### **Syed Muhammad Tahir Zaidi**

#### **Defence Faculty**

College of Electrical & Mechanical Engineering

Email: tahirzaidi@ceme.nust.edu.pk

Contact: 05154444231

LinkedIn: https://pk.linkedin.com/in/tahir-zaidi-55879994



#### **About**

Dr. Syed Muhammad Tahir Zaidi is working as Defence Faculty in the College of Electrical & Mechanical Engineering. Dr. Syed Muhammad Tahir Zaidi has a PhD in Electrical And Computer Engineering. Dr. Syed Muhammad Tahir Zaidi has published 48 research articles & conference papers having a citation count of 185, carried out 2 projects and filed 0 intellectual property.

#### Qualifications

# PhD in Electrical And Computer Engineering 2005 - 2010

## Experience

Experience	
Defence Faculty College of Electrical & Mechanical Engineering	2023- Present
Defence Faculty College of Electrical & Mechanical Engineering	2020 - 2010
Director Defence Research & Development University Main Office (UMO)	2020 - 2020
Director Defence Research & Development University Main Office (UMO)	2020 - 2020
Defence Faculty College of Electrical & Mechanical Engineering	2010 - 2020
Maintenance Officer COAS Flight , Dhamial Base, Rawalpindi	- Present

#### **Professional Memberships**

#### PEC

#### **Research Projects**

## National Projects

Real-time Monitoring, Analysis and Predictive Maintenance of Industrial Machinery based on industry 4.0 concept using IoTs

Funding Agency: IGNITE Amount: PKR N/A Status: Completed

#### Design and Fabrication of ICU grade and Emergency Ventilator

Funding Agency: HEC TTSF Amount: PKR 11,733,960.00

Status: Completed

# International Projects Research Articles

## A Computationally Efficient Distributed Framework for a State Space Adaptive Filter for the Removal of

2023

2021

2021

Impact Factor: 2.592   Quartile: 1   Citations: 2  DOI: https://doi.org/10.3390/math11020350	
Model Predictive Control: Taking the idea of Artificial Pancreas a step forward for Diabetes  Management  Rahmat Ullah Safdar Muwahida Liaquat Syed Muhammad Tahir Zaidi Muhammad Usman Akram  International Journal of Pharma Medicine and Biological Sciences, Volume 10(4), Pages 142-147  Impact Factor: N/A  DOI: 10.18178/ijpmbs.10.4.142-147	2021
Computational Modeling of Inertial Effects on Electromechanics of the Heart  Ovais A. Jaffery S. M. Imran Majeed Tahir Zaidi Imran Akhtar  Journal of Computational and Nonlinear Dynamics, Volume 14(10), Article Number 101006  Impact Factor: 1.661   Quartile: 3   Citations: 1  DOI: 10.1115/1.4043891	2019
Permittivity sensing and measurement with novel split ball resonator using E-field perturbation technique  Touseef Hayat Tahir Ejaz Muhammad Naveed Syed Muhammad Tahir Zaidi Hamood Ur Rahman  Microwave and Optical Technology Letters, Volume 60, Issue 3, Pages 748-754  Impact Factor: 0.933   Quartile: 4   Citations: 3  DOI: https://doi.org/10.1002/mop.31037	2018
Multiphysics design optimization of RF-MEMS switch using response surface methodology  Sadia Younis Muhammad Mubasher Saleem Muhammad Zubair Syed Muhammad Tahir Zaidi  Microelectronics Journal, Volume 71, Pages 47-60  Impact Factor: 1.284   Quartile: 3   Citations: 26  DOI: 10.1016/j.mejo.2017.11.012	2018
99.9% Accurate R Wave Extraction from ECG Signal using Wavelet Transform  Syed Hassaan Ahmed Syed Kashif Abbas Tahir Zaidi  Journal of Biomedical Engineering and Medical Imaging, Volume 4, Issue 3, Pages 14  Impact Factor: 0  DOI: 10.14738/jbemi.43.2898	2017
Fusion of multi-focus images with registration inaccuracies  Attiq Ahmad Sahar Ahmad Hasnat Khurshid M. Mohsin Riaz Abdul Ghafoor Syed Muhammad Tahir Zaidi  Signal, Image and Video Processing, Volume 11, Issue 3, Pages 463-470  Impact Factor: 1.643   Quartile: 3   Citations: 5  DOI: doi:10.1007/s11760-016-0982-6	2017
Noise Resistant Fusion for Multi-Exposure Sensors  Attiq Ahmad Muhammad Mohsin Riaz Abdul Ghafoor Syed Muhammad Tahir Zaidi Muhammad Mohsin Riaz  IEEE Sensors Journal, Volume: 16, Issue: 13, Pages 5123-5124  Impact Factor: 2.512   Quartile: 1   Citations: 10  DOI: 10.1109/JSEN.2016.2556715	2016
Modeling of Compositional Analysis for Liquid Solvents in Microfluidic Channel Using Split Ball Resonator  Tahir Ejaz Hamood Ur Rahman Adnan Masood Tahir Zaidi Muhammad Naveed  International Journal of E-Learning and Educational Technologies in the Digital Media (IJEETDM), Volume 2. Issue no 2, Pages 73-79  Impact Factor: -  DOI: N/A	2016
An Intelligent Adaptive Filter for Elimination of Power Line Interference From High Resolution  Electrocardiogram  Nauman Razzaq Muhammad Salman Tahir Zaidi Shafa-At Ali Sheikh  IEEE Access, Volume 4, Pages 1676-1688  Impact Factor: 3.244   Quartile: 1   Citations: 42  DOI: 10.1109/ACCESS.2016.2548362	2016
Shield Optimization and Formulation of Regression Equations for Split-Ring Resonator  Tahir Ejaz Hamood Ur Rahman Tauseef Tauqeer Adnan Masood Tahir Zaidi	2016

