

Imtiaz Hussain Kalwar

Assistant Professor
Pakistan Navy Engineering College

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About

Dr. Imtiaz Hussain Kalwar is working as Assistant Professor in the Pakistan Navy Engineering College. Dr. Imtiaz Hussain Kalwar has a PhD in Vehicle Systems Dynamics And Control. Dr. Imtiaz Hussain Kalwar has published 43 research articles & conference papers having a citation count of 185, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Vehicle Systems Dynamics And Control	2008 - 2012
University of Salford , United Kingdom	
Post Grad Diploma in Telecom and Control	2005 - 2006
Mehran University of Engineering & Technology , Pakistan	
BE in Electronic	2000 - 2004
Mehran University of Engineering & Technology , Pakistan	

Experience

Assistant Professor	2024- Present
Pakistan Navy Engineering College	
Assistant Professor	2021 - 2021
Pakistan Navy Engineering College	
Director QEC	2019 - 2021
DHA Suffa University , DHA Suffa University, Karachi	
HOD Electrical Engineering	2018 - 2020
DHA Suffa University , DHA Suffa University, Karachi	
Associate Professor	2017 - 2021
Department of Electrical Engineering, DHA Suffa University, , Department of Electrical Engineering, DHA Suffa University, Karachi	
Co-Director Institute of Information & Communication Technologies	2017 - 2017
Mehran University of Engineering & Technology , Mehran University of Engineering & Technology, Jamshoro	
In charge HOD Department of Electronic Engineering	2015 - 2015
Mehran University of Engineering & Technology , Mehran University of Engineering & Technology, Jamshoro	
Associate Professor	2015 - 2017
Mehran University of Engineering & Technology (MUET)y, , Mehran University of Engineering & Technology (MUET), Jamshoro	
Assistant Professor	2012 - 2015
Mehran University of Engineering & Technology (MUET) , Mehran University of Engineering & Technology (MUET)Jamshoro	
Lecturer	2009 - 2012
Mehran University of Engineering & Technology (MUET) , Mehran University of Engineering & Technology (MUET), Jamshoro	
Lab-Lecturer	2004 - 2009
Mehran University of Engineering & Technology (MUET) , Mehran University of Engineering & Technology (MUET), Jamshoro	

Research Articles

Hot wire thermopol cutting using CNC machine	2023
Shahzor Memon Imtiaz Hussain Abdul Hameed Memon Muhammad Shakir Halar Mustafa Sadiq ur Rehman	
Mehran University Research Journal of Engineering and Technology, Volume 42(4), Pages 19-27	
Impact Factor: 0.600 Quartile: 3	

