

Imran Mahmood

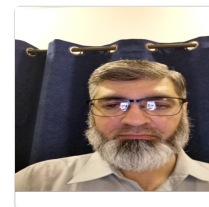
Associate Professor

School of Electrical Engineering and Computer Science

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About

Dr. Imran Mahmood is working as Associate Professor in the School of Electrical Engineering and Computer Science. Dr. Imran Mahmood has a PhD in Complex System Modeling formal verification. Dr. Imran Mahmood has published 25 research articles & conference papers having a citation count of 334, carried out 6 projects and filed 1 intellectual property.

Qualifications

PhD in Complex System Modeling formal verification Royal Institute of Technology , Sweden	2008 - 2013
MS in Agent based Modeling Royal Institute of Technology , Sweden	2006 - 2007
BS in Software Engineering Hamdard University , Pakistan	1998 - 2000

Experience

Associate Professor School of Electrical Engineering and Computer Science	2022- Present
Associate Professor School of Electrical Engineering and Computer Science	2022 - 2022
Assistant Professor School of Electrical Engineering and Computer Science	2022 - 2022
Assistant Professor School of Electrical Engineering and Computer Science	2019 - 2019
Assistant Professor School of Electrical Engineering and Computer Science	2019 - 2019
Assistant Professor School of Electrical Engineering and Computer Science	2016 - 2019
Assistant Professor School of Electrical Engineering and Computer Science	2015 - 2016
UET Lahore Lahore , 2013-04-25	2014 - 2006
Assistant Professor UET Lahore , Lahore	2013 - 2014
MS Intern Swedish Defense Research Agency , Sweden	2007 - 2007
System Incharge (HOD) Virtual University , Lahore	2003 - 2006
System Incharge (HOD) Virtual University , Lahore	2003 - 2006
System Incharge (HOD) Virtual University , Lahore	2003 - 2006

Research Projects

National Projects

MUAWIN Funding Agency: IGNITE Amount: PKR 73,150.00 Status: Completed	2019
smart waste management Funding Agency: IGNITE Amount: PKR 51,950.00 Status: Completed	2018
fe amaan - fetal monitoring and analysis to prevent miscarriages Funding Agency: IGNITE Amount: PKR 57,700.00 Status: Completed	2018
Smart Device for Non Invasive Fetal Analysis & Diagnosis (Meternal - Aid) Funding Agency: NUST Amount: PKR 300,000.00 Status: Approved_inprocess	2019
Simulation Modeling and Analysis of Household Water Consumption in Pakistan using Hybrid Approach Funding Agency: USPCASE / USAID Amount: PKR 2,900,000.00 Status: Completed	2018
Simulation Modeling, Analysis and Forecasting of Electricity generation and consumption in Pakistan using System Dynamics approach Funding Agency: USPCAS-W / USAID Amount: PKR 2,280,000.00 Status: Completed	2018

International Projects

Research Articles

FACS: A geospatial agent-based simulator for analysing COVID-19 spread and public health measures on local regions <i>Imran Mahmood Hamid Arabnejad Diana Suleimenova Derek Groen</i> <i>Journal of Simulation</i> , Volume 16, Issue 4, Pages 355-373 Impact Factor: 2.543 Quartile: 2 Citations: 36 DOI: https://doi.org/10.1080/17477778.2020.1800422	2022
Detection and Grading of Hypertensive Retinopathy Using Vessels Tortuosity and Arteriovenous Ratio <i>Sufian Al Badawi Muhammad Moazam Fraz Muhammad Shahzad Imran Mahmood Sajid Javed Emad Mosalam Ajay Kamath Nileshwar</i> <i>Journal of Digital Imaging</i> , Pages 1-21 Impact Factor: 4.056 Quartile: 1 Citations: 28 DOI: 10.1007/s10278-021-00545-z	2022
A Demand Response based solution to Overloading in Underdeveloped Distribution Networks <i>Muhammad Jibran Hasan Arshad Nasir Faran Qureshi Usman Ali Colin Jones Imran Mahmood</i> <i>IEEE Transactions on Smart Grid</i> , Volume12, Issue 5, Pages 4059-4067 Impact Factor: 10.275 Quartile: 1 Citations: 15 DOI: https://doi.org/10.1109/TSG.2021.3079959	2021
A route pruning algorithm for an automated geographic location graph construction <i>Christoph Schweimer Bernhard C. Geiger Meizhu Wang Sergiy Gogolenko Imran Mahmood Alireza Jahani Diana Suleimenova Derek Groen</i> <i>Scientific Reports</i> , Volume 11, Article Number: 11547 Impact Factor: 4.379 Quartile: 1 Citations: 6 DOI: https://doi.org/10.1038/s41598-021-90943-8	2021
ExpressionHash: Securing Telecare Medical Information Systems Using BioHashing <i>Ayesha Riaz Naveed Riaz Awais Mahmood Sajid Ali Khan Imran Mahmood Omar Almutiry Habib Dhahri</i>	2021

