

Prof. Mukhtaj Khan
Dean, Faculty of IT and Numerical Sciences
The University of Haripur

Email: mukhtaj.khan@uoh.edu.pk , muhtaj@yahoo.com

Cell No: 03449575990, 03485597926

Academic Profile

I am currently serving as Professor and Dean, Faculty of Information Technology & Numerical Sciences at the University of Haripur. I have obtained MS degree from Staffordshire University, UK, in the field of Mobile Computing and PhD degree from Brunel University, UK in the field of Big Data Analytics and Distributed Computing. With over 21 years of professional experience spanning teaching, research, industry, and academic administration, I have developed strong expertise in both technical and leadership domains. My international experience, particularly in the United Kingdom, has enriched my knowledge and strengthened my research and pedagogical skills. I have taught a wide range of undergraduate and postgraduate courses, including Database Systems, Advanced Programming, Parallel Computing, Big Data Analytics, Computer Networks, and Machine Learning. In addition to my academic contributions, I serve as an Academic Editor for impact factor journals and as a reviewer for several reputed international journals. I have presented my research at prestigious international conferences in countries such as the UK and China. My research portfolio includes over 45 publications in high-impact journals (with a cumulative impact factor exceeding 100) and several book chapters published by Springer.

Professional Experience

I have over 21 years of professional experience in both academia and industry, serving in various roles as an IT expert and faculty member since June 2000. I have held several academic and administrative positions, including Assistant Professor and Head of the Department of Computer Science at Abdul Wali Khan University Mardan, Assistant Professor and IT Manager at HITEC University Taxila, Pakistan and Professor, Chairman department of IT, Dean Faculty of IT & Numerically Sciences and Director of IT at the University of Haripur. In addition to my academic experience, I have also worked internationally in the United Kingdom in multiple technical and research capacities such as a Programmer at Stafflink Midlands UK, a Data Analyst at Synectic Solutions Ltd UK, and as a Graduate Teaching Assistant and Research Assistant at Brunel University London.

Postdoctoral Fellowship

I served as a Postdoctoral Fellow in the Departments of Electronics and Computer Engineering, College of Engineering, Design and Physical Sciences, at Brunel University London from 13 March 2015 to 30 January 2016. During this period, I worked on a project titled “Developing

Scalable Smart Grid Infrastructure to Enable Secure Transmission System Control,” funded by the Engineering and Physical Sciences Research Council (EPSRC) and the National Natural Science Foundation of China (NSFC). The project consortium included Brunel University London, Tsinghua University (China), and Sichuan University (China). My primary responsibilities included developing scalable tools and platforms for large-scale smart grid data storage and analysis. In addition, I organized and participated in several workshops held in the UK and China (at Tsinghua University and Sichuan University). I was also actively involved in the preparation of the project’s final report.

Administrative Responsibilities

- Dean Faculty of Information Technology & Numerical Sciences
- Chairman Department of Information Technology, the University of Haripur
- Head of Department of Computer Science, Abdul Wali Khan University Mardan
- IT Director / Manager, Abdul Wali Khan University Mardan
- IT Manager, HITEC University Taxila

Member / Convener of Committees

- Convener of Board of Study Committee (at Abdul Wali Khan University and the University of Haripur)
- Member of Selection Board Committee (Women University Mardan)
- Convener of Graduate Study Committee (at Abdul Wali Khan University Mardan)
- Convener of Graduate Research Committee (at the University of Haripur)
- Member of Faculty Equivalency Committee (at Abdul Wali Khan University Marda)
- Member of MS/PhD Student Review Committee (at Abdul Wali Khan University Marda)
- Member of ASRB Committee (at the University of Haripur)
- Member of Appellate Committee (at the University of Haripur)
- Member of Inspection Committee for the affiliated College (at the University of Haripur)
- Member of Formulation of National Electronics Policy 2021
- Convener of Student Welfare Fund Committee (at the University of Haripur)
- Member of ERP advisory Committee (at the University of Haripur)
- Convener of Fee Revision Committee (at the University of Haripur)
- Convener of Semester Implementation and Monitoring Committee (at the University of Haripur)
- Convener of DTRC committee at the University of Haripur
- Member of TTS Review and Endorsement Committee (at the University of Haripur)
- Member of IQC (Institutional Quality Circle) at The University of Haripur

Education:

- Master of Mobile Computing** **2007**
Department of Computer Science, University of Staffordshire, UK
- PhD, Computer Engineering (UK)** **2015**
College of Engineering, Designing and Physical Sciences, Brunel University, London
UK
- PhD Thesis Title:** Hadoop Performance Modelling and Job Optimization for Big Data Analytics.

