

# Syed Muhammad Tahir Zaidi

Defence Faculty

College of Electrical & Mechanical Engineering

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## 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
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## Experience

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

## Professional Memberships

PEC

## Research Projects

<b>National Projects</b>	
<b>Real-time Monitoring, Analysis and Predictive Maintenance of Industrial Machinery based on industry 4.0 concept using IoTs</b> Funding Agency: IGNITE Amount: PKR N/A Status: Completed	2021
<b>Design and Fabrication of ICU grade and Emergency Ventilator</b> Funding Agency: HEC TTTF Amount: PKR 11,733,960.00 Status: Completed	2021

## International Projects

## Research Articles

<b>A Computationally Efficient Distributed Framework for a State Space Adaptive Filter for the Removal of PLI from Cardiac Signals</b> <i>Inam ur Rehman Hasan Raza Nauman Razzaq Jaroslav Frnda Syed Muhammad Tahir Zaidi Waseem Abbasi Muhammad Shahid Anwar</i>	2023
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**Model Predictive Control: Taking the idea of Artificial Pancreas a step forward for Diabetes Management**

2021

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

**Computational Modeling of Inertial Effects on Electromechanics of the Heart**

2019

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

**Permittivity sensing and measurement with novel split ball resonator using E-field perturbation technique**

2018

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>

**Multiphysics design optimization of RF-MEMS switch using response surface methodology**

2018

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

**99.9% Accurate R Wave Extraction from ECG Signal using Wavelet Transform**

2017

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

**Fusion of multi-focus images with registration inaccuracies**

2017

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

**Noise Resistant Fusion for Multi-Exposure Sensors**

2016

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

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

2016

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

**An Intelligent Adaptive Filter for Elimination of Power Line Interference From High Resolution Electrocardiogram**

2016

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

**Shield Optimization and Formulation of Regression Equations for Split-Ring Resonator**

2016

Tahir Ejaz Hamood Ur Rahman Tauseef Tauqeer Adnan Masood Tahir Zaidi  
*Mathematical Problems in Engineering*, Volume 2016, Article ID 4754192, 10 pages

