

Hamood Ur Rahman

Director Research

University Main Office (UMO)

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About

Dr. Hamood Ur Rahman is working as Director Research in the University Main Office (UMO). Dr. Hamood Ur Rahman has a PhD in Electrical. Dr. Hamood Ur Rahman has published 55 research articles & conference papers having a citation count of 260, carried out 2 projects and filed 0 intellectual property.

Qualifications

PhD in Electrical University of New South Wales , Australia	2007 - 2010
MBA in Hrm Karachi Institute Of Economics And Technology , Pakistan	2002 - 2004
MSc in Electrical NUST, Islamabad , Pakistan	1993 - 1995
BSc in Electrical UET Lahore , Pakistan	1989 - 1991

Experience

Director Research University Main Office (UMO)	2023- Present
Director Research University Main Office (UMO)	2021 - 2023
Adjunct Faculty College of Electrical & Mechanical Engineering	2018 - 2018
Adjunct Faculty College of Electrical & Mechanical Engineering	2015 - 2018
Dy Dir Gen SUPARCO , Lahore	- Present
GSO-II CLS CLS Sectt , GHQ	- Present
Director PMO , Texila	- Present
Prof /HOD NUST College of EME , Rawalpindi	- Present
OIC Labs /grg 505 EB Wksp , Rawalpindi	- Present
ADEME (Production) 501 Cent Wksp , Chaklala	- Present
OIC Computer Dept/ SITE Industrial Area KESC , Karachi	- Present

Research Projects

National Projects

Transmitarray unit cell characterization using insertion loss and phase range analysis for bandwidth and gain enhancement in 5G application 2020

Funding Agency: MyGrants Malaysia

Amount: PKR 3,705,543.00

Status: Completed

Devising Web of Science Metrics Using Scopus Database 2022

Funding Agency: NUST

Amount: PKR 1,000,000.00

Status: Completed

International Projects

Research Articles

A high sensitivity and multi-axis fringing electric field based capacitive tactile force sensor for robot assisted surgery 2023

Adeel Irshad Dr. Muhammad Mubashir Saleem Dr. Mohsin Islam Tiwana Hamood Ur Rahman Sohail Iqbal Rebecca Cheung

Sensors and Actuators A: Physical, Volume 354, Article Number: 114272

Impact Factor: 4.291 | **Quartile:** 1 | **Citations:** 23

DOI: 10.1016/j.sna.2023.114272

A CPW fed quad-port MIMO DRA for sub-6 GHz 5G applications 2022

Assad Iqbal Jamal Nasir Muhammad Bilal Qureshi Aftab Ahmad Khan Jalil Ur Rehman Owais Hamood Ur Rahman Muhammad A. B. Fayyaz Raheel Nawaz

PLOS ONE, Volume 17(6), Article Number e0268867

Impact Factor: 3.752 | **Quartile:** 2 | **Citations:** 9

DOI: 10.1371/journal.pone.0268867

On-chip classification of micro-particles using laser light scattering and machine learning 2022

Mubashir Hussain XiaolongLiu Jun Zou Zeeshan Ali JianYang Hamood Ur Rahman Nongyue He Jianguo Dai Yongjun Tang

Chinese Chemical Letters, Volume 33, Issue 4, Pages 1885-1888

Impact Factor: 8.455 | **Quartile:** 1 | **Citations:** 28

DOI: <https://doi.org/10.1016/j.ccllet.2021.09.044>

A compact high isolation wideband MIMO antenna for multi-band applications 2022

Abdullah Madni Kashif Riaz Muhammad Rizwan Akram Hamood Ur Rahman Mutee Ur Rehman Wasif Tanveer Khan Muhammad Qasim Mehmood

Journal of Electromagnetic Waves and Applications, Pages 1-14

Impact Factor: 1.438 | **Quartile:** 4 | **Citations:** 9

DOI: 10.1080/09205071.2022.2054730

Low-cost and small size millimeter wave (24 ghz) extended hemispherical lens antenna for automotive and industrial applications using fr408hr substrate 2021

