausar and Tayyab Hassan, “Miniaturization of ESPAR Antenna using Folded Monopoles and Conical Central Element,” Proc of IEEE International Conference on Radar, Antenna, Microwave, Electronics and Telecommunications (ICRAMET 2015), Bandung Indonesia, 5-7 October 2015.
32. Mubashir. Hussain, Hamood Ur Rehman, Omar Nazir, Amir Kashif, Ali Hassan and M. A. Dildar, “Separate Modal Analysis using Scale Invariant Feature Transform (SIFT) with Digital Image Elasto Tomography (DIET) for Breast Cancer Screening Test,” Proc of IEEE International Conference on Informative and Cybernetics for Computational Social Systems (ICCSS-2015), pp. 126-129, Chengdu China, 13-15 August 2015.
33. Tahir Ejaz, Hamood Ur Rahman, Afaq Ali Shah and Tahir Zaidi, “A Comparative Analysis of Split-Ring Resonator Models”, Proceedings of 4th International Conference on Informatics, Electronics & Vision (ICIEV), pp. 61, Fukuoka, Japan, 15-18 June, 2015.
34. Tahir Ejaz, Syed Afaq Ali Shah, Hamood Ur Rahman, Tahir Zaidi, “Improved Shield Design for Split-Ring Resonator,” Proc of 3rd IEEE International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAEECE 2015), pp. 207-211, Beirut Lebanon, 29 April - 1st May 2015.
35. Muhammad Yasin, T. Tauqeer, Sait E. San, Hamood Ur Rahman, Kh. S. Karimov , “Fabrication and Characterization of Organic Bulk Heterojunction based Displacement and Bend Sensitive Field Effect Transistors,” Proc. of 12th IEEE International Bhurban Conference on Applied Sciences and Technology (IBCAST), pp. 1-5, Islamabad Pakistan, 13-17January, 2015.
36. M.Qamar Ul Hassan, F.A. Tahir, Hamood Ur Rahman, “ A Novel Design of RF MEMS Shunt Switch with Dimples and Meanders,” Proc of IEEE International Conference on Emerging Technologies (ICET), pp. 122-124, Islamabad Pakistan, 8-9 December 2014.
37. Ahmed Kausar, Hamood ur Rahman, Shafaq Kausar, Tayyab Hassan, “Smart Adaptive Beam Forming Antenna for Interference Minimization,” Proc. of IEEE Conference on Future Generation Communication Technologies (FGCT-2013), pp. 6-9, London, UK, 12-14 December 2013.
38. Talha M. Khan, Hamood Ur Rahman, Shafaat A. Bazaz, “Design of Novel Three-Pronged Microgripper for the Diagnosis of Dysplasia,” Proc. of IEEE Conference on Control, Systems & Industrial Informatics (ROBIONETICS 2013), pp. 5-9, Yogjakarta, Indonesia, 25-27 November, 2013.
39. Shafaq Kausar, Hamood ur Rahman, Ahmed Kausar, Tayyab Hassan, “ESPAR Antenna System for Dynamic Tracking of Active Targets,” Proc. of IEEE European Modeling Symposium (EMS-2013), pp. 533-535, Manchester, UK, 20-22 November 2013.

40. Syeda Fiza Jilani, Hamood Ur Rahman and Muhammad Naeem Iqbal, "Novel Star-shaped Fractal Design of Rectangular Patch Antenna for Improved Gain and Bandwidth," Proc. of IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, pp. 1486-1487, Orlando, Florida, USA, 7-12 July, 2013.
41. Muhammad Naeem Iqbal, Hamood Ur Rahman and Syeda Fiza Jilani, "Novel Compact Wide Band Coplanar Waveguide Fed Heptagonal Fractal Monopole Antenna for Wireless Applications", Proc. Of 14th Annual IEEE Wireless and Microwave Technology Conference (WAMICON-2013), pp. 1-3, Orlando Florida, USA, 7-9 April 2013.
42. Hamood Ur Rahman, and Rodica Ramer, "Mitigation of Proximity Effect during Fabrication of Surface Micromachined RF NEMS Switch," Proc. of 12th IEEE Mediterranean Microwave Symposium (MMS-2012), pp. 1-5, Istanbul Turkey, 2-5th September 2012.
43. Yi Xiu Yang, Hamood Ur Rahman, Rodica Ramer, "Nano Fabrication Analysis of RF NEMS Switch," Proc. of 4th IEEE Intl. Conf. on Nanoelectronics (INEC) 2011, pp. 1-2, Tao-Yuan Taiwan, 21-24th June 2011.
44. Hamood Ur Rahman, King Yuk Chan and Rodica Ramer, "Fabrication of RF NEMS Series Switch using Surface Micromachining," Proc. of 2nd IASTED Intl. Conf. on Nanotechnology and Applications (*NANA 2010)*, pp. 533-539, Cambridge, USA, 1-3rd November 2010.
45. Hamood Ur Rahman and Rodica Ramer, "Experimental Considerations for Fabrication of RF MEMS Switches," Proc. of 2nd Asia Symposium on Quality Electronic Design (ASQED 2010), pp. 49-55, Penang Malaysia, 2-4th August 2010.
46. B. C. Johnson, Hamood Ur Rahman, Eric Gauja, Rodica Ramer and J. C. McCallum, "Deep Level Transient Spectroscopy Study of Defects at Si/SiO_2 and Si/SiN_x Interfaces," Proc. of IEEE Intl. Conf. on Nanoscience and Nanotechnology (ICONN-2010), pp. 333-336, Sydney Australia, 22-26th February 2010.
47. Hamood Ur Rahman and Rodica Ramer, "Three Bar Novel RF MEMS Switches," Proc. of IEEE Asia Pacific Microwave Conference (APMC-2009), pp. 453-456, Singapore, 7-10th December 2009.
48. Hamood Ur Rahman, King Yuk (Eric) Chan and Rodica Ramer, "Investigation of Residual Stress Effects and Modelling of Spring Constant for RF MEMS Switches," Proc. of 9th IEEE Mediterranean Microwave Symposium (MMS-2009), pp. 01-04, Tangiers Morocco, 15-17th November 2009, (**Best Paper Award**).
49. Hamood Ur Rahman and Rodica Ramer, "Dry Release of MEMS Structures using Reactive Ion Etching Technique," Proc. of 3rd IEEE Intl. Symposium on Microwave, Antenna, Propagation and EM Technologies for Wireless Communications (IEEE MAPE-2009), pp. 517-520, Beijing China, 27-29th October 2009.
50. Hamood Ur Rahman and Rodica Ramer, "Supported Bars Novel Cantilever Beam Design for RF MEMS Series Switches," Proc. of 9th IEEE Intl. Conference on NANO Technologies (IEEE NANO-2009), pp. 255-258, Genoa Italy, 26-30th July 2009.
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