

Muhammad Sohail Iqbal

Associate Professor

School of Electrical Engineering and Computer Science

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About

Dr. Muhammad Sohail Iqbal is working as Associate Professor in the School of Electrical Engineering and Computer Science. Dr. Muhammad Sohail Iqbal has a PhD in Surgical Robotics. Dr. Muhammad Sohail Iqbal has published 40 research articles & conference papers having a citation count of 774, carried out 4 projects and filed 0 intellectual property.

Qualifications

PhD in Surgical Robotics Université Val-de-Marne (Paris XII) , France	2005 - 2010
MPhil in Computational Mathematics Quaid-i-Azam University , Pakistan	2002 - 2004
MSc in Computational Mathematics Quaid-i-Azam University , Pakistan	2000 - 2002
BSc in Mathematics and Statistics Gomal University , Pakistan	1997 - 1999

Experience

Associate Professor School of Electrical Engineering and Computer Science	2019- Present
Assistant Professor School of Electrical Engineering and Computer Science	2015 - 2019
Assistant Professor School of Electrical Engineering and Computer Science	2012 - 2015
Assistant Professor School of Electrical Engineering and Computer Science	2011 - 2012
Lecturer COMSATS University, Wah Cantt. , Wah Cant. Rawalpindi	2003 - 2004

Awards

Gold Medal in B.Sc. Got gold medal in BSc from Gomal University by securing the highest marks in entire KPK.	2001
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Research Projects

National Projects

Design and Development Indigenous BaatGPT with AGI Applications Support (Phase-I)	2023
Funding Agency: NUST	
Amount: PKR 80,000,000.00	
Status: Completed	
Design and Development of Low Cost, Efficient and Multipurpose Haptic Feedback system for Surgical Robot	2012
Funding Agency: Ministry of Information Technology	
Amount: PKR 73,050.00	
Status: Completed	
recognition and filtering of tremor	2018
Funding Agency: IGNITE	
Amount: PKR 56,000.00	
Status: Completed	

International Projects

Industry Projects

National Projects

SiBot: A Spin-Off Company of NUST Flagship Project BaatGPT	2024
Client: NUST	
Amount: PKR 80,000,000.00	
Status: Approved_inprocess	

International Projects

Research Articles

Integrating Macroeconomic and Technical Indicators into Forecasting the Stock Market: A Data-Driven Approach	2024
Saima Latif Faheem Aslam Paulo Ferreira Muhammad Sohail Iqbal	
Economies , Volume: 13 , Issue: 1, Article Number:06	
Impact Factor: 2.1 Quartile: 2 Citations: 1	
DOI: https://doi.org/10.3390/economies13010006	
Assessing Students' Work Habits in the Era of ChatGPT at University Level in Pakistan: A Comprehensive Study	2024
Virdah Farooq Dr. Sohail Iqbal	
Journal of Xi'an Shiyou University, Natural Sciences Edition, VOLUME: 20, ISSUE: 09, Pages: 556-566	
Impact Factor: N/A	
DOI: https://www.xisdxxjsu.asia/viewarticle.php?aid=3559	
Towards efficient human-machine interaction for home energy management with seasonal scheduling using deep fuzzy neural optimizer	2023
Sakeena Javaid Nadeem Javaid Musaed Alhussein Khursheed Aurangzeb Muhammad Sohail Iqbal Muhammad Shahid Anwar	
Cognition, Technology and Work , Volume:25, Issue:2-3, Page:291-304	
Impact Factor: 2.6 Quartile: 3 Citations: 1	
DOI: 10.1007/s10111-023-00728-4	
Improving Quality of Experience Using Fuzzy Controller for Smart Homes	2022
Qurat Ul Ain Muhammad Sohail Iqbal Hamid Mukhtar	
IEEE Access , Volume:10, Page:11892-11908	
Impact Factor: 3.476 Quartile: 2 Citations: 15	
DOI: 10.1109/ACCESS.2021.3096208	
Optimal Fuzzy Energy Trading System in a Fog-Enabled Smart Grid	2021
Khuram Shahzad Muhammad Sohail Iqbal Hamid Mukhtar	
Energies , Volume 14(4), Article Number 881	
Impact Factor: 3.004 Quartile: 3 Citations: 13	
DOI: https://doi.org/10.3390/en14040881	

