

Saad Bin Qaisar

Associate Professor

School of Electrical Engineering and Computer Science

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About

Dr. Saad Bin Qaisar is working as Associate Professor in the School of Electrical Engineering and Computer Science. Dr. Saad Bin Qaisar has a PhD in Electrical Engineering (Communications). Dr. Saad Bin Qaisar has published 47 research articles & conference papers having a citation count of 2075, carried out 3 projects and filed 1 intellectual property.

Qualifications

PhD in Electrical Engineering (Communications)	2004 - 2009
Michigan State University , United States	
MS in Electrical Engineering	2003 - 2005
Michigan State University , United States	
BS in Electrical Engineering	1999 - 2003
NUST, Islamabad , Pakistan	

Experience

Associate Professor	2020- Present
School of Electrical Engineering and Computer Science	
Associate Professor	2015 - 2020
School of Electrical Engineering and Computer Science	
Associate Professor	2015 - 2015
School of Electrical Engineering and Computer Science	
Assistant Professor	2012 - 2015
School of Electrical Engineering and Computer Science	
Assistant Professor	2009 - 2012
School of Electrical Engineering and Computer Science	
Associate Professor	2009 - 2022
NUST , NUST H12	

Awards

NUST Best Researcher 2012	2015
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Professional Memberships

IEEE	Since 2004
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Research Projects

National Projects

Establishment of Core Communication and Networks Research

2009

Funding Agency: NUST

Amount: PKR 1,647,000.00

Status: Completed

Software Defined Wide Area Network Research (PPCR)

2018

Funding Agency: HEC

Amount: PKR 370,000.00

Status: Approved_inprocess

Automated Tele-Micromanipulator Cell Injection System

2016

Funding Agency: IGNITE

Amount: PKR 39,997,000.00

Status: Completed

International Projects

Research Articles

Mode selection, caching and physical layer security for fog networks

2022

Rabeea Basir Naveed Ahmed Chughtai Saad Bin Qaisar Mudassar Ali Anas Hashmi

Bulletin of the Polish Academy of Sciences: Technical Sciences, Volume 70, Issue 5, Article Number e142652

Impact Factor: 1.515 | **Quartile:** 3 | **Citations:** 3

DOI: 10.24425/bpasts.2022.142652

Energy efficient resource allocation in cache-enabled fog networks

2021

Rabeea Basir Saad Bin Qaisar Mudassar Ali Muhammad Naeem Alagan Anpalagan

Transactions on Emerging Telecommunication Technologies, Article Number e4343, Pages 1-16

Impact Factor: 3.310 | **Quartile:** 2 | **Citations:** 3

DOI: <http://doi.org/10.1002/ett.4343>

Cloudlet Selection in Cache-Enabled Fog Networks for Latency Sensitive IoT Applications

2021

Rabeea Basir Saad Bin Qaisar Mudassar Ali Muhammad Naeem

IEEE Access, Volume 9, Pages 93224-93236

Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 9

DOI: 10.1109/ACCESS.2021.3092819

Client-Centric Access Device Selection for Heterogeneous QoS Requirements in Beyond 5G IoT Networks

2020

Muhammad Asad Saad Bin Qaisar basit khan

IEEE Access, Volume 8, Pages 219820-219836

Impact Factor: 3.367 | **Quartile:** 2 | **Citations:** 15

DOI: 10.1109/ACCESS.2020.3042522

Beyond 5G: Hybrid End-to-End Quality of Service Provisioning in Heterogeneous IoT Networks

2020

Muhammad Asad Saad Qaisar Mudassar Ali Basit Khan

IEEE Access, Volume 8, Pages 192320-192338

Impact Factor: 3.367 | **Quartile:** 2 | **Citations:** 30

DOI: 10.1109/ACCESS.2020.3032704

Combinatorial resource allocation in D2D assisted heterogeneous relay networks

2020

Saad Bin Qaisar Mudassar Ali Muhammad Naeem Shahid Mumtaz Joel J.P.C. Rodrigues

Future Generation Computer Systems, Volume 107, Pages 956-964

Impact Factor: 7.187 | **Quartile:** 1 | **Citations:** 11

DOI: 10.1016/j.future.2017.08.012

Placement Optimization for Renewable Energy Sources: Ontology, Tools and Wake Models