Waleed Ahmad Furkan Dayi Hamood Ur Rahman Wasif Tanveer Khan

Progress in Electromagnetics Research Letters, Volume:100, Page:73-80

Impact Factor: N/A | **Citations:** 3

DOI: 10.2528/PIERL21080202

A high gain and compact transmitarray antenna for Ku-band satellite communications 2021

Muhammad Naeem Iqbal Mohd Fairus Mohd Yusoff Mohammad Kamal A. Rahim Mohamad Rijal Hamid Zaharah Johari Hamood Ur Rahman

Electromagnetics, Volume 41, Issue 5, Pages 331-343

Impact Factor: 1.042 | **Quartile:** 4 | **Citations:** 1

DOI: <https://doi.org/10.1080/02726343.2021.1962603>

Circularly Polarized Transmitarray Antenna Design Using Meander Line Polarizer for Ku-Band Applications 2021

Muhammad Naeem Iqbal Mohd Fairus Mohd Yusoff Mohammad Kamal A. Rahim Mohamad Rijal Bin Hamid Zaharah Johari Hamood Ur Rahman

IEEE Access, Volume 9, Pages 119598-119612

Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 6

DOI: 10.1109/ACCESS.2021.3107531

Volume fraction extraction for binary mixture of ethanol and methanol using optimized microwave microfluidic sensor 2019

<i>Tahir Ejaz Muhammad Ali Mughal Hamood Ur Rahman Abdul Sami</i> <i>Progress In Electromagnetics Research M</i>, Volume 87, Pages 43-52 Impact Factor: N/A Citations: 3 DOI: 10.2528/PIERM19090804	
Permittivity sensing and measurement with novel split ball resonator using E-field perturbation technique <i>Touseef Hayat Tahir Ejaz Muhammad Naveed Syed Muhammad Tahir Zaidi Hamood Ur Rahman</i> <i>Microwave and Optical Technology Letters</i>, Volume 60, Issue 3, Pages 748-754 Impact Factor: 0.933 Quartile: 4 Citations: 3 DOI: https://doi.org/10.1002/mop.31037	2018
Wideband Monopole Fractal Heptagonal Antenna Implementation in X-Band Frequency Range <i>Muhammad Naeem Iqbal Hamood Ur Rahman T. Tauqeer Rodica Ramer</i> <i>Frequenz</i>, Volume 71, Issue 11-12, Pages 539-547 Impact Factor: 0.280 Quartile: 4 DOI: https://doi.org/10.1515/freq-2016-0232	2017
Fabrication and Characterization of P3HT:MR:PCBM Blend Based Organic Phototransistor <i>T. Tauqeer Muhammad Yasin Sait E. San Hamood Ur Rahman Kh. S. Karimov</i> <i>Journal of Nanoelectronics and Optoelectronics</i>, Volume 12, Issue 1, Pages 22-27 Impact Factor: 1.069 Quartile: 4 Citations: 2 DOI: DOI:10.1166/jno.2017.1969	2017
Modeling of Compositional Analysis for Liquid Solvents in Microfluidic Channel Using Split Ball Resonator <i>Tahir Ejaz Hamood Ur Rahman Adnan Masood Tahir Zaidi Muhammad Naveed</i> <i>International Journal of E-Learning and Educational Technologies in the Digital Media (IJEETDM)</i>, Volume 2. Issue no 2, Pages 73-79 Impact Factor: - DOI: N/A	2016
Shield Optimization and Formulation of Regression Equations for Split-Ring Resonator <i>Tahir Ejaz Hamood Ur Rahman Tauseef Tauqeer Adnan Masood Tahir Zaidi</i> <i>Mathematical Problems in Engineering</i>, Volume 2016, Article ID 4754192, 10 pages Impact Factor: 0.802 Quartile: 3 Citations: 4 DOI: http://dx.doi.org/10.1155/2016/4754192	2016
Analysis, simulation, and experimental verification of split-ring resonator <i>Touseef Hayat Tahir Ejaz Muhammad Naveed Tahir Zaid Hamood Ur Rahman</i> <i>Microwave and Optical Technology Letters</i>, Volume 57, Issue 10, Pages 2358-2363 Impact Factor: 0.545 Quartile: 4 Citations: 4 DOI: 10.1002/mop.31037	2015
Experimental considerations and fabrication analysis of surface micromachined RF NEMS switch <i>Hamood Ur Rahman Rodica Ramer</i> <i>Microsystem Technologies</i>, Volume 21, Issue 3, Pages 599-609 Impact Factor: 0.974 Quartile: 3 Citations: 1 DOI: DOI:10.1007/s00542-014-2147-2	2015
Polymer-Fullerene Bulk Heterojunction-Based Strain-Sensitive Flexible Organic Field-Effect Transistor <i>Muhammad Yasin Tauseef Tauqeer Kh. S. Karimov Sait E. San Ali V. Tunc Hamood Ur Rahman</i> <i>Arabian Journal for Science and Engineering</i>, Volume 40, Issue 1, Pages 257-262 Impact Factor: 0.728 Quartile: 3 Citations: 12 DOI: DOI:10.1007/s13369-014-1508-6	2015
An Ultrawideband Monopole Fractal Antenna with Coplanar Waveguide Feed <i>Muhammad Naeem Iqbal Hamood Ur Rahman Syeda Fizzah Jilani</i> <i>International Journal of Antennas and Propagation</i>, Volume 2014, Article ID 510913, 7 pages Impact Factor: 0.660 Quartile: 3 Citations: 10 DOI: 10.1155/2014/510913	2014
Interference cancellation using adaptive beam forming for 3 D beam steering <i>Hamood Ur Rahman Ahmed Kausar Tayyab Hassan Shafaq Kausar</i> <i>International Journal of Simulation: Systems, Science and Technology</i>, Volume 14, Issue 1, Pages 33-36 Impact Factor: 0	2013

