Muhammad Tariq Saeed

Associate Professor

School of Interdisciplinary Engineering & Sciences

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LinkedIn:

About

Dr. Muhammad Tariq Saeed is working as Associate Professor in the School of Interdisciplinary Engineering & Sciences. Dr. Muhammad Tariq Saeed has a PhD in High Performance Computing. Dr. Muhammad Tariq Saeed has published 20 research articles & conference papers having a citation count of 119, carried out 16 projects and filed 0 intellectual property.

Qualifications

PhD in High Performance Computing 2010 - 2018
NUST, Islamabad , Pakistan

MS in Information Security 2006 - 2008
NUST, Islamabad , Pakistan

BS in Computer Science 2000 - 2004
Islamia University of Bahawalpur , Pakistan

Experience

Associate Professor 2022- Present
School of Interdisciplinary Engineering & Sciences

Assistant Professor 2022 - 2018
School of Interdisciplinary Engineering & Sciences

Assistant Professor 2018 - 2022
Research Centre for Modelling & Simulation

Assistant Professor 2011 - 2022
Research Centre for Modelling & Simulation

Lecturer 2008 - 2011
Research Centre for Modelling & Simulation

Assistant Professor 2011 - 2022
NUST , H-12 Islamabad

Awards

Best Teacher Award 2018-2019

Research Projects

National Projects

Equitable Urban Heat Island Mapping: A Citizen Science Approach for Climate Justice 2024
Funding Agency: NUST
Amount: PKR 1,000,000.00
Status: Approved_inprocess

NUST Digital Twin through Advanced Modeling & Simulation 2024
Funding Agency: NUST
Amount: PKR 50,000,000.00
Status: Approved_inprocess

NUST Biomedical Data Bank (NBDB); A Roadmap to Personalized Medicine (Phase-I) 2023
Funding Agency: NUST
Amount: PKR 1,000,000.00
Status: Completed

AGILE (Artificial General Intelligence Learning Engine) 2023
Funding Agency: NUST
Amount: PKR 91,000,000.00
Status: Approved_inprocess

An Artificial Intelligence Framework for Data-Driven Analysis of Microbial Pangenomes 2022
Funding Agency: HEC
Amount: PKR 7,980,000.00
Status: Completed

City-level vulnerability to COVID pandemic: Spatio-temporal analysis of land use and land cover type effect on COVID incidences" 2022
Funding Agency: National Institute of Health (NIH), PAK
Amount: PKR 1,980,000.00
Status: Approved_inprocess

On Development of Generalized Tracks Association (GTA) & Validation, Optimization System (VOS) by Uncertainty Measurement of Multiple Sensor Tracks Data through Modeling and Simulation 2019
Funding Agency: PAF
Amount: PKR 4,979,000.00
Status: Approved_inprocess

DEVELOPMENT OF GUI INTEGRATED WITH SERVER-BASED BACKEND SATELLITE IMAGERY ANALYSIS ALGORITHMS 2019
Funding Agency: Pakistan Air Force
Amount: PKR 3,177,000.00
Status: Approved_inprocess

International Projects

Industry Projects

National Projects

Provision of Consultancy Services to M/s Infoserv360 2023
Client: InfoServ360
Amount: PKR 400,000.00
Status: Completed

Provision of Consultancy Services to Rapidev by Dr. Muhammad Tariq Saeed (Assoc Prof-SINES) 2023
Client: Rapidev
Amount: PKR 1,440,000.00
Status: Approved_inprocess

Consultancy Proposal NASTP - Alpha 2023
Client: NASTP
Amount: PKR 1,560,000.00
Status: Approved_inprocess

Development of Tracking Portal for restoration of habitats 2021
Client: Serena Hotels
Amount: PKR 1,870,000.00
Status: Approved_inprocess

Implementation of Mission Manager and Map Manager module of HSI 2021
Client: PAF
Amount: PKR 550,000.00
Status: Approved_inprocess

Implementation of Swarm-maker module 2021
Client: PAF
Amount: PKR 400,000.00
Status: Approved_inprocess

Proof of Concept Implementation of HSI 2021
Client: PAF
Amount: PKR 700,000.00
Status: Approved_inprocess

Detection and Classification of Man Made Structures 2019
Client: STG, Pakistan Air Force
Amount: PKR 600,000.00
Status: Completed

International Projects

Research Articles

Dynamics simulations of hypoxia inducible factor-1 regulatory network in cancer using formal verification techniques 2024
Hafiz Muhammad Faraz Azhar Muhammad Tariq Saeed Ishrat Jabeen
Frontiers in Molecular Biosciences, Volume 11, Article Number 1386930
Impact Factor: 3.900 | **Quartile:** 2
DOI: https://doi.org/10.3389/fmolb.2024.1386930