2020

Mudassar Ali Saad Bin Qaisar Mudassar Ali Muhammad Yousaf Khan Muhammad Naeem Chrysostomos Chrysostomou Muhammad Iqbal

IEEE Access, Volume: 8, Pages 72781-72800

Impact Factor: 3.367 | **Quartile:** 2 | **Citations:** 11

DOI: DOI: 10.1109/ACCESS.2020.2984901

Fog Computing Enabling Industrial Internet of Things: State-of-the-Art and Research Challenges	2019
<i>Saad Bin Qaisar Rabeea Basir Mudassar Ali Monther AlDhwairi Muhammad Ikram Ashraf Aamir Mahmood Mikael Gidlund</i> <i>Sensors</i> , Volume 19, Issue 21, Article 4807	
Impact Factor: 3.275 Quartile: 1 Citations: 112	
DOI: 10.3390/s19214807	
Interconnecting Networks with Optimized Service Provisioning	2019
<i>Basit Khan Saad Bin Qaisar Mudassar Ali Muhammad Naeem Marc Bruyere Joel J. P. C. Rodrigues</i> <i>Telecommunication System</i> , -	
Impact Factor: 1.734 Quartile: 3 Citations: 7	
DOI: 10.1007/s11235-019-00606-3	
Node Selection and Utility Maximization for Mobile Edge Computing Driven IoT	2019
<i>Mudassar Ali Nida Riaz Saad Qaisar</i> <i>Transactions on Emerging Telecommunications Technologies</i> , Article Number e3704	
Impact Factor: 1.594 Quartile: 3 Citations: 9	
DOI: 10.1002/ett.3704	
Fog-Assisted SDN Controlled Framework for Enduring Anomaly Detection in an IoT Network	2018
<i>Qaisar Shafi Saad bin Qaisar Ian Welch Abdul Basit Abigail Koay</i> <i>IEEE Access</i> , NULL	
Impact Factor: 4.098 Quartile: 1	
DOI: https://www.researchgate.net/publication/329330056_Fog-Assisted_SDN_Controlled_Framework_for_Enduring_Anomaly_Detection_in_an_IoT_Network	
Resource allocation for licensed and unlicensed spectrum in 5G heterogeneous networks	2018
<i>Mudassar Ali Saad Bin Qaisar Muhammad Naeem Joel J. P. C. Rodrigues Farhan Qamar</i> <i>Transactions on Emerging Telecommunications Technologies</i> , Volume 29, Issue 10, Article Number e3299	
Impact Factor: 1.258 Quartile: 4 Citations: 12	
DOI: https://onlinelibrary.wiley.com/doi/full/10.1002/ett.3299	
Joint Cloudlet Selection and Latency Minimization in Fog Networks	2018
<i>Mudassar Ali Nida Riaz Muhammad Ikram Ashraf Saad Bin Qaisar Muhammad Naeem</i> <i>IEEE Transactions on Industrial Informatics</i> , NULL	
Impact Factor: 7.377 Quartile: 1	
DOI: https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8345659	
Energy Efficient Resource Allocation for Energy Harvesting Aided H-CRAN	2018
<i>Mudassar Ali Saad Qaisar Muhammad Imran Muhammad Naeem Farhan Qamar Naveed Ahmed Chughtai</i> <i>IEEE Access</i> , Volume 6, Pages 43990-44001	
Impact Factor: 4.098 Quartile: 1 Citations: 29	
DOI: 10.1109/ACCESS.2018.2862920	
SimpliMote: A Wireless Sensor Network Monitoring Platform for Oil and Gas Pipelines	2018
<i>Salman Ali Adnan Ashraf Muhammad Kamran Afridi Husnain Saeed Sidra Rashid Saad Bin Qaisar</i> <i>IEEE Systems Journal</i> , Volume 12, Issue 1, Pages 778-789	
Impact Factor: 4.463 Quartile: 1 Citations: 60	
DOI: 10.1109/JSYST.2016.2597171	
A WSN for Monitoring and Event Reporting in Underground Mine Environments	2018
<i>Umar Ibrahim Minhas Ijaz Haider Naqvi Saad Bin Qaisar Kamran Ali Saleem Shahid Muhammad Awais Aslam</i> <i>IEEE Systems Journal</i> , NULL	
Impact Factor: 4.463 Quartile: 1	
DOI: https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7827994	
Classification and Legality Analysis of Bowling Action in the Game of Cricket	2017
<i>Saad Bin Qaisar Muhammad Salman Ali Mustafa Qamar</i> <i>Data Mining and Knowledge Discovery</i> , Volume 31, Issue 6, Pages 1706-1734, Special Issue SI	
Impact Factor: 2.481 Quartile: 2 Citations: 20	
DOI: 10.1007/s10618-017-0511-4	
Smart heterogeneous networks: a 5G paradigm	2017
<i>Saad Bin Qaisar Mudassar Ali Shahid Mumtaz Muhammad Naeem</i> <i>Telecommunication Systems</i> , Volume: 66 Issue: 2 Pages: 311-330	
Impact Factor: 1.527 Quartile: 3 Citations: 19	