Fabrication and characterization of PECVD silicon nitride for RF MEMS applications 2013

Hamood Ur Rahman B.C. Johnson J. C. Mccallum E. Gauja R. Ramer

Microsystem Technologies, Volume 19, Issue 1, Pages 131-136

Impact Factor: 0.952 | **Quartile:** 3 | **Citations:** 6

DOI: 10.1007/s00542-012-1522-0

Novel Silicon-based Wideband RF Nano Switch Matrix Cell and the Fabrication of RF Nano Switch Structures

Yi Xiu Yang Hamood Ur Rahman Rodica Ramer

Sensors and Transducers, Volume 13, Special Issue 12/11, Pages 98-108

Impact Factor: 0

DOI: [https://media.proquest.com/media/pq/classic/doc/2569073341/fmt/pi/rep/NONE?](https://media.proquest.com/media/pq/classic/doc/2569073341/fmt/pi/rep/NONE?_a=ChgyMDIyMTIwNjA3NTIzNjUyMT05MTY5OTkSBzEwMjA2MzMaCk9ORV9TRUFSQ0gDjExMS42OC4xMDEuMjM2KgU1MjkzODIOTE3NTQ4MzI1OHBPcGVudmldl0NpdGF0aW9uQgEwUgZPBmxbpmbVaAkZUYgNQIRqCjIwMTEvMTIvMDFyCjIwMTEvMTIvMzF6A1IBIFAtMTAwNjk4NC0xMzUwMzQtU1RBRkYtbmVsbC1udWxskgEGT25saW5lYgFvTW96aWxsYS81LjAgKFdpbmRvd3MgTlQgMTAuMDsgV2luNjQ7IHg2NCkgQXBwbGVXZXJLaXQvNTM3LjMjIChLSFRNTCwgbGlrZSB8HWNrbykgQ2hyb21lZwNwY4LjAuMCAyYzZhcmlkbnQ3LjM0QGU2Nob2xhcmlkbnQ5IEdpdXJuYWYwZmglHUHJIUGFpZK0CjK9TOKVNyY1VkbFk1dGhEb2NWaWV3LWdlldFBYzXZpZXdQZGZMaW5ryglPQXJ0aWNsZXxGZWJ0dXJl0gIBWFIICAPoCAVmAaWwNXZWKKAxxDSUQ6MjAyMjE5MDYwNzUyMzY1MzE6NzE1MDMx&_s=3FwDITGtsMPdIJCwQELYK8FU%2BV8%3D)