MedCloud: Cloud-based disease surveillance and information management system <i>Asad Waqar Malik Anis-ur-Rahman Muhammad Sohail Iqbal Paul Robert Cleary Adnan Bashir Aamer Ikram</i> <i>IEEE Access</i> , Volume 8, Pages 81271 - 81282 Impact Factor: 3.367 Quartile: 2 Citations: 4 DOI: 10.1109/ACCESS.2020.2990967	2020
Neuroscience Patient Identification using Big Data and Fuzzy Logic - An Alzheimer's Disease Case Study <i>Kamran Munir Alberto de Ramón-Fernández Muhammad Sohail Iqbal Nadeem Javaid</i> <i>Expert Systems with Applications</i> , Volume 136, Pages 410-425 Impact Factor: 5.452 Quartile: 1 DOI: 10.1016/j.eswa.2019.06.049.	2019
SecureSurgiNET: A framework for ensuring security in telesurgery <i>Muhammad Sohail Iqbal Shahzad Farooq Khuram Shahzad Asad Waqar Malik Mian Hamayun Osman Hassan</i> <i>International Journal of Distributed Sensor Networks</i> , Volume: 15 Issue: 9 Article Number: 1550147719873811 Impact Factor: 1.151 Quartile: 4 Citations: 19 DOI: 10.1177/1550147719873811	2019
Position-based emergency message dissemination for Internet of vehicles <i>Muhammad Ali Asad Waqar Malik Anis U Rahman Muhammad Sohail Iqbal Mian Hamayun</i> <i>International Journal of Distributed Sensors Network</i> , Volume: 15, Issue: 7 Impact Factor: 1.151 Quartile: 4 Citations: 47 DOI: 10.1177/1550147719861585	2019
Time Barrier based Emergency Message Dissemination in Vehicular Ad-hoc Networks <i>Syed Sarmad Shah Asad Waqar Malik ANIS U. RAHMAN Muhammad Sohail Iqbal SAMEE U. KHAN</i> <i>IEEE Access</i> , Volume: 7 Pages: 16494-16503 Impact Factor: 3.745 Quartile: 1 Citations: 85 DOI: 10.1109/ACCESS.2019.2895114	2019
IoT Operating System Based Fuzzy Inference System for Home Energy Management System in Smart Buildings <i>Qurat-ul Ain Muhammad Sohail Iqbal Safdar Abbas Khan Asad Waqar Malik Iftikhar Ahmad Nadeem Javaid</i> <i>Sensors</i> , Volume 18, Issue 9, Article Number 2802 Impact Factor: 3.031 Quartile: 1 Citations: 75 DOI: 10.3390/s18092802	2018
Energy Efficient Integration of Renewable Energy Sources in the Smart Grid for Demand Side Management <i>Nadeem Javaid Ghulam Hafeez Muhammad Sohail Iqbal Nabeel Alrajeh Mohamad Souheil Alabed Mohsen Guizani</i> <i>IEEE Access</i> , Volume: 6) Page(s): 77077-77096 Impact Factor: 4.098 Quartile: 1 Citations: 153 DOI: 10.1109/ACCESS.2018.2866461	2018
A Multi-Agent Framework for Cloud-based Management of Collaborative Robots <i>Tooba Samad Muhammad Sohail Iqbal Asad Waqar Malik Omar Arif Peter Bloodsworth</i> <i>International Journal of Advanced Robotic Systems</i> , Pages 1-13 Impact Factor: 1.223 Quartile: 4 DOI: 0.1177/1729881418785073	2018
Day Ahead Real Time Pricing and Critical Peak Pricing Based Power Scheduling for Smart Homes with Different Duty Cycles <i>Nadeem Javaid Adnan Ahmed Muhammad Sohail Iqbal Mahmood Ashraf</i> <i>Energies</i> , Volume: 11, Issue: 6, Article Number: 1464 Impact Factor: 2.707 Quartile: 3 Citations: 56 DOI: 10.3390/en11061464	2018
Energy Management With a World-Wide Adaptive Thermostat Using Fuzzy Inference System <i>Sakeena Javaid Nadeem Javaid Muhammad Sohail Iqbal Mohsen Guizani Ahmad Al-Mogren Atif Alamri</i> <i>IEEE Access</i> , Volume: 6) Page(s): 33489-33502 Impact Factor: 4.098 Quartile: 1 Citations: 13 DOI: 10.1109/ACCESS.2018.2828040	2018