DOI: https://doi.org/10.22581/muet1982.2304.2658	
Deeplearning-based fault detection in railway wheelsets using time series analysis	2023
Khurram Shaikh Imtiaz Hussain Bhawani Shankar Chowdhry <i>Mehran University Research Journal of Engineering and Technology</i> , Volume 42(3), Pages 154-159 Impact Factor: 0.6 Quartile: 3 DOI: https://doi.org/10.22581/muet1982.2303.15	
Embedded System Development for Detection of Railway Track Surface Deformation Using Contour Feature Algorithm	2023
Tarique Rafique Memon Tayab Din Memon Imtiaz Hussain Bhawani Shankar Chowdhry <i>Computers, Materials and Continua</i> , Volume 75(2), Article Number 2461-2477 Impact Factor: 3.860 Quartile: 2 Citations: 4 DOI: https://doi.org/10.32604/cmc.2023.035413	
FPGA Implementation of Extended Kalman Filter for Parameters Estimation of Railway Wheelset	2022
Khakoo Mal Tayab Din Memon Imtiaz Hussain Bhawani Shankar Chowdhry <i>Computers, Materials and Continua</i> , Volume 74(2), Pages 3351-3370 Impact Factor: 3.860 Quartile: 2 Citations: 5 DOI: 10.32604/cmc.2023.032940	
Fault Detection and Identification Using Deep Learning Algorithms in Induction Motors	2022
Majid Hussain Tayab Din Memon Imtiaz Hussain Zubair Ahmed Memon Dileep Kumar Soother <i>Computer Modeling in Engineering & Sciences</i> , Vol.133, No.2, Impact Factor: 2.027 Quartile: 2 Citations: 25 DOI: 10.32604/cmes.2022.020583	
Modern Condition Monitoring Systems for Railway Wheel set Dynamics: Performance Analysis and Limitations of Existing Techniques	2022
Khakoo Mal Imtiaz Hussain Tayab Din Memon Dileep Kumar Soother Bhawani Shankar Chowdhry <i>Sir Syed University Research Journal of Engineering and Technology</i> , Volume 12, No. 1, Pages 31-41 Impact Factor: N/A DOI: https://doi.org/10.33317/ssurj.419	
Model Based Indirect Conicity Estimation Technique for Solid Axle Railway Wheelset	2021
Erum Saba Imtiaz Hussain Mukhtiar Ali Unar <i>Mehran University Research Journal of Engineering and Technology</i> , Volume 40, No. 4, Pages 753-760 Impact Factor: 0 DOI: http://dx.doi.org/10.22581/muet1982.2104.06	
Fuzzy Logic-Based Identification of Railway Wheelset Conicity Using Multiple Model Approach	2021
Erum Saba Imtiaz Hussain Kalwar Mukhtiar Ali Unar Abdul Latif Memon Nasrullah Pirzada <i>Sustainability</i> , Volume 13(18), Article Number 10249 Impact Factor: 3.251 Quartile: 2 Citations: 6 DOI: https://doi.org/10.3390/su131810249	
Stator winding fault detection and classification in three-phase induction motor	2021
Imtiaz Hussain Majid Hussain Dileep Kumar Soother Tayab Din Memon Zubair Ahmed Memon Kashif Nisar Bhawani Shankar Chowdhry <i>Intelligent Automation & Soft Computing</i> , Volume 29, No.3, Pages 869-883 Impact Factor: 1.647 Quartile: 3 Citations: 24 DOI: 10.32604/iasc.2021.017790	
A novel method based on UNET for bearing fault diagnosis	2021
Imtiaz Hussain Dileep Kumar Soother Tanweer Hussain Bhawani Shankar Chowdhry Sanaullah Mehran Ujjan Tayab Din Memon <i>CMC-Computers, Materials & Continua</i> , Volume 69, No.1, Pages 393-408 Impact Factor: 3.772 Quartile: 2 Citations: 12 DOI: 10.32604/cmc.2021.014941	
The Importance of Feature Processing in Deep-Learning-Based Condition Monitoring of Motors	2021
Dileep Kumar Soother Jawaidd Daudpoto Nicholas R. Harris Majid Hussain Sanaullah Mehran Imtiaz Hussain Tayab Din Memon <i>Mathematical Problems in Engineering</i> , Volume 2021, Article ID 9927151, 23 pages Impact Factor: 1.430 Quartile: 3 Citations: 17 DOI: https://doi.org/10.1155/2021/9927151	
A New Estimation of Nonlinear Contact Forces of Railway Vehicle	2021
Imtiaz Hussain Kalwar Khakoo Mal Khurram Shaikh Tayab Din Memon Bhawani Shankar Chowdhry Kashif Nisar Manoj Gupta	