Cantilever beam designs for RF MEMS switches 2010
Hamood Ur Rahman King Yuj Chan Rodica Ramer
Journal of Micromechanics and Microengineering, Volume 20, Issue 7, Article Number 075042
Impact Factor: 2.281 | **Quartile:** 1 | **Citations:** 28
DOI: 10.1088/0960-1317/20/7/075042

Application of Separate Modal Analysis and Scale-Invariant Feature Transform on Clinical Data for the Screening of Breast Cancer

Amer Sohail Kashif Mubashir Hussain Jingzhou Zhao Ali Hassan Hamood Ud Rahman Yongjun Tang

2021 IEEE International Conference on Information Communication and Software Engineering (ICICSE), res.country(48,)

Citations: N/A

DOI: 10.1109/ICICSE52190.2021.9404094

Design of miniaturized ESPAR antenna for next generation communication systems 2019

Shafaq Kausar Ahmed Kausar Hani Mehrpouyan Hamood Ur Rahman

2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, APSURSI 2019 - Proceedings,
res.country(233,)

Citations: 1

DOI: 10.1109/APUSNCURSINRSM.2019.8888822

Modified Split Ring Resonator with Enhanced Permittivity Sensitivity 2019

Misbah Younis Tahir Ejaz Hamood Ur Rahman Tahir Zaidi
International Electrical Engineering Congress , res.country(217,)

Citations: N/A

DOI: Nil

Simulation Based Comparative Analysis of Split Resonators for Compositional Analysis 2016
Touseef Hayat Tahir Ejaz Muhammad Naveed Tahir Zaidi Hamood Ur Rahman
Fourth International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAECEE2016), res.country(157,)
Citations: N/A
DOI: Nil

Modeling of Compositional Analysis for Liquid Solvents in Microfluidic Channel Using Split Ball Resonator

Tahir Ejaz Hamood Ur Rahman Adnan Masood Syed Muhammad Tahir Zaidi Muhammad Naveed

The Third International Conference on Electrical, Electronics, Computer Engineering and their Applications (EECEA2016), res.country(126,)

Citations: N/A

DOI: <http://dx.doi.org/10.17781/P002051>

Performance optimization of a monolithic CdZnO active layer based double quantum well LED

Nabeel Khalid Hamood Ur Rahman Tauseef Tauqeer Habib Ahmed

2015 12th International Conference on High-capacity Optical Networks and Enabling/Emerging Technologies (HONET), res.country(177,)