DOI: 10.1007/s11235-017-0291-6	
Joint User Association, Power Allocation, and Throughput Maximization in 5G H-CRAN Networks <i>Saad Bin Qaisar Mudassar Ali Quratulain Rabbani Muhammad Naeem Farhan Qamar</i> <i>IEEE Transactions on Vehicular Technology</i> , Volume 66, Issue 10, Pages 9254-9262 Impact Factor: 4.432 Quartile: 1 Citations: 46 DOI: 10.1109/TVT.2017.2715229	2017
SDN Orchestration for Next Generation Inter-Networking: A Multipath Forwarding Approach <i>Saad Bin Qaisar Abdul Basit Syed Hamid Rasool Mudassar Ali</i> <i>IEEE Access</i> , Volume 5, Pages 13077-13089 Impact Factor: 3.557 Quartile: 1 Citations: 17 DOI: 10.1109/ACCESS.2017.2683943	2017
A Performance Simulation Tool for the Analysis of Data Gathering in Both Terrestrial and Underwater Sensor Networks <i>Saad Bin Qaisar Mukhtar Ghaleb Emad Felemban Shamala Subramaniam Adil A. Sheikh</i> <i>IEEE Access</i> , Volume 5, Pages 4190-4208 Impact Factor: 3.557 Quartile: 1 Citations: 17 DOI: 10.1109/ACCESS.2017.2684539	2017
Internet of Things (IoT) in 5G Wireless Communications <i>Waleed Ejaz Alagan Anpalagan Muhammad Ali Imran Minho Jo Muhammad Naeem Saad Bin Qaiser Wei Wang</i> <i>IEEE Access</i> , Volume 4, Pages 10310-10314 Impact Factor: 3.244 Quartile: 1 Citations: 151 DOI: DOI:10.1109/ACCESS.2016.2646120	2016
Joint Admission Control, Mode Selection and Power Allocation in D2D Communication Systems <i>Muhammad Azam Mushtaq Ahmad Muhammad Naeem Muhammad Iqbal Ahmed Shaharyar Khwaja Alagan Anpalagan Saad Qaisar</i> <i>IEEE Transactions on Vehicular Technology</i> , Volume 65, Issue 9, Pages 7322-7333 Impact Factor: 4.066 Quartile: 1 Citations: 48 DOI: 10.1109/TVT.2015.2487220	2016
Energy Efficient Resource Allocation in D2D-Assisted Heterogeneous Networks with Relays <i>MUDASSAR ALI SAAD QAISAR MUHAMMAD NAEEM SHAHID MUMTAZ</i> <i>IEEE Access</i> , Volume 4, Pages 4902-4911 Impact Factor: 3.244 Quartile: 1 DOI: 0.1109/ACCESS.2016.2598736	2016
A compendium of optimization objectives, constraints, tools and algorithms for energy management in microgrids <i>Saad Bin Qaisar Aftab Ahmad Khan Muhammad Naeem Muhammad Iqbal Alagan Anpalagan</i> <i>Renewable & Sustainable Energy Reviews</i> , Volume 58, Pages 1664-1683 Impact Factor: 8.050 Quartile: 1 Citations: 229 DOI: 10.1016/j.rser.2015.12.259	2016
RF Path and Absorption Loss Estimation for Underwater Wireless Sensor Networks in Different Water Environments <i>Umair Mujtaba Qureshi Faisal Karim Shaikh Zuneera Aziz Syed M. Zafi S. Shah Adil A. Sheikh Emad Felemban Saad Bin Qaisar</i> <i>Sensors</i> , Volume 16, Issue 6 Impact Factor: 2.677 Quartile: 1 Citations: 120 DOI: 10.3390/s16060890	2016
Underwater Sensor Network Applications: A Comprehensive Survey <i>Saad Bin Qaisar Emad Felemban Faisal Karim Shaikh Umair Mujtaba Qureshi Adil A. Sheikh</i> <i>International Journal of Distributed Sensor Networks</i> , Article Number 896832 Impact Factor: 0.906 Quartile: 3 Citations: 369 DOI: 10.1155/2015/896832	2015
Duality Between the Improved Rate Regions of Gaussian Multiple Access and Broadcast Channel for Discrete Constellations <i>Saad Bin Qaisar Iram Abdur Rehman Rizwan Ghaffar</i> <i>Wireless Personal Communications</i> , Volume 84, Issue 4, Pages 2397-2415 Impact Factor: 0.701 Quartile: 4 DOI: 10.1007/s11277-015-2711-9	2015