VacSol-ML(ESKAPE): Machine learning empowering vaccine antigen prediction for ESKAPE pathogens 2024
Samavi Nasir Farha Anwer Zaara Ishaq Muhammad Tariq Saeed Amjad Ali
Vaccine , Volume 42, Issue 22 , Article Number 126204
Impact Factor: 4.500 | **Quartile:** 2 | **Citations:** 5
DOI: https://doi.org/10.1016/j.vaccine.2024.126204

AbAMPdb: a database of Acinetobacter baumannii specific antimicrobial peptides 2024
Farha Anwer Ahmad Navid Fiza Faiz Uzair Haider Samavi Nasir Muhammad Farooq Maryam Zahra Anosh Bano Hafiza Hira Bashir Madiha Ahmad Syeda Aleena Abbas Shah E Room Muhammad Tariq Saeed Amjad Ali
Database : The Journal of Biological Databases and Curation, Volume:2024, Article Number: baae096, Pages: 15
Impact Factor: 3.4 | **Quartile:** 1 | **Citations:** 2
DOI: https://doi.org/10.1093/database/baae096

Modelling and analysis of the complement 2 system signalling pathways: Roles of C3, 3 C5a and pro-inflammatory cytokines in 4 SARS-CoV-2 infection 2023

Didar Murad Rehan Zafar Paracha Muhammad Tariq Saeed Jamil Ahmad Ammar Mushtaq Maleeha Humayun

PeerJ , Vol:11, Articel Number: e15794

Impact Factor: 2.7 | **Quartile:** 2 | **Citations:** 1

DOI: 10.7717/peerj.15794

System Level Modeling and Analysis of TNF-α mediated Sphingolipid Signaling Pathway in Neurological Disorders for the Prediction of Therapeutic Targets 2022

Sanam Banarus Rehan Zafar Paracha Maryum Nisar Jamil Ahmad Muhammad Tariq Saeed Zartasha Mustansar Malik N Shuja Ayesha Arif

Frontiers in Physiology, Volume 13

Impact Factor: 4.755 | **Quartile:** 1 | **Citations:** 7

DOI: doi: 10.3389/fphys.2022.872421

Decoding the Role of Epigenetics in Breast Cancer Using Formal Modeling and Machine-Learning Methods 2022

Ayesha Asim Yusra Sajid Kiani Muhammad Tariq Saeed Ishrat Jabeen

Frontiers in Molecular Biosciences, Volume 9, Article Number 882738

Impact Factor: 6.113 | **Quartile:** 1

DOI: doi: 10.3389/fmolb.2022.882738

A Map-Based Recommendation System and House Price Prediction Model for Real Estate 2022

Maryam Mubarak Ali Tahir Fizza Waqar Ibraheem Haneef Gavin McArdle Michel Bertolotto Muhammad Tariq Saeed

ISPRS International Journal of Geo-Information, Volume 11, Issue 3, Article Number 178

Impact Factor: 2.899 | **Quartile:** 2 | **Citations:** 8

DOI: https://doi.org/10.3390/ijgi11030178

Reinforcement learning-based radar-evasive path planning: a comparative analysis 2022

Adnan Maqsood Rizwan Riaz Rana Umair Hameed Ali Javed Hashmi Muhammad Tariq Saeed

Aeronautical Journal , Volume 126, Issue 1297, Pages 547-564

Impact Factor: 0.818 | **Quartile:** 4 | **Citations:** 10

DOI: https://doi.org/10.1017/aer.2021.85

Genomic Investigation of Methicillin-Resistant Staphylococcus aureus ST113 Strains Isolated from Tertiary Care Hospitals in Pakistan 2021

Nimat Ullah Hamza Arshad Dar Kanwal Naz Saadia Andleeb Abdur Rahman Fazal Hanan Taeok Bae Amjad Ali Muhammad Tariq Saeed

Antibiotics-Basel , Volume 10(9), Article Number 1121

Impact Factor: 4.639 | **Quartile:** 2 | **Citations:** 9

DOI: https://doi.org/10.3390/antibiotics10091121

Biological Regulatory Network (BRN) Analysis and Molecular Docking Simulations to Probe the Modulation of IP3R Mediated Ca2+ Signaling in Cancer 2020

Humaira Ismatullah Ishrat Jabeen Muhammad Tariq Saeed

Genes , Volume 12(1), Article Number 34

Impact Factor: 4.096 | **Quartile:** 2 | **Citations:** 7

DOI: https://doi.org/10.3390/genes12010034

Formal model of the interplay between TGF-β1 and MMP-9 and their dynamics in hepatocellular carcinoma 2019