Citations: N/A DOI: 10.1109/HONET.2015.7395424	
Glass based polymerase chain reaction device for DNA amplification <i>Rabia Jamshaid Imran Aziz Imran Akhtar Tahir Zaidi Hamood Ur Rahman</i> 2015 12th International Conference on High-capacity Optical Networks and Enabling/Emerging Technologies (HONET), res.country(177,) Citations: N/A DOI: 10.1109/HONET.2015.7395416	2015
Miniaturization of ESPAR antenna using folded monopoles and conical central element <i>Shafaq Kausar Hamood Ur Rahman Tayyab Hassan Ahmed Kausar</i> 2015 International Conference on Radar, Antenna, Microwave, Electronics and Telecommunications, res.country(100,) Citations: 6 DOI: 10.1109/ICRAMET.2015.7380780	2015
Separate Modal Analysis using Scale Invariant Feature Transform (SIFT) with Digital Image Elasto Tomography (DIET) for breast cancer screening test <i>Amer Sohail Kashif Mubashir Hussain Hamood Ur Rehman Owais Nazir Ali Hassan Muhammad Awais Dildar</i> 2015 International Conference on Informative and Cybernetics for Computational Social Systems (ICCSS), res.country(48,) Citations: N/A DOI: 10.1109/ICCSS.2015.7281162	2015
Improved Shield Design for Split-Ring Resonator <i>Tahir Ejaz Syed Afaq Ali Shah Hamood Ur Rahman Brig. Syed Muhammad Tahir Zaidi</i> 2015 Third International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAECE), res.country(126,) Citations: 3 DOI: 10.1109/TAECE.2015.7113628	2015
Fabrication and characterization of organic bulk heterojunction based displacement and bend sensitive field effect transistors <i>Muhammad Yasin Tauseef Tauqeer Hamood Ur Rahman Kh. S. Karimoy3 Sait E. San</i> 12th International Bhurban Conference on Applied Sciences and Technology (IBCAST) held from 13-17 January 2015 in Islamabad, Pakistan , res.country(177,) Citations: 2 DOI: 10.1109/IBCAST.2015.7058470	2015
A novel design of RF MEMS shunt switch with dimples and meanders <i>M. Qamar ul Hassan F. A. Tahir Hamood Ur Rahman</i> International Conference on Emerging Technologies (ICET) held from 8-9 Dec 2014 in Islamabad, Pakistan, res.country(177,) Citations: 3 DOI: 10.1109/ICET.2014.7021028	2014
ESPAR Antenna System for Dynamic Tracking of Active Targets <i>Shafaq Kausar Hamood Ur Rahman Ahmed Kausar Tayyab Hassan</i> 2013 European Modelling Symposium , res.country(231,) Citations: 7 DOI: 10.1109/EMS.2013.88	2013
Smart Adaptive Beam Forming Antenna for Interference Cancellation <i>Ahmed Kausar Hamood Ur Rahman Shafaq Kausar Tayyab Hassan</i> 2013 IFIP Wireless Days (WD) , res.country(231,) Citations: 9 DOI: 10.1109/WD.2013.6686441	2013
Smart Adaptive Beam Forming Antenna for Interference Minimization <i>Ahmed Kausar Hamood Ur Rahman Shafaq Kausar Tayyab Hassan</i> Second International Conference on Future Generation Communication Technologies (FGCT 2013), res.country(231,) Citations: 9 DOI: 10.1109/FGCT.2013.6767204	2013
Design of Novel Three-Pronged Microgripper for the Diagnosis of Dysplasia <i>Talha Masood Hamood Ur Rahman Shafaat Ahmed Bazaz</i> International Conference on Robotics, Biomimetics, Intelligent Computational Systems held from 25-27 Nov 2013 in Indonesia res.country(100,) Citations: 1 DOI: 10.1109/ROBIONETICS.2013.6743568	2013

Novel Star-shaped Fractal Design of Rectangular Patch Antenna for Improved Gain and Bandwidth <i>Syeda Fizzah Jilani Hamood Ur Rahman Muhammad Naeem Iqbal</i> <i>IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting held from 07-13 Jul 2013 in USA</i> <i>res.country(233,)</i> Citations: 12 DOI: 10.1109/APS.2013.6711402	2013
Novel Compact Wide Band Coplanar Waveguide Fed Heptagonal Fractal Monopole Antenna for Wireless Applications <i>Muhammad Naeem Iqbal Hamood Ur Rahman Syeda Fizzah Jilani</i> <i>14th Annual IEEE Wireless and Microwave Technology Conference held from 07-09 Apr 2013 in USA</i> <i>res.country(233,)</i> Citations: 7 DOI: 10.1109/WAMICON.2013.6572748	2013
Mitigation of Proximity Effect during Fabrication of Surface Micromachined RF NEMS Switch <i>Hamood Ur Rahman Rodica Ramer</i> <i>IEEE 12th Mediterranean Microwave Symposium held from 02-05 Sep 2012 in Turkey</i> <i>res.country(224,)</i> Citations: 1 DOI: 10.1109/APS.2011.5996369	2012
Nano Fabrication Analysis of RF NEMS Switch <i>Yi Xiu Yang Hamood Ur Rahman Rodica Ramer</i> <i>The 4th IEEE International NanoElectronics Conference</i> <i>res.country(227,)</i> Citations: N/A DOI: 10.1109/INEC.2011.5991701	2011
Fabrication of RF NEMS Series Switch using Surface Micromachining <i>Hamood Ur Rahman King Yuk Chan UNSW Sydney Yi Yang Rodica Ramer</i> <i>IASTED International Conference on Nanotechnology and Applications, NANA 2010</i> <i>res.country(233,)</i> Citations: 6 DOI: 10.2316/P.2010.707-016	2010
Experimental considerations for fabrication of RF MEMS switches <i>Hamood Ur Rahman Rodica Ramer</i> <i>2nd Asia Symposium on Quality Electronic Design (ASQED)</i> <i>res.country(157,)</i> Citations: 4 DOI: 10.1109/ASQED.2010.5548156	2010
Deep Level Transient Spectroscopy Study of Defects at Si/SiO₂ and Si/SiN_x Interfaces <i>Brett Cameron Johnson RMIT University Hamood Ur Rahman Rodica Ramer R. Ramer J. C. McCallum</i> <i>International conference on Nanoscience and Nanotechnology (ICONN-2010)</i> <i>res.country(13,)</i> Citations: 1 DOI: 10.1109/ICONN.2010.6045257	2010
Three-bar novel RF MEMS switches <i>Hamood Ur Rahman Rodica Ramer</i> <i>2009 Asia Pacific Microwave Conference</i> <i>res.country(197,)</i> Citations: N/A DOI: 10.1109/APMC.2009.5384208	2009
Investigation of residual stress effects and modeling of spring constant for RF MEMS switches <i>Hamood Ur Rahman King Yuk Chan Rodica Ramer</i> <i>2009 Mediterranean Microwave Symposium (MMS)</i> <i>res.country(136,)</i> Citations: 8 DOI: 10.1109/MMS.2009.5409828	2009
Dry release of MEMS structures using reactive Ion etching technique <i>Hamood Ur Rahman Rodica Ramer</i> <i>2009 3rd IEEE International Symposium on Microwave, Antenna, Propagation and EMC Technologies for Wireless Communications</i> <i>res.country(48,)</i> Citations: 7 DOI: 10.1109/MAPE.2009.5355671	2009
Supported Bars Novel Cantilever Beam Design for RF MEMS Series Switches <i>Hamood Ur Rahman Rodica Ramer</i> <i>2009 9th IEEE Conference on Nanotechnology (IEEE-NANO)</i> <i>res.country(109,)</i>	2009