One-Class Support Vector Machines: Analysis of Outlier Detection for Wireless Sensor Networks in Harsh Environments <i>Saad Bin Qaisar Nauman Shahid Ijaz Haider Naqvi</i> <i>Artificial Intelligence Review</i> , Volume 43, Issue 4, Pages 515-563 Impact Factor: 1.731 Quartile: 2 Citations: 60 DOI: 10.1007/s10462-013-9395-x	2015
Network Challenges for Cyber Physical Systems with Tiny Wireless Devices: A Case Study on Reliable Pipeline Condition Monitoring <i>Saad Bin Qaisar Salman Ali Husnain Saeed Muhammad Farhan Khan Muhammad Naeem Alagan Anpalagan</i> <i>Sensors</i> , Volume 15, Issue 4, Pages 7172-7205 Impact Factor: 2.033 Quartile: 1 Citations: 105 DOI: 10.3390/s150407172	2015
Characteristics and classification of outlier detection techniques for wireless sensor networks in harsh environments: a survey <i>Saad Bin Qaisar Nauman Shahid Ijaz Haider Naqvi</i> <i>Artificial Intelligence Review</i> , Volume 43, Issue 2, Pages 193-228 Impact Factor: 1.731 Quartile: 2 Citations: 84 DOI: 10.1007/s10462-012-9370-y	2015
A Survey on Current Underwater Acoustic Sensor Network Applications <i>Mohsin Murad Adil A. Sheikh Muhammad Asif Manzoor Emad Felemban Saad Bin Qaisar</i> <i>International Journal of Computer Theory and Engineering</i> , Volume 7(1), Pages 51-56 Impact Factor: - DOI: DOI:10.7763/IJCTE.2015.V7.929	2015
Detection and self-healing of cluster breakages in mines and tunnels: an empirical investigation <i>Saad Bin Qaisar Muhammad Yousaf Khan Muhammad Naeem Awais Aslam Saleem Shahid Ijaz Naqvi</i> <i>Sensors Review</i> , Volume 35, Issue 3, Pages 263-273 Impact Factor: 0.898 Quartile: 3 Citations: 4 DOI: 10.1108/SR-08-2014-0684	2015
SVM Based Event Detection and Identification: Exploiting Temporal Attribute Correlations Using SensGru <i>Saad Bin Qaisar Nauman Shahid Ijaz Haider Naqvi</i> <i>Mathematical Problems in Engineering</i> , Article Number 259508 Impact Factor: 0.762 Quartile: 3 DOI: 10.1155/2014/259508	2014
Dimensioning of linear and hierarchical wireless sensor networks for infrastructure monitoring with enhanced reliability <i>Saad Bin Qaisar Salman Ali Emad A. Felemban</i> <i>KSII Transactions on Internet and Information Systems</i> , Volume 8, Issue 9, Pages 3034-3055 Impact Factor: 0.561 Quartile: 4 Citations: 2 DOI: 10.3837/tiis.2014.09.005	2014
A Method for Distributed Pipeline Burst and Leakage Detection in Wireless Sensor Networks Using Transform Analysis <i>Saad Bin Qaisar Sidra Rashid Husnain Saeed Emad Felemban</i> <i>International Journal of Distributed Sensor Networks</i> , Article Number 939657 Impact Factor: 0.665 Quartile: 4 Citations: 47 DOI: https://journals.sagepub.com/doi/abs/10.1155/2014/939657	2014
A hidden Markov model for detection and classification of arm action in Cricket <i>Saad Bin Qaisar SAHAR IMTIAZ FATMA FARUQ AMNA JAMAL WAFI IQBAL PAUL GLAZIER SUNGYOUNG LEE</i> <i>Journal of Mobile Multimedia</i> , Volume 9, No.1&2 Impact Factor: 0 DOI: 10.5555/2600433.2600443	2013
Compressive Sensing: From Theory to Applications, a Survey <i>Saad Bin Qaisar Rana Muhammad Bilal Wafa Iqbal Muqaddas Naureen Sungyoung Lee</i> <i>Journal of Communication and Network</i> , Volume 15, Issue 5, Pages 443-456 Impact Factor: 0.747 Quartile: 3 Citations: 405 DOI: 10.1109/JCN.2013.000083	2013