Scheduling Appliances with GA, TLBO, FA, OSR and Their Hybrids Using Chance Constrained Optimization for Smart Homes <i>Zunaira Nadeem Nadeem Javaid Asad Waqar Malik Muhammad Sohail Iqbal</i> <i>Energies</i> , <i>Energies</i> 2018, 11(4), Article Number: 888 Impact Factor: 2.707 Quartile: 3 Citations: 48 DOI: 10.3390/en11040888	2018
Optimal Residential Load Scheduling Under Utility and Rooftop Photovoltaic Units <i>Ghulam Hafeez Nadeem Javaid Muhammad Sohail Iqbal Farman Ali Khan</i> <i>Energies</i> , NULL Impact Factor: 2.707 Quartile: 3 Citations: 71 DOI: 10.3390/en11030611	2018
An Efficient Demand Side Management System with a New Optimized Home Energy Management Controller in Smart Grid <i>Hafiz Majid Hussain Nadeem Javaid Muhammad Sohail Iqbal Qadeer Ul Hasan Khursheed Aurangzeb Musaed Alhussein</i> <i>Energies</i> , <i>Energies</i> 2018, 11(1), Article Number:190 Impact Factor: 2.707 Quartile: 3 Citations: 150 DOI: 10.3390/en11010190	2018
A Framework for Laparoscopic Simulations <i>Osman Hasan Muhammad Sohail Iqbal</i> <i>Journal of Pakistan Medical Association</i> , Volume 67, Issue 9, Pages 1404-1409 Impact Factor: 0.723 Quartile: 4 DOI: http://jpma.org.pk/article-details/8358	2017
Design and Control of a Haptic Enabled Robotic Manipulator <i>Muhammad Yaqoob Sardar Rushan Sher Qaisrani Muhammad Waqas Tariq Yasar Ayaz Muhammad Sohail Iqbal Sajid Nisar</i> <i>International Journal of Advanced Robotic Systems</i> , Volume12 Impact Factor: 0.615 Quartile: 4 Citations: 6 DOI: 10.5772/61039	2015
Points-based Safe Path Planning of Continuum Robots <i>Muhammad Khuram Shahzad Muhammad Sohail Iqbal Peter Bloodsworth</i> <i>International Journal of Advanced Robotic Systems</i> , <i>Sage Publications</i> , Volume 12, Article Number 12 Impact Factor: 0.615 Quartile: 4 Citations: 17 DOI: 10.5772/60857	2015
Determination of 3– RPR Planar Parallel Robot Assembly Modes by Jacobian Matrix Factorization <i>Georges Fried Karim Djouani Diane Borojeni Muhammad Sohail Iqbal</i> <i>WSEAS Transactions on Systems</i> Impact Factor: N/A DOI: Not available.	2008
An Inverse Dynamic Model of the Gough-Stewart Platform <i>Georges Fried Karim Djouani Diane Borojeni Muhammad Sohail Iqbal</i> <i>WSEAS Transactions on Systems</i> , Volume 7, Issue 2, Pages 88-99 Impact Factor: N/A DOI: N/A....	2008
One-sided Prime Ideals in Semirings <i>Muhammad Sohail Iqbal Muhammad Shabir</i> <i>Kyungpook Mathematical Journal</i> , Volume 47, Pages 473-480 Impact Factor: N/A DOI: Not available.	2007

Conference Proceedings

Automated Solution Development for Smart Grids: Tapping the Power of Large Language Models <i>Khurram Shahzad Muhammad Sohail Iqbal Muhammad Moazam Fraz</i> <i>2023 17th International Conference on Engineering of Modern Electric Systems (EMES)</i> , res.country(188,) Citations: N/A DOI: 10.1109/EMES58375.2023.10171681	2023
A Reliable Graph-Based Routing Algorithm in Residential Multi-Microgrid Systems	2022