Mathematical Problems in Engineering, Volume 2016, Article ID 4754192, 10 pages

Mathematics, Volume 11, Issue 2, Article Number 350

Impact Factor: 0.802 | Quartile: 3 | Citations: 4 DOI: http://dx.doi.org/10.1155/2016/4754192 Nonparametric Spectral Estimation Technique to Estimate Dominant Frequency for Atrial Fibrillation 2015 Detection Shafa-at Ali Sheikh Nauman Razzaq Tahir Zaidi Journal of Signal and Information Processing, Volume 6, Issue No.4, Pages 266-276 Impact Factor: 0 DOI: 10.4236/jsip.2015.64025 2015 Analysis, simulation, and experimental verification of split-ring resonator Touseef Hayat Tahir Ejaz Muhammad Naveed Tahir Zaid Hamood Ur Rahman Microwave and Optical Technology Letters, Volume 57, Issue 10, Pages 2358-2363 Impact Factor: 0.545 | Quartile: 4 | Citations: 4 DOI: 10.1002/mop.31037 An Improved Infrared/Visible Fusion for Astronomical Images 2015 Attiq Ahmad Syed Muhammad Tahir Zaidi Muhammad Mohsin Riaz Abdul Ghafoor Advances in Astronomy, Volume 2015, Article ID 203872, 8 pages Impact Factor: 0.811 | Quartile: 4 | Citations: 7 **DOI:** 10.1155/2015/203872 Electrical and magnetic properties of Ga1-xGdxN grown by metal organic chemical vapor deposition 2011 Syed Muhammad Tahir Zaidi Shalini Gupta Andrew Melton Enno Malguth Hongbo Yu Zhiqiang Liu Xiaotao Liu Justin Schwartz Ian T. Ferguson Journal of Applied Physics, Volume 110, Issue 8, Article Number 083920 Impact Factor: 2.168 | Quartile: 2 | Citations: 23 DOI: https://doi.org/10.1063/1.3656019 Growth of pattern-free InN micropyramids by metalorganic chemical vapor deposition 2010 Tahir Zaidi Muhammad Jamil Tianming Xu Andrew Melton Balakrishnam Jampana Chee-Loon Tan Boon S. Ooi lan T. Ferguson Physica Status Solidi (A) Applications and Materials Science, Volume 207, Issue 8, Pages 1895-1899 Impact Factor: 1.472 | Quartile: 2 | Citations: 4 DOI: https://doi.org/10.1002/pssa.200925462 2009 N -type, p -type and semi-insulating ZnO:N thin film growth by metal organic chemical vapor deposition with N H3 doping Syed Muhammad Tahir Zaidi Andrew Melton William E. Fenwick Ian Ferguson Journal of Vacuum Science and Technology B: Microelectronics and Nanometer Structures, Volume 27, Issue 4, Pages 1904-1908 Impact Factor: 1.460 | Quartile: 2 | Citations: 10 DOI: 10.1116/1.3151829 MOVPE growth of transition-metal-doped GaN and ZnO for spintronic applications 2008 Syed Muhammad Tahir Zaidi S. Gupta W.E. Fenwick A. Melton H. Yu V. Rengarajan J. Nause A. Ougazzaden I.T. Ferguson Journal of Crystal Growth, Volume 310, Issue 23, Pages 5032-5038 Impact Factor: 1.757 | Quartile: 2 | Citations: 35 **DOI:** 10.1016/j.jcrysgro.2008.07.046 Effects of N doping on ZnO thin films grown by MOVPE 2008 Syed Muhammad Tahir Zaidi William E. Fenwick Andrew Melton Nola Li Shalini Gupta Hongbo Yu Abdallah Ougazzaden lan Ferguson Journal of Crystal Growth, Volume 310, Issue 23, Pages 5011-5015 Impact Factor: 1.757 | Quartile: 2 | Citations: 6 DOI: 10.1016/j.jcrysgro.2008.07.124 Conference Proceedings A Comparative Analysis of Hairpin Resonator and Split Cuboid Resonator 2019 Muhammad Asad Tahir Ejaz Sanaan Haider M. Haris Amir Tahir Zaidi The Eighth International Conference on Advances in Computing, Communication and Information Technology (CCIT 2019), res.country(231,)

DOI: https://www.researchgate.net/publication/333394725\_A\_Comparative\_Analysis\_of\_Hairpin\_Resonator\_and\_Split\_Cuboid\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Split\_Resonator\_and\_Sp

#### Resonant Behavior Analysis of Split-Ring Due to Positional Change of Dielectric Material

2019

Sanaan Haider Tahir Ejaz Muhammad Muneeb ul Hassan Muhammad Asad Brig. Syed Muhammad Tahir Zaidi

The sixth International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAEECE2019), res.country(126,)