<p><i>Intelligent Automation and Soft Computing</i>, Volume 28, No.3, Pages 823-841</p> <p>Impact Factor: 1.647 Quartile: 3 Citations: 10</p> <p>DOI: 10.32604/iasc.2021.016990</p>		
<p>Signal Based Indirect Wheel Profile Estimation Technique for Solid Axle Railway Wheelset</p> <p><i>Khurram Shaikh Imtiaz Hussain Khakoo Mal Bhawani Shankar Chowdhry</i></p> <p><i>Mehran University Research Journal of Engineering and Technology</i>, Volume 40, No. 2, Pages 443-449</p> <p>Impact Factor: 0</p> <p>DOI: http://dx.doi.org/10.22581/muet1982.2102.18</p>		2021
<p>Multiple faults detection and identification of three phase induction motor using advanced signal processing techniques</p> <p><i>Majid Hussain Rana Rizwan Ahmed Imtiaz Hussain Tayab Din Memon</i></p> <p><i>3C Tecnología</i>, Pages 93-117</p> <p>Impact Factor: N/A</p> <p>DOI: https://doi.org/10.17993/3ctecno.2020.specialissue6.93-117</p>		2020
<p>Indirect Identification of Varying Conicity Levels of Wheel Tread Using Convolutional Neural Networks</p> <p><i>Khuram Shaikh Sanaullah Mehran Ujjan Imtiaz Hussain Bhawani Shankar Chowdhry</i></p> <p><i>International Journal of Advanced Science and Technology</i>, Volume 29, No. 7, Pages 2537-2547</p> <p>Impact Factor: N/A</p> <p>DOI: http://sersc.org/journals/index.php/IJAST/article/view/18026</p>		2020
<p>Extended Kalman filter for estimation of contact forces at wheel-rail interface</p> <p><i>Khakoo Mal Imtiaz Hussain Bhawani Shankar Chowdhry Tayab Din Memon</i></p> <p><i>3C Tecnología. Glosas de innovación aplicadas a la pyme</i>, Pages 279-301</p> <p>Impact Factor: N/A</p> <p>DOI: http://doi.org/10.17993/3ctecno.2020.specialissue5.279-301</p>		2020
<p>Fuzzy Logic based Anti-Slip Control of Commuter Train with FPGA Implementation</p> <p><i>Fozia Hajano Farzana Rauf Abro Tayab Din Memon Imtiaz Hussain Burhan Aslam Arain</i></p> <p><i>International Journal of Advanced Computer Science and Applications</i>, Volume 11, No. 4, Pages 293-300</p> <p>Impact Factor: N/A Citations: 2</p> <p>DOI: http://dx.doi.org/10.14569/IJACSA.2020.0110440</p>		2020
<p>Adhesion level identification in wheel-rail contact using deep neural networks</p> <p><i>Sanaullah Mehran Ujjan Imtiaz Hussain Bhawani Shankar Chowdhry Tayab Din Memon Dileep Kumar Soother</i></p> <p><i>3C Tecnología</i>, Volume 2020, Pages 217-231</p> <p>Impact Factor: N/A</p> <p>DOI: http://doi.org/10.17993/3ctecno.2020.specialissue5.217-231</p>		2020
<p>Real Time Identification of Railway Track Surface Faults using Canny Edge Detector and 2D Discrete Wavelet Transform</p> <p><i>Ali Akbar Shah Bhawani S. Chowdhry Tayab D. Memon Imtiaz Hussain J. Andrew Ware</i></p> <p><i>Annals of Emerging Technologies in Computing</i>, Volume 4, No. 2, Pages 53-60</p> <p>Impact Factor: N/A</p> <p>DOI: http://aetic.theiaer.org/archive/v4/v4n2/p5.html</p>		2020
<p>Design and Analysis of Single-Bit Ternary Matched Filter</p> <p><i>Abeer Chang Tayab Din Memon Zahir M. Hussain Bhawani Shankar Chowdhry Imtiaz Hussain Kalwar</i></p> <p><i>Wireless Personal Communications</i>, Volume 106, Pages 1915-1929</p> <p>Impact Factor: 1.061 Quartile: 4 Citations: 4</p> <p>DOI: https://doi.org/10.1007/s11277-018-5729-y</p>		2019
<p>FPGA based on-line fault diagnostic of induction motors using electrical signature analysis</p> <p><i>E. Karim Tayab Din Memon Imtiaz Hussain</i></p> <p><i>International Journal of Information Technology</i>, Volume 11, Pages 165-169</p> <p>Impact Factor: N/A Citations: 15</p> <p>DOI: 10.1007/s41870-018-0238-5</p>		2019
<p>FPGA based Synthesize of PSO Algorithm and its Area-Performance Analysis</p> <p><i>Bharat Lal Harijan Farrukh Shaikh Burhan Aslam Arain Tayab Din Memon Imtiaz Hussain</i></p> <p><i>International Journal of Advanced Computer Science and Applications</i>, Volume 9(6), Pages 270-275</p> <p>Impact Factor: N/A Citations: 3</p> <p>DOI: 10.14569/IJACSA.2018.090639</p>		2018