CMC-Computers, Materials & Continua , Volume 67, No.3, Pages 2747-2764	
Impact Factor: 3.772 Quartile: 2 Citations: 5	
DOI: 10.32604/cmc.2021.014418	
Uncertainty quantification of dynamic earthquake rupture simulations	2021
<i>Eric G. Daub Hamid Arabnejad Imran Mahmood Derek Groen</i>	
<i>Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , Volume 379, Issue , Article Number 20200076	
Impact Factor: 4.226 Quartile: 1 Citations: 1	
DOI: https://doi.org/10.1098/rsta.2020.0076	
The impact of uncertainty on predictions of the CovidSim epidemiological code	2021
<i>Wouter Edeling Hamid Arabnejad Robbie Sinclair Diana Suleimenova Krishnakumar Gopalakrishnan Derek Groen Imran Mahmood Peter V. Coveney</i>	
<i>Bartosz Bosak Daan Crommelin</i>	
<i>Nature Computational Science</i> , Volume 1, Pages 128-135	
Impact Factor: N/A	
DOI: 10.1038/s43588-021-00028	
A Water Evaluation and Planning-based framework for the long-term prediction of urban water demand and supply	2021
<i>Arfa Saleem Imran Mahmood Hessam Sarjoughian ASAD WAQAR MALIK Hasan Arshad Nasir</i>	
<i>Simulation</i> , Pages 1-23	
Impact Factor: 1.699 Quartile: 3 Citations: 18	
DOI: https://doi.org/10.1177/0037549720984250	
Modeling, simulation and forecasting of wind power plants using agent-based approach	2020
<i>Imran Mahmood Anis-ur-Rahman Mahe Mobeen Shahzad Younis Asad Waqar Malik Muhammad Moazam Fraz Kafait Ullah</i>	
<i>Journal of Cleaner Production</i> , Volume 276, Article Number 124172	
Impact Factor: 9.297 Quartile: 1 Citations: 15	
DOI: https://doi.org/10.1016/j.jclepro.2020.124172	
Dynamic Modeling and Heat Flow Study of a Thermal Power Plant Using OpenModelica	2020
<i>Hafeez Anjum Azhar-ul-Haq Imran Mehmood</i>	
<i>IEEE Access</i> , Volume 8, Pages 178614-178626	
Impact Factor: 3.367 Quartile: 2 Citations: 2	
DOI: 10.1109/ACCESS.2020.3027640	
A hierarchical multi-resolution agent-based modeling and simulation framework for household electricity demand profile	2020
<i>Imran Mahmood Quair-tul-ain Fahad Javed Jose A Aguado Hasan Arshad Nasir</i>	
<i>Simulation-Transactions of the Society for Modeling and Simulation International</i> , Volume 96, Issue 8, Pages 655-678	
Impact Factor: 1.377 Quartile: 4 Citations: 18	
DOI: https://doi.org/10.1177/0037549720923401	
Electricity supply pathways based on renewable resources: A sustainable energy future for Pakistan	2020
<i>Muhammad Shahid Kafait Ullah Kashif Imran Imran Mahmood Arshad Mahmood</i>	
<i>Journal of Cleaner Production</i> , Volume 263, Article Number 121511	
Impact Factor: 9.297 Quartile: 1 Citations: 48	
DOI: https://doi.org/10.1016/j.jclepro.2020.121511	
Sustainable vehicle-assisted edge computing for big data migration in smart cities	2020
<i>Maria Kanwal Anis-ur-Rahman Muhammad Shahzad Maria Kanwal Asad Waqar Malik Imran Mahmood</i>	
<i>IEEE Internet of Things Journal</i> , Volume: 7 , Issue: 3, Pages 1857-1871	
Impact Factor: 9.471 Quartile: 1 Citations: 14	
DOI: 10.1109/JIOT.2019.2957127	
SEECSSim: A toolkit for parallel and distributed simulations for mobile devices	2019
<i>Fahad Maqbool Asad Waqar Malik Syed Meesam Raza Nadeem Ahmed Gabriele D'Angelo Imran Mahmood</i>	
<i>Journal of Simulation</i> , Pages 1-26	
Impact Factor: 1.214 Quartile: 3 Citations: 1	
DOI: 10.1080/17477778.2019.1701958	
Optimal Management of Solid Waste in Smart Cities using Internet of Things	2019
<i>Sahar Idwan Imran Mahmood JUNAID AHMED ZUBAIRI Izzeddin Matar</i>	
<i>Wireless Personal Communications</i> , -	
Impact Factor: 1.061 Quartile: 4 Citations: 60	