An Energy Efficient Cooperative Hierarchical MIMO Clustering Scheme for Wireless Sensor Networks	2012
<i>Saad Bin Qaisar Mehwish Nasim Sungyoung Lee</i>	
<i>Sensors</i> , Volume 12, Issue 1, Pages 92-114	
Impact Factor: 1.953 Quartile: 1 Citations: 17	
DOI: 10.3390/s120100092	

Conference Proceedings

Deep Reinforcement Learning based Resource Optimization in HCRAN	2025
<i>Naveed Ahmad Chughtai Muhammad Imran Mudassar Ali Saad Bin Qaisar</i>	
<i>2025 International Conference on Communication Technologies, ComTech 2025</i> , res.country(177,)	
Citations: N/A	
DOI: 10.1109/ComTech65062.2025.11034425	
Latency-Aware Resource Allocation in Green Fog Networks for Industrial IoT Applications	2020
<i>Rabeea Basir Saad Qaisar Mudassar Ali Muhammad Naeem Kishor Chandra Joshi Jonathan Rodriguez Rabeea Basir Saad Qaisar Mudassar Ali Muhammad Naeem Kishor Chandra Joshi Jonathan Rodriguez</i>	
<i>IEEE International Conference on Communications Workshops (ICC Workshops)</i> , res.country(101,)	
Citations: N/A	
DOI: https://2020.ieee-icc-virtual.org/presentation/workshop/latency-aware-resource-allocation-green-fog-networks-industrial-iot	
Resource Allocation and Throughput Optimization for IoT Real-Time Applications	2020
<i>Rabeea Basir Saad Bin Qaisar Haris Pervaiz Mudassar Ali Muhammad Naeem Muhammad Ali Imran Rabeea Basir Saad Bin Qaisar Haris Pervaiz Mudassar Ali Muhammad Naeem Muhammad Ali Imran</i>	
<i>IEEE 91st Vehicular Technology Conference (VTC2020-Spring)</i> , res.country(20,)	
Citations: N/A	
DOI: https://doi.org/10.1109/VTC2020-Spring48590.2020.9129613	
Energy Efficiency Maximization in Green Energy Aided Heterogeneous Cloud Radio Access Networks	2020
<i>Muhammad Imran Naveed Ahmad Chughtai Mudassar Ali Saad Qaisar Muhammad Naeem Muhammad Imran Naveed Ahmad Chughtai Mudassar Ali Saad Qaisar Muhammad Naeem Muhammad Imran Naveed Ahmad Chughtai Mudassar Ali Saad Qaisar Muhammad Naeem</i>	
<i>IEEE 91st Vehicular Technology Conference (VTC2020-Spring)</i> , res.country(20,)	
Citations: N/A	
DOI: 10.1109/VTC2020-Spring48590.2020.9128743	
Evaluating HTTP Adaptive Streaming Algorithms Under Parallel TCP Connections	2019
<i>Saad Qaisar Syed Hamid Rasool Abdul Basit</i>	