Time domain System Identification of Longitudinal Dynamics of Single Rotor Model Helicopter using SIDPAC <i>Arbab Nighat Khizer Imtiaz Hussain Wanod Kumar</i> <i>Mehran University Research Journal of Engineering and Technology</i> , Volume 34, No.1, Pages 75-81 Impact Factor: 0 DOI: http://publications.muet.edu.pk/article_detail_abstract.php?p_id=1012	2015
Introducing Dual Suspension System in Road Vehicles <i>Imtiaz Hussain Jawaidd Daudpoto Ali Asghar</i> <i>Mehran University Research Journal of Engineering and Technology</i> , Volume 32, No. 2, Pages 239-244 Impact Factor: 0 DOI: http://publications.muet.edu.pk/article_detail_abstract.php?p_id=763	2013
Estimation of wheel–rail contact conditions and adhesion using the multiple model approach <i>Imtiaz Hussain Kalwar T.X. Mei R.T. Ritchings</i> <i>Vehicle System Dynamics</i> , Volume 51, No.1, Pages 32–53 Impact Factor: 0.872 Quartile: 3 Citations: 46 DOI: https://doi.org/10.1080/00423114.2012.708759	2013
Modeling of Static Characteristics of Switched Reluctance Motor <i>Ali Asghar Memon Imtiaz Hussain Jawaidd Daudpoto</i> <i>Mehran University Research Journal of Engineering and Technology</i> , Volume 32, No. 1, Pages 141-146 Impact Factor: N/A DOI: http://publications.muet.edu.pk/article_detail_abstract.php?p_id=744	2013
Identification of Wheel-Rail Contact Condition Using Multi- Kalman Filtering Approach <i>Imtiaz Hussain Ali Asghar Memon Bhawani Shankar Chowdhry</i> <i>Mehran University Research Journal of Engineering and Technology</i> , Volume 31, No. 4, Pages 799-806 Impact Factor: N/A DOI: http://publications.muet.edu.pk/article_detail_abstract.php?p_id=714	2012
Conference Proceedings	
Railway Track Joints and Fasteners Fault Detection using Principal Component Analysis <i>Muhammad Owais Imtiaz Hussain Gul Shahzad Bilal Muhammad Khan</i> <i>2023 International Conference on Robotics and Automation in Industry (ICRAI)</i> , res.country(177,) Citations: N/A DOI: 10.1109/ICRAI57502.2023.10089579	2023
Unsupervised detection of rail surface defects and rail-head anomalies using Auto-encoder <i>Anas Bin Iftikhar Muhammad Zakir Shaikh Sanaullah Mehran Tanweer Hussain Imtiaz Hussain Bhawani Shankar Chowdhry</i> <i>2022 Global Conference on Wireless and Optical Technologies (GCWOT)</i> , res.country(68,) Citations: N/A DOI: 10.1109/GCWOT53057.2022.9772891	2022
Design and Development of IoT Based Aeroponics Growbox <i>Maaz Ahmed Aliza Farrukh Meshal Iqbal Ayesha Jameel Shah Imtiaz Hussain Asad Kamran</i> <i>2021 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube)</i> , res.country(177,) Citations: N/A DOI: 10.1109/ICECube53880.2021.9628248	2021
Development of Specialized IoT Cloud Platform for Railway Track Condition Monitoring <i>Tarique Rafique Memon Tayab Din Memon Bhawani Shankar Chowdhry Imtiaz Hussain Khakoo Mal</i> <i>International Conference on Robotics and Automation in Industry (ICRAI)</i> , res.country(177,) Citations: N/A DOI: 10.1109/ICRAI54018.2021.9651411	2021
Health Monitoring of Three-Phase Induction Motor Using Current and Vibration Signature Analysis <i>Muhammad Sarfraz Moiz Shazaib Shamim Muhammad Abdullah Hamdan Khan Imtiaz Hussain Anas Bin Iftikhar Tayab Din Memon</i> <i>2019 International Conference on Robotics and Automation in Industry (ICRAI)</i> , res.country(177,) Citations: N/A DOI: 10.1109/ICRAI47710.2019.8967356	2019
Development of predictive maintenance strategy for minimizing the operational disruptions in wind turbines	2018