Shifa Tariq Ashraf Ayesha Obaid Muhammad Tariq Saeed Anam Naz Fatima Shahid Jamil Ahmad Amjad Ali

Mathematical Bio sciences and Engineering, Volume 16, Issue 5, Pages 3285–3310

Impact Factor: 1.313 | **Quartile:** 4 | **Citations:** 9

DOI: 10.3934/mbe.2019164

Parameter estimation of qualitative biological regulatory networks on high performance computing hardware 2018

Muhammad Tariq Saeed Jamil Ahmad Jan Baumbach Josch Pauling Aamir Shaf Rehan Zafar Paracha Asad Hayat Amjad Ali

BMC Systems Biology , Volume 12, Article Number 146

Impact Factor: 2.048 | **Quartile:** 2 | **Citations:** 6

DOI: 10.1186/s12918-018-0670-y

Multicore and GPU based Pupillometry using Parabolic and Elliptic Hough Transform 2017

Amnah Nasim Adnan Maqsood Tariq Saeed

International Journal of Mechanical Engineering and Robotics Research, NULL

Impact Factor: 0 | **Citations:** 3

DOI: 10.18178/ijmerr.6.5.425-433

Formal modeling of mTOR Associated biological regulatory network reveals novel therapeutic strategy for the treatment of cancer 2017

Zurah Bibi Jamil Ahmad Amnah Siddiqa Rehan Zafar Paracha Tariq Saeed Amjad Ali Hussnain Ahmed Janjua Shakir Ullah Emna Ben Abdallah Olivier Roux

Frontiers in Physiology, Volume: 8, Article Number 416

Impact Factor: 3.394 | **Quartile:** 1 | **Citations:** 5

DOI: 10.3389/fphys.2017.00416

Formal modeling and analysis of the hexosamine biosynthetic pathway: role of O-linked N-acetylglucosamine transferase in oncogenesis and cancer progression 2016

Rehan Zafar Paracha Muhammad Tariq Saeed Jamil Ahmed Shahzina Kanwal Andreana N. Holowatyj Iftikhar A. Sheikh Muhammad Aamir Shafi Amnah Siddiqa Zurah Bibi Mukaram Khan Amjad Ali

PeerJ, Volume 4, Article Number e2348

Impact Factor: 2.177 | **Quartile:** 2 | **Citations:** 15

DOI: 10.7717/peerj.2348

On the real time modeling of interlocking system of passenger lines of Rawalpindi Cantt train station 2016

Umar Khan Jamil Ahmad Tariq Saeed Sikandar Hayat Mirza

Complex Adaptive Systems Modeling, Vol.4, No.1, Pages 1-33

Impact Factor: 0 | **Citations:** 12

DOI: 10.1186/s40294-016-0028-5

On the modelling and analysis of the regulatory network of dengue virus pathogenesis and clearance 2014

Amjad ali Babar Aslam Jamil Ahmad Rehan Zafar Paracha Samar Hayat Khan Tareen Umar Niazi Tariq Saeed

Computational Biology and Chemistry, Volume: 53 Pages: 277-291 Part: B

Impact Factor: 1.117 | **Quartile:** 3 | **Citations:** 19

DOI: 10.1016/j.compbiolchem.2014.10.003

Conference Proceedings

Automatic Tree Counting from Satellite Imagery Using YOLO V5, SSD and UNET Models: A case study of a campus in Islamabad, Pakistan 2023

Um-e-Hani Shahzad Younis Sadia Munir Tariq Saeed Hamad Younis

3rd IEEE International Conference on Artificial Intelligence, ICAI 2023, res.country(177,)

Citations: N/A

DOI: 10.1109/ICAI58407.2023.10136679

Formal Modeling of the Key Determinants of Hepatitis C Virus (HCV) Induced Adaptive Immune Response Network: An Integrative Approach to Map the Cellular and Cytokine-Mediated Host Immune Regulations 2018

Ayesha Obaid Anam Naz Shifa T. Ashraf Faryal M. Awan Aqsa Ikram Tariq Saeed Abida Raza Jamil Ahmed Amjad Ali

International Conference on Computational Science and Its Applications, ICCSA 2018, res.country(13,)

Citations: 1

DOI: https://doi.org/10.1007/978-3-319- 95171-3_50

On the Use of Betweenness Centrality for Selection of Plausible Trajectories in Qualitative Biological Regulatory Networks 2018

Muhammad Tariq Saeed Jamil Ahmed Amjad Ali

6th International Conference on Bioinformatics and Biomedical Engineering, IWBBIO 2018, res.country(68,)

Citations: N/A

DOI: https://doi.org/10.1007/978-3-319-78723-7_47