<i>19th International Conference on Computational Science and Applications</i> , res.country(190,)	
Citations: N/A	
DOI: 10.1007/978-3-030-24305-0_44	
Electronic Design of a Semi-Automated Micromanipulator Cell Injection System	2018
<i>A. Hameed N. Kamal Saad Bin Qaiser Osman Hasan N. Jalal</i>	
<i>2018 12th International Symposium on Medical Information and Communication Technology (ISMICT)</i> , res.country(13,)	
Citations: N/A	
DOI: 10.1109/ISMICT.2018.8573730	
Joint User Association and Power Allocation for Licensed and Unlicensed Spectrum in 5G Networks	2017
<i>SAAD BIN QAISER</i>	
<i>IEEE Globecom</i> , res.country(197,)	
Citations: N/A	
DOI: 10.1109/GLOCOM.2017.8254050	

Book Chapters

Performance Analysis of UAV-Enabled Disaster Recovery Networks	2021
<i>Rabeea Basir Mudassar Ali Naveed Ahmad Chughtai Saad Bin Qaisar Muhammad Ali Imran Anas Hashmi</i>	
In: <i>Book on Autonomous Airborne Wireless Networks</i> , Chapter 9, Pages 157-194	
Citations: 4	
DOI: https://doi.org/10.1002/9781119751717.ch9	

Editorial Activities

Edited Journal Issue / Proceeding / Book Impact Factor: 4.098	2019
Edited Journal Issue / Proceeding / Book	2019
Edited Journal Issue / Proceeding / Book	2019
Edited Journal Issue / Proceeding / Book	2019
Edited Journal Issue / Proceeding / Book	2019
Reviewed Papers for Journals	2019
Edited Journal Issue / Proceeding / Book	2018
Edited Journal Issue / Proceeding / Book	2018
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Edited Journal Issue / Proceeding / Book	2018
Edited Journal Issue / Proceeding / Book	2018
Edited Journal Issue / Proceeding / Book	2018
Edited Journal Issue / Proceeding / Book	2018
Edited Journal Issue / Proceeding / Book	2018
Edited Journal Issue / Proceeding / Book	2018
Edited Journal Issue / Proceeding / Book Impact Factor: 3.55	2017
Reviewed Papers for Journals Impact Factor: 3.9	2017
Editor in Chief of Journal Impact Factor: 3.55	2017
Editor in Chief of Journal Impact Factor: 4.098	2017
Edited Journal Issue / Proceeding / Book	1970

Intellectual Property

Copyrights

Patents

Micromanipulator Cell Injection System
Status: Filed

2019

Industrial Designs

Trademarks