<b>Impact Factor:</b> 0.802   <b>Quartile:</b> 3   <b>Citations:</b> 4 <b>DOI:</b> <a href="http://dx.doi.org/10.1155/2016/4754192">http://dx.doi.org/10.1155/2016/4754192</a>	
<b>Nonparametric Spectral Estimation Technique to Estimate Dominant Frequency for Atrial Fibrillation Detection</b> <i>Shafa-at Ali Sheikh Nauman Razzaq Tahir Zaidi</i> <i>Journal of Signal and Information Processing</i> , Volume 6, Issue No.4, Pages 266-276 <b>Impact Factor:</b> 0 <b>DOI:</b> 10.4236/jsip.2015.64025	2015
<b>Analysis, simulation, and experimental verification of split-ring resonator</b> <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 <b>Impact Factor:</b> 0.545   <b>Quartile:</b> 4   <b>Citations:</b> 4 <b>DOI:</b> 10.1002/mop.31037	2015
<b>An Improved Infrared/Visible Fusion for Astronomical Images</b> <i>Attiq Ahmad Syed Muhammad Tahir Zaidi Muhammad Mohsin Riaz Abdul Ghafoor</i> <i>Advances in Astronomy</i> , Volume 2015, Article ID 203872, 8 pages <b>Impact Factor:</b> 0.811   <b>Quartile:</b> 4   <b>Citations:</b> 7 <b>DOI:</b> 10.1155/2015/203872	2015
<b>Electrical and magnetic properties of Ga<sub>1-x</sub>Gd<sub>x</sub>N grown by metal organic chemical vapor deposition</b> <i>Syed Muhammad Tahir Zaidi Shalini Gupta Andrew Melton Enno Malguth Hongbo Yu Zhiqiang Liu Xiaotao Liu Justin Schwartz Ian T. Ferguson</i> <i>Journal of Applied Physics</i> , Volume 110, Issue 8, Article Number 083920 <b>Impact Factor:</b> 2.168   <b>Quartile:</b> 2   <b>Citations:</b> 23 <b>DOI:</b> <a href="https://doi.org/10.1063/1.3656019">https://doi.org/10.1063/1.3656019</a>	2011
<b>Growth of pattern-free InN micropylramids by metalorganic chemical vapor deposition</b> <i>Tahir Zaidi Muhammad Jamil Tianming Xu Andrew Melton Balakrishnam Jampana Chee-Loon Tan Boon S. Ooi Ian T. Ferguson</i> <i>Physica Status Solidi (A) Applications and Materials Science</i> , Volume 207, Issue 8, Pages 1895-1899 <b>Impact Factor:</b> 1.472   <b>Quartile:</b> 2   <b>Citations:</b> 4 <b>DOI:</b> <a href="https://doi.org/10.1002/pssa.200925462">https://doi.org/10.1002/pssa.200925462</a>	2010
<b>N -type, p -type and semi-insulating ZnO:N thin film growth by metal organic chemical vapor deposition with N H3 doping</b> <i>Syed Muhammad Tahir Zaidi Andrew Melton William E. Fenwick Ian Ferguson</i> <i>Journal of Vacuum Science and Technology B: Microelectronics and Nanometer Structures</i> , Volume 27, Issue 4, Pages 1904-1908 <b>Impact Factor:</b> 1.460   <b>Quartile:</b> 2   <b>Citations:</b> 10 <b>DOI:</b> 10.1116/1.3151829	2009
<b>MOVPE growth of transition-metal-doped GaN and ZnO for spintronic applications</b> <i>Syed Muhammad Tahir Zaidi S. Gupta W.E. Fenwick A. Melton H. Yu V. Rengarajan J. Nause A. Ougazzaden I.T. Ferguson</i> <i>Journal of Crystal Growth</i> , Volume 310, Issue 23, Pages 5032-5038 <b>Impact Factor:</b> 1.757   <b>Quartile:</b> 2   <b>Citations:</b> 35 <b>DOI:</b> 10.1016/j.jcrysgro.2008.07.046	2008
<b>Effects of N doping on ZnO thin films grown by MOVPE</b> <i>Syed Muhammad Tahir Zaidi William E. Fenwick Andrew Melton Nola Li Shalini Gupta Hongbo Yu Abdallah Ougazzaden Ian Ferguson</i> <i>Journal of Crystal Growth</i> , Volume 310, Issue 23, Pages 5011-5015 <b>Impact Factor:</b> 1.757   <b>Quartile:</b> 2   <b>Citations:</b> 6 <b>DOI:</b> 10.1016/j.jcrysgro.2008.07.124	2008

## Conference Proceedings

<b>A Comparative Analysis of Hairpin Resonator and Split Cuboid Resonator</b> <i>Muhammad Asad Tahir Ejaz Sanaa Haider M. Haris Amir Tahir Zaidi</i> <i>The Eighth International Conference on Advances in Computing, Communication and Information Technology (CCIT 2019)</i> , res.country(231.) <b>Citations:</b> N/A <b>DOI:</b> <a href="https://www.researchgate.net/publication/333394725_A_Comparative_Analysis_of_Hairpin_Resonator_and_Split_Cuboid_Resonator">https://www.researchgate.net/publication/333394725_A_Comparative_Analysis_of_Hairpin_Resonator_and_Split_Cuboid_Resonator</a>	2019
<b>Resonant Behavior Analysis of Split-Ring Due to Positional Change of Dielectric Material</b> <i>Sanaa Haider Tahir Ejaz Muhammad Muneeb ul Hassan Muhammad Asad Brig. Syed Muhammad Tahir Zaidi</i> <i>The sixth International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAECE2019)</i> , res.country(126.) <b>Citations:</b> N/A	2019