Citations: N/A

Spectroscopic Properties of Blood for Pulse Oximeter Design  Abeera Vaqar Intisar Rizwan I Haque Tahir Zaidi  2019 9th International Conference on Biomedical Engineering and Technology, res.country(113,)  Citations: N/A  DOI: 10.1145/3326172.3326205	2019
Modified Split Ring Resonator with Enhanced Permittivity Sensitivity  Misbah Younis Tahir Ejaz Hamood Ur Rahman Tahir Zaidi International Electrical Engineering Congress, res.country(217,)  Citations: N/A  DOI: Nil	2019
Design and FEM Modeling of an Electrostatic RFMEMS Varactor  Shakila Shaheen Muhammad Mubasher Saleem Syed Muhammad Tahir Zaidi  2018 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube), res.country(177,)  Citations: N/A  DOI: 10.1109/ICECUBE.2018.8610977	2018
Bond Graph Modeling of Lungs  Adeela Arshad Amer Sohail Kashif Muhammad Wasim Naveed Mazhar Syed M.Tahir Zaidi  2018 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube), res.country(177,)  Citations: N/A  DOI: 10.1109/ICECUBE.2018.8610994	2018
Modelling Inspiration and Expiration Mechanism of Lung using Bond Graph  Tahir Zaidi Adeela Arshad Amer Sohail Kashif Muhammad Wasim Naveed Mazhar  2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), res.country(38,)  Citations: N/A  DOI: 10.1109/IEMCON.2018.8615031	2018
Design, Simulation and Parametric Optimization of MEMS based Varactor  Shakila Shaheen Muhammad Mubasher Saleem Syed Muhammad Tahir Zaidi Ayesha Akhtar  2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), res.country(38,)  Citations: N/A  DOI: 10.1109/IEMCON.2018.8614949	2018
Design and Simulation of MEMS based Varactor with Tunability for Digital Communication Systems  Ayesha Akhtar Syed Muhammad Tahir Zaidi Fahimullah Khan Javaria Nadeem Shakila Shaheen  2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), res.country(38,)  Citations: N/A  DOI: 10.1109/IEMCON.2018.8614829	2018
Muscles Movement Intention Detection from EEG using Movement Related Cortical Potentials (MRCPs)  Muddassar Hussain Kamran A. Bhatti Tahir Zaidi  2017 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT), res.country(68,)  Citations: N/A  DOI: 10.1109/ISSPIT.2017.8388670	2017
Muscles Movement Intention Detection from EEG using Movement Related Cortical Potentials (MRCPs)  Muddassar Hussain Kamran A. Bhatti Tahir Zaidi  17th IEEE International Symposium on Signal Processing and Information Technology, res.country(68,)  Citations: N/A  DOI: 10.1109/ISSPIT.2017.8388670	2017
Synthesis and characterization of undoped and silver doped titanium dioxide thin film by using sol-gel spin coating method  Mansoor Hussain Tahir Zaidi Muhammad Quddamah Khokhar Tanveer Ashraf Attaullah Shah 6th International Conference on Advances in Mechanical and Robotics Engineering, res.country(109,)  Citations: N/A  DOI: 10.15224/978-1-63248-138-2-06	2017
Low temperature hydrothermal growth of aligned zinc oxide panowires using ETO substrate	2017