<p><i>Muhammad Sohail Iqbal Khuram Shahzad</i> 2022 International Conference on Frontiers of Information Technology, FIT 2022, res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/FIT57066.2022.00023</p>		
<p>Enhancing Short-Term Load Forecasting using ES-dRNN with Context Vector</p> <p><i>Qurat-ul-Ain Sohail Iqbal</i> 2022 24th International Multitopic Conference, INMIC 2022, res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/INMIC56986.2022.9972954</p>		2022
<p>Fuzzy Logic based Enhanced Healthcare System for Elderly People (EHSEP)</p> <p><i>Syeda Shafia Zehra Sohail Iqbal</i> Proceedings - 22nd International Multitopic Conference, INMIC 2019, res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/INMIC48123.2019.9022789</p>		2019
<p>Automatic car braking system using fuzzy logic controller with environmental factors</p> <p><i>Syed Ali Hassan Sohail Iqbal</i> 22nd International Multitopic Conference, INMIC 2019, res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/INMIC48123.2019.9022773</p>		2019
<p>Energy Optimization in Smart Buildings using Intelligent Fuzzy Ventilation</p> <p><i>Furqan Naqvi Sohail Iqbal Qurat-ul-Ain</i> 1st International Conference on Electrical, Communication and Computer Engineering, ICECCE 2019, res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/ICECCE47252.2019.8940705</p>		2019
<p>Controlling energy consumption with the world-wide adaptive thermostat using fuzzy inference system in smart grid</p> <p><i>Sakeena Javaid Nadeem Javaid Sohail Iqbal Muhammad Junaid Mughal</i> International Conference on Information and Communication Technology Convergence (ICTC), res.country(259,)</p> <p>Citations: N/A DOI: 10.1109/ICTC.2017.8190944</p>		2017
<p>Online Education Taxonomy and Analysis to Promote Pakistani Education</p> <p><i>A. Gohar Qazi Sohail Iqbal</i> International Technology, Education and Development Conference, res.country(68,)</p> <p>Citations: N/A DOI: 10.21125/inted.2016.0578</p>		2016
<p>Analysis of Weather Forecasting Model in PRISM</p> <p><i>Asad Ahmed Adnan Rashid Sohail Iqbal</i> 12th International Conference on Frontiers of Information Technology, res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/FIT.2014.73</p>		2014
<p>Generating texture of images using efficient numerical analysis technique</p> <p><i>Sadaf Khurshid MUHAMMAD SOHAIL IQBAL Alina Mirza</i> 16th International Multi Topic Conference (INMIC), 2013, res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/INMIC.2013.6731339</p>		2013
<p>Formal Kinematic Analysis of the Two-Link Planar Manipulator</p> <p><i>Binyameen Farooq Osman Hassan Sohail Iqbal</i> Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) res.country(170,)</p> <p>Citations: N/A DOI: 10.1007/978-3-642-41202-8_23</p>		2013
<p>Deriving mechanical properties from CT scan for surgical simulation</p> <p><i>Bushra Sadia Zohaib Amjad Khan Sohail Iqbal Shamyil Bin Mansoor Muhammad Muddassir Malik</i> IEEE Region 10 Annual International Conference, Proceedings/TENCON, res.country(48,)</p> <p>Citations: N/A DOI: 10.1109/TENCON.2013.6718979</p>		2013

Multiple leaf nodes based parse trees for news fetching systems

2012

*Kashif Sattar Sohail Iqbal**2012 15th International Multitopic Conference, INMIC 2012*, res.country(177,)**Citations:** N/A**DOI:** 10.1109/INMIC.2012.6511460**Low cost tactile, force and size feedback system for surgical robotics**

2012

*Muhammad Yaqoob Sardar Rushan Qaisrani Muhammad Waqas Yasar Ayaz Muhammad Sohail Iqbal Sajid Nisar**2012 First International Conference on Innovative Engineering Systems*, res.country(65,)**Citations:** N/A**DOI:** 10.1109/ICIES.2012.6530845**A guaranteed approach for kinematic analysis of continuum robot based catheter**

2009

*Sohail Iqbal Samer Mohammed Yacine Amirat**2009 IEEE International Conference on Robotics and Biomimetics, ROBIO 2009*, res.country(48,)**Citations:** N/A**DOI:** 10.1109/ROBIO.2009.5420395

Book Chapters

Enhancing Fuzzy Controllers Using Generalized Orthogonality Principle

2012

*Nora Boumella Juan Carlos Figueroa Muhammad Sohail Iqbal*In: *Book on Fuzzy Controllers-Recent Advances in Theory and Applications*, Chapter: 16, Pages:367-384**Citations:** N/A**DOI:** <https://www.intechopen.com/chapters/39428>