<p><i>Shoukat Ali Chandar Kumar Imtiaz Hussain Shubash Kumar</i> 2018 International Conference on Computing, Mathematics and Engineering Technologies (iCoMET), res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/ICOMET.2018.8346392</p>	
<p>Design and simulation of anti-lock braking system based on electromagnetic damping phenomena</p> <p><i>Irfanullah khan Imtiaz Hussain M. Zaigham Abbas Shah</i> International Conference on Latest trends in Electrical Engineering and Computing Technologies (INTELLECT), res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/INTELLECT42085.2017</p>	2017
<p>Design and analysis of linear phase FIR filter in FPGA using PSO algorithm</p> <p><i>Fazia Shaikh Imtiaz Hussain Tayab Din Memon Shoaib Sheikh</i> 2017 6th Mediterranean Conference on Embedded Computing (MECO), res.country(139,)</p> <p>Citations: N/A DOI: 10.1109/MECO.2017.7977216</p>	2017
<p>SWL Algorithms Optimization Using Alternative Adder Module in FPGA</p> <p><i>Tayab D. Memon Shaji Farooq Baig Marvi Deshi Imtiaz Hussain</i> 2017 6th Mediterranean Conference on Embedded Computing (MECO) , res.country(139,)</p> <p>Citations: N/A DOI: 10.1109/MECO.2017.7977125</p>	2017
<p>FPGA based performance analysis of multiplier policies for FIR filter</p> <p><i>Aneela Pathan Tayab Din Memon Sharmeen Keerio Imtiaz Hussain</i> 2016 International Conference on Advances in Electrical, Electronic and Systems Engineering (ICAEES), res.country(157,)</p> <p>Citations: N/A DOI: 10.1109/ICAEES.2016.7888001</p>	2016
<p>Prototype for localization of multiple fire detecting mobile robots in a dynamic environment</p> <p><i>Sanobar Farheen Memon Imtiaz Hussain Ian Grout Elfed Lewis Yasmeen Naz Panhwar</i> 2016 3rd International Conference on Computing for Sustainable Global Development (INDIACom), res.country(104,)</p> <p>Citations: N/A DOI: Nil</p>	2016
<p>Assessment of Fault Tolerance for Actively Controlled Railway Wheelset</p> <p><i>Mohammad Mirzapour T X Mei Imtiaz Hussain</i> 2012 UKACC International Conference on Control, res.country(231,)</p> <p>Citations: N/A DOI: 10.1109/CONTROL.2012.6334703</p>	2012
<p>Real Time Estimation of the Wheel-Rail Contact Conditions using Multi-Kalman Filtering and Fuzzy Logic</p> <p><i>Imtiaz Hussain T X Mei M. Mirzapour</i> International Conference on Control 2012, res.country(231,)</p> <p>Citations: N/A DOI: 10.1109/CONTROL.2012.6334713</p>	2012
<p>Multi Kalman filtering approach for estimation of wheel-rail contact conditions</p> <p><i>Imtiaz Hussain T X Mei</i> UKACC International Conference on Control 2010 , res.country(231,)</p> <p>Citations: N/A DOI: 10.1049/ic.2010.0326</p>	2010
<p>Detection of wheel-rail conditions for improved traction control</p> <p><i>T X Mei Imtiaz Hussain</i> IET Conference on Railway Traction Systems (RTS 2010), res.country(231,)</p> <p>Citations: N/A DOI: 10.1049/ic.2010.0036</p>	2010

Editorial Activities

Journal of Vibration and Control

Reviewed Papers for Journals

Impact Factor: 2.63

2023

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2022