DOI: <a href="https://www.researchgate.net/publication/333394716_Resonant_Behavior_Analysis_of_Split-Ring_Resonator_Due_to_Positional_Change_of_Dielectric_Material">https://www.researchgate.net/publication/333394716_Resonant_Behavior_Analysis_of_Split-Ring_Resonator_Due_to_Positional_Change_of_Dielectric_Material</a>	
<b>Spectroscopic Properties of Blood for Pulse Oximeter Design</b>	2019
<i>Abeera Vaqar Intisar Rizwan I Haque Tahir Zaidi</i>	
2019 9th International Conference on Biomedical Engineering and Technology, res.country(113,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1145/3326172.3326205	
<b>Modified Split Ring Resonator with Enhanced Permittivity Sensitivity</b>	2019
<i>Misbah Younis Tahir Ejaz Hamood Ur Rahman Tahir Zaidi</i>	
International Electrical Engineering Congress, res.country(217,)	
<b>Citations:</b> N/A	
<b>DOI:</b> Nil	
<b>Design and FEM Modeling of an Electrostatic RFMEMS Varactor</b>	2018
<i>Shakila Shaheen Muhammad Mubasher Saleem Syed Muhammad Tahir Zaidi</i>	
2018 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube), res.country(177,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/ICECUBE.2018.8610977	
<b>Bond Graph Modeling of Lungs</b>	2018
<i>Adeela Arshad Amer Sohail Kashif Muhammad Wasim Naveed Mazhar Syed M. Tahir Zaidi</i>	
2018 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube), res.country(177,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/ICECUBE.2018.8610994	
<b>Modelling Inspiration and Expiration Mechanism of Lung using Bond Graph</b>	2018
<i>Tahir Zaidi Adeela Arshad Amer Sohail Kashif Muhammad Wasim Naveed Mazhar</i>	
2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), res.country(38,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/IEMCON.2018.8615031	
<b>Design, Simulation and Parametric Optimization of MEMS based Varactor</b>	2018
<i>Shakila Shaheen Muhammad Mubasher Saleem Syed Muhammad Tahir Zaidi Ayesha Akhtar</i>	
2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), res.country(38,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/IEMCON.2018.8614949	
<b>Design and Simulation of MEMS based Varactor with Tunability for Digital Communication Systems</b>	2018
<i>Ayesha Akhtar Syed Muhammad Tahir Zaidi Fahimullah Khan Javaria Nadeem Shakila Shaheen</i>	
2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), res.country(38,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/IEMCON.2018.8614829	
<b>Muscles Movement Intention Detection from EEG using Movement Related Cortical Potentials (MRCPs)</b>	2017
<i>Muddassar Hussain Kamran A. Bhatti Tahir Zaidi</i>	
2017 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT), res.country(68,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/ISSPIT.2017.8388670	
<b>Muscles Movement Intention Detection from EEG using Movement Related Cortical Potentials (MRCPs)</b>	2017
<i>Muddassar Hussain Kamran A. Bhatti Tahir Zaidi</i>	
17th IEEE International Symposium on Signal Processing and Information Technology, res.country(68,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/ISSPIT.2017.8388670	
<b>Synthesis and characterization of undoped and silver doped titanium dioxide thin film by using sol-gel spin coating method</b>	2017
<i>Mansoor Hussain Tahir Zaidi Muhammad Quddamah Khokhar Tanveer Ashraf Attaullah Shah</i>	
6th International Conference on Advances in Mechanical and Robotics Engineering, res.country(109,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.15224/978-1-63248-138-2-06	
<b>Low temperature hydrothermal growth of aligned zinc oxide nanowires using FTO substrate</b>	2017
<i>Muhammad Quddamah Khokhar Tanveer Ashraf Tahir Zaidi Zahid Ali Mansoor Hussain</i>	