DOI: 10.1007/s11277-019-06738-8

- Enabling Efficient Waste Transportation and Recycling in Smart Cities Using Internet of Things** 2019
Imran Mahmood Junaid A Zuberi
IEEE Electrification Magazine, Volume: 7, Issue: 3, Pages 33-43
Impact Factor: N/A | **Citations:** 16
DOI: 10.1109/MELE.2019.2925761
- An Integrated Modeling, Simulation and Analysis Framework for Engineering Complex Systems** 2019
Tameen Kausar Naveed Riaz Imran Mahmood Asad Waqar Malik Hessam Sarjoughian
IEEE Access, Volume 7, Pages 67497-67514
Impact Factor: 3.745 | **Quartile:** 1 | **Citations:** 27
DOI: 10.1109/ACCESS.2019.2917652
- Big Data in Motion: A Vehicle-Assisted Urban Computing Framework for Smart Cities** 2019
Murk Asad Waqar Malik Imran Mahmood Nadeem Ahmed Zahid Anwar
IEEE Access, Volume 7 Pages 55951-55965
Impact Factor: 3.745 | **Quartile:** 1 | **Citations:** 24
DOI: 10.1109/ACCESS.2019.2913150

Conference Proceedings

- Modeling Safest and Optimal Emergency Evacuation Plan for Large-scale Pedestrians Environments** 2018
Imran Mahmood Muhammad Haris Maryam Badar Muhammad Saad Qaisar Alvi
2018 Winter Simulation Conference (WSC), res.country(196,)
Citations: N/A
DOI: 10.1109/WSC.2018.8632418
- Experiments in Routing Vehicles for Municipal Services** 2018
Imran Mahmood Junaid Ahmed Zubairi Sahar Idwan Izzeddin Matar
Proceedings of The International Conference on High Performance Computing & Simulation (HPCS 2018), res.country(75,)
Citations: N/A
DOI: 10.1109/HPCS.2018.00156
- Crash Me Inside The Cloud: A Fault Resilient Framework for Discrete Event Simulation** 2017
Asad W. Malik Imran Mahmood
2017 SUMMER SIMULATION MULTI-CONFERENCE, res.country(233,)
Citations: N/A
DOI: N/A
- Analyzing Emergency Evacuation Strategies for Mass Gatherings using Crowd Simulation And Analysis framework: Hajj Scenario** 2017
Imran Mahmood Muhammad Haris Hessam Sarjoughian
2017 ACM SIGSIM Conference on Principles of Advanced Discrete Simulation, res.country(197,)
Citations: N/A
DOI: 10.1145/3064911.3064935
- Energy consumption of traditional simulation protocol over SmartPhones: an empirical study (WIP)** 2016
Asad W. Malik Imran Mahmood Aakash Parkash
Summer Computer Simulation Conference (SCSC '16), res.country(38,)
Citations: N/A
DOI: <https://dl.acm.org/citation.cfm?id=3015597>
- Verifying Dynamic Semantic Composability of BOM-Based Composed Model Using Colored Petri Nets** 2012
Dr Imran Mahmood Rassul Ayani Vladimir Vlassov Farshad Moradi
2012 ACM/IEEE/SCS 26th Workshop on Principles of Advanced and Distributed Simulation, res.country(48,)
Citations: N/A
DOI: 10.1109/PADS.2012.48
- State-machine matching in BOM based model composition** 2009
Dr Imran Mahmood Rassul Ayani Vladimir Vlassov Farshad Moradi
2009 13th IEEE/ACM International Symposium on Distributed Simulation and Real Time Applications, res.country(197,)
Citations: N/A
DOI: 10.1109/DS-RT.2009.19

Intellectual Property

Copyrights

Patents

SMART DEVICE FOR NON-INVASIVE FETAL ANALYSIS & DIAGNOSIS (MATERNAL-AID)
Status: Filed

2019

Industrial Designs

Trademarks