 $\textbf{DOI:} \ https://www.researchgate.net/publication/333394716\_Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Of\_Split-Resonant\_Behavior\_Analysis\_Ana$ 

Muhammad Quddamah Khokhar Tanveer Ashraf Tahir Zaidi Zahid Ali Mansoor Hussain

 $Ring\_Resonator\_Due\_to\_Positional\_Change\_of\_Dielectric\_Material$ 

6th International Conference on Advances in Mechanical and Robotics Engineering, res.country(109,)	
Citations: N/A	
DOI: 10.15224/978-1-63248-138-2-04	
Simulation Based Sensitivity Analysis of Split Ring Resonator for Detecting Compositional Variations	2017
in Mixture of Polar Liquids	
Mashhood Ahmad M. Haris Amir Muhammad Naveed Tahir Ejaz Tahir Zaid Muhammad Shoaib	
7th International Conference On Advances In Computing, Electronics And Electrical Technology - CEET 2017, res.country(157,)	
Citations: N/A	
<b>DOI:</b> 10.15224/978-1-63248-126-9-29	
Simulation Based Sensitivity Analysis of Split Ring Resonator for Detecting Compositional Variations	2017
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M. Haris Amir Muhammad Naveed Tahir Ejaz Tahir Zaidi Muhammad Shoaib Mashhood Ahmad 7th International Conference on Advances in Computing, Electronics and Electrical Technology, res.country(157,)	
Citations: N/A	
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Simulation based Comparative Analysis of Resonant Frequency for Tunable Split Ring Resonator in	2017
Different Configurations	2017
Muhammad Shoaib Muhammad Naveed Tahir Ejaz Tahir Zaidi Haris Amir Mashhood Ahmad	
5th International Conference on Advances in Computing, Electronics and Communication, res.country(109,)	
Citations: N/A	
<b>DOI:</b> 10.15224/978-1-63248-121-4-06	
Thermal Modeling and Design Analysis of a Hybrid Microdevice for Continuous-Flow PCR using One	2016
Heater	
Usama Bin Perwez Imran Akhtar Imran Aziz Tahir Zaidi	
2016 International Mechanical Engineering Congress and Exposition IMECE2016, res.country(233,)	
Citations: N/A  DOI: https://doi.org/10.1115/IMECE2016-65594	
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 (TAEECE2016), res.country(157,)	
Citations: N/A	
DOI: Nil	
Modeling of Compositional Analysis for Liquid Solvents in Microfluidic Channel Using Split Ball	2016
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	
<b>DOI:</b> http://dx.doi.org/10.17781/P002051	
Differentiation between Atrial Fibrillation and Atrial Flutter using 1D Poincare Maps based on	2016
endocardial bipolar intracardiac electrograms extracted from the Right Atria	
Syed Hassan Zaidi Shafa-at Ali Sheikh Imran Akhtar Tahir Zaidi	
2016 13th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)	
Citations: N/A  DOI: 10.1109/IBCAST.2016.7429858	
<b>201.</b> 10.1100/IDOA01.2010.7420000	
Glass based polymerase chain reaction device for DNA amplification	2015
Rabia Jamshaid Imran Aziz Imran Akhtar Tahir Zaidi Hamood Ur Rahman 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	