Citations: N/A DOI: Nil	
Characterisation of dielectric properties of PECVD Silicon Nitride for RF MEMS applications <i>Hamood Ur Rahman Angus Gentle Eric Gauja Rodica Ramer</i> 2008 IEEE International Multitopic Conference , res.country(177,) Citations: N/A DOI: Nil	2008
Characterization and optimisation of PECVD Silicon Nitride as dielectric layer for RF MEMS using reflectance measurements <i>Hamood Ur Rahman Angus Gentle Eric Gauja Rodica Ramer</i> 2008 8th International Symposium on Antennas, Propagation and EM Theory, res.country(48,) Citations: 4 DOI: 10.1109/ISAPE.2008.4735259	2008
Low actuation voltage RF MEMS series switch with novel beam design <i>Hamood Ur Rahman Tim Hesketh Rodica Ramer</i> 2008 4th International Conference on Emerging Technologies, res.country(177,) Citations: 13 DOI: 10.1109/ICET.2008.4777485	2008
RF MEMS Switches- Design and Performance in Wireless Applications <i>Hamood Ur Rahman Jafar Babaei Rodica Ramer</i> Proceedings of SPIE - The International Society for Optical Engineering 6800, res.country(13,) Citations: 4 DOI: 10.1117/12.769359	2007
Wavelets Based Signal Processing <i>Hamood Ur Rahman Tariq Matin Muhammad Ali Maud</i> IEEE 1st Multi Topic Conference 1995, res.country(177,) Citations: N/A	1995
Frequency Estimation through Time Frequency Analysis, <i>Hamood Ur Rahman Muhammad Ali Maud</i> IASTED international conference on Signal and Image Processing, res.country(233,) Citations: N/A	1995

Book Chapters

Plasma Based Dry Release of MEMS Devices <i>Hamood Ur Rahman</i> In: Book on Microelectromechanical Systems and Devices, Chapter 11, Pages 269-290 Citations: N/A DOI: 10.5772/28420	2012
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Trainings

Defining Research and Innovation Strategy for Excellence Partner: COMSTECH & Islamic University in Uganda (IUIU) Duration: 27-Feb-2023 to 03-Mar-2023	2023
One Day CPD Training on "Research, Innovation and Commercialization" Partner: Punjab Higher Education Commission Duration: 21-Oct-2022 to 21-Oct-2022	2022