6th International Conference on Advances in Mechanical and Robotics Engineering, res.country(109,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.15224/978-1-63248-138-2-04	
<b>Simulation Based Sensitivity Analysis of Split Ring Resonator for Detecting Compositional Variations in Mixture of Polar Liquids</b>	2017
<i>Mashhood Ahmad M. Haris Amir Muhammad Naveed Tahir Ejaz Tahir Zaid Muhammad Shoaib</i>	
7th International Conference On Advances In Computing, Electronics And Electrical Technology - CEET 2017, res.country(157,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.15224/978-1-63248-126-9-29	
<b>Simulation Based Sensitivity Analysis of Split Ring Resonator for Detecting Compositional Variations in Mixture of Polar Liquids</b>	2017
<i>M. Haris Amir Muhammad Naveed Tahir Ejaz Tahir Zaidi Muhammad Shoaib Mashhood Ahmad</i>	
7th International Conference on Advances in Computing, Electronics and Electrical Technology , res.country(157,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.15224/978-1-63248-126-9-29	
<b>Simulation based Comparative Analysis of Resonant Frequency for Tunable Split Ring Resonator in Different Configurations</b>	2017
<i>Muhammad Shoaib Muhammad Naveed Tahir Ejaz Tahir Zaidi Haris Amir Mashhood Ahmad</i>	
5th International Conference on Advances in Computing, Electronics and Communication, res.country(109,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.15224/978-1-63248-121-4-06	
<b>Thermal Modeling and Design Analysis of a Hybrid Microdevice for Continuous-Flow PCR using One Heater</b>	2016
<i>Usama Bin Perwez Imran Akhtar Imran Aziz Tahir Zaidi</i>	
2016 International Mechanical Engineering Congress and Exposition IMECE2016, res.country(233,)	
<b>Citations:</b> N/A	
<b>DOI:</b> <a href="https://doi.org/10.1115/IMECE2016-65594">https://doi.org/10.1115/IMECE2016-65594</a>	
<b>Simulation Based Comparative Analysis of Split Resonators for Compositional Analysis</b>	2016
<i>Touseef Hayat Tahir Ejaz Muhammad Naveed Tahir Zaidi Hamood Ur Rahman</i>	
Fourth International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAECE2016), res.country(157,)	
<b>Citations:</b> N/A	
<b>DOI:</b> Nil	
<b>Modeling of Compositional Analysis for Liquid Solvents in Microfluidic Channel Using Split Ball Resonator</b>	2016
<i>Tahir Ejaz Hamood Ur Rahman Adnan Masood Syed Muhammad Tahir Zaidi Muhammad Naveed</i>	
The Third International Conference on Electrical, Electronics, Computer Engineering and their Applications (EECEA2016), res.country(126,)	
<b>Citations:</b> N/A	
<b>DOI:</b> <a href="http://dx.doi.org/10.17781/P002051">http://dx.doi.org/10.17781/P002051</a>	
<b>Differentiation between Atrial Fibrillation and Atrial Flutter using 1D Poincare Maps based on endocardial bipolar intracardiac electrograms extracted from the Right Atria</b>	2016
<i>Syed Hassan Zaidi Shafa-at Ali Sheikh Imran Akhtar Tahir Zaidi</i>	
2016 13th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/IBCAST.2016.7429858	
<b>Glass based polymerase chain reaction device for DNA amplification</b>	2015
<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,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.1109/HONET.2015.7395416	
<b>Digitally Imaged Elasto Tomography A unique, new approach to breast cancer screening</b>	2015
<i>Amer Sohail Kashif Tahir Zaidi Thomas Lotz James Geoffrey Chase</i>	
Third International Conference on Advances in Mechanical and Robotics Engineering- AMRE 2015, res.country(43,)	
<b>Citations:</b> N/A	
<b>DOI:</b> 10.15224/978-1-63248-066-8-54	
<b>Digitally Imaged Elasto Tomography</b>	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 (TAECE), res.country(126,)

Citations: 3

DOI: 10.1109/TAECE.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

DOI: 10.1109/ICIEA.2013.6566367

**Theoretical studies of InGaN/GaN multiple junction solar cell with enhanced tunneling junction diode**

2012

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**

2004

Tahir Zaidi Qaiser Chaudry Shoab A Khan

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

Citations: N/A

DOI: 10.1109/INMIC.2004.1492976-