Digitally Imaged Elasto Tomography A unique, new approach to breast cancer screening Amer Sohail Kashif Tahir Zaidi Thomas Lotz James Geoffrey Chase

Third International Conference on Advances in Mechanical and Robotics Engineering- AMRE 2015, res.country(43,)

Citations: N/A

**DOI:** 10.15224/978-1-63248-066-8-54

**Digitally Imaged Elasto Tomography** 

2015

2015

Amer Kashif Thomas Lotz Tahir Zaidi J. G. Chase 3rd International Conference on Advances in Mechanical and Robotics Engineering - AMRE 2015, res.country(43,) Citations: N/A DOI: N/A A Comparative Analysis of Split-Ring Resonator Models 2015 Tahir Ejaz Hamood Ur Rahman Syed Afaq Ali Shah Tahir Zaidi 4th International Conference on Informatics, Electronics & Vision (ICIEV), res.country(113,) Citations: N/A DOI: 10.13140/RG.2.1.1251.1845 Improved Shield Design for Split-Ring Resonator 2015 Tahir Ejaz Syed Afaq Ali Shah Hamood Ur Rahman Brig. Syed Muhammad Tahir Zaidi 2015 Third International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAEECE), res.country(126,) Citations: 3 DOI: 10.1109/TAEECE.2015.7113628 An Intelligent Adaptive Filter for Fast Tracking and Elimination of Power line Interference from ECG 2013 Signal Nauman Razzaq Maryam Butt Muhammad Salman Rahat Ali Ismail Sadiq Khalid Munawar Tahir Zaidi CBMS 2013 - 26th IEEE International Symposium on Computer-Based Medical Systems, res.country(183,) Citations: N/A DOI: 10.1109/CBMS.2013.6627797 Power Line Interference Tracking in ECG Signal using State Space RLS 2013 Maryam Butt Nauman Razzaq Ismail Sadiq Muhammad Salman Tahir Zaidi 2013 IEEE 8th Conference on Industrial Electronics and Applications (ICIEA), res.country(13,) Citations: N/A

2012

2004

Theoretical studies of InGaN/GaN multiple junction solar cell with enhanced tunneling junction diode Shahzad Hussain Ghulam Ali Haris Mehmood Muhammad Omar Tahir Zaidi

4th International Conference on Solid State Science and Technology (ICSSST 2012), res.country(157,)

Citations: N/A

DOI: 10.4028/www.scientific.net/AMR.895.535

An Area and time Efficient collapsed Modified Cordic DDFS Architecture for High Rate digital receivers

Tahir Zaidi Qaiser Chaudry Shoab A Khan

8th International Multitopic Conference, res.country(177,)

Citations: N/A

DOI: 10.1109/INMIC.2004.1492976-

DOI: 10.1109/ICIEA.2013.6566367