Work Experience:

- The University of Haripur, Haripur, Pakistan** 17 March 2021 – Todate
Professor / Dean/Chairman
- PostDoc (Postdoctoral Fellow)** 13 March 2015 – 30 Jan 2016
Brunel University, London,
UK
- Abdul Wali Khan University Mardan, Pakistan** 18 August 2009 – 16 March 2021
Assistant Professor / Head of Department
- HITEC University, Pakistan** 01 Nov 2007 – 30 Sep 2009
Assistant Professor / IT Manager
- Synectic Solution Ltd, UK** 18 Sept. 2006 – 18 March 2007
Database Analyst
- StaffsLink Midlands, UK** 01 August 2005 – 17 Sept 2006
Oracle Programmer
- Justic & Law Commission of Pakistan** 06 June 2001 – 04 Feb 2005
Programmer (BPS-17)

Selected Journal Publications:

- 1) Shahid Akbar, Ali Raza, Matee Ullah, Wajdi Alghamdi, **Mukhtaj khan**, Quan Zou, “Deep capsule neural network for identifying anticancer peptides using sequence to image transformation-based local embedded features”, BMC Biology, IF = 4.5, 11/02/2026, <https://doi.org/10.1186/s12915-026-02547-1>, ISSN: 1741-7007
- 2) Nagina Bibi, **Mukhtaj Khan***, Salman Khan, Sumaiya Noor, Salman A. AlQahtani, and Abid Ali, Sequence-Based Intelligent Model for Identification of Tumour T Cell Antigens Using Fusion Features, *IEEE ACCESS*, IF = 3.70, 15/10/2024, ISSN: 2169-3536, Vol. 12. <https://ieeexplore.ieee.org/document/10718292>, Digital Object Identifier 10.1109/ACCESS.2024.3481244, PP. 155040 - 155051

- 3) Salman Khan, Islam Uddin, **Mukhtaj Khan**, Nadeem Iqbal, Huda M Alshanbari, Bakhtiyar Ahmad, Dost Muhammad Khan, “Sequence based model using deep neural network and hybrid features for identification of 5-hydroxymethylcytosine modification”, *Scientific Reports*, 20 April 2024, IF = 4.9, <https://www.nature.com/articles/s41598-024-59777-y>, ISSN: 2045-2322, Vol. 14 ODI: <https://doi.org/10.1038/s41598-024-59777-y>, PP. 9116
- 4) Muhammad Ilyas Khan Khalil, Izaz Ur Rahman, Muhammad Zakarya and **Mukhtaj Khan**, “A neighbourhood-aware multi-Markovian switching particle swarm optimization technique for solving complex and expensive problems”, *Soft Computing*, December 2023, IF = 4.1, <https://link.springer.com/article/10.1007/s00500-023-09517-7>, 29/12/2023, ISSN. 1432-7643, Vol. 28, Page No. 6517–6536, ODI: <https://doi.org/10.1007/s00500-023-09517-7>
- 5) Text Augmentation-Based Model for Emotion Recognition Using Transformers, Fida Mohammad, **Mukhtaj Khan**, Safdar Nawaz Khan Marwat, Naveed Jan, Neelam Gohar, Muhammad Bilal and Amal Al-Rasheed, *Computers, Materials and Continua (CMC)*, IF 3.10, 8 October 2023, <https://www.techscience.com/cmc/v76n3/54359/html>, ISSN: 1546-2226, page: 3523-3547, Vol. 3, ODI: <https://doi.org/10.32604/cmc.2023.040202>,
- 6) Salman Khan, **Mukhtaj Khan**, Nadeem Iqbal, Naqqash Dilshad, Maram Fahaad Almufareh, Najah Alsubaie, “Enhancing Sumoylation Site Prediction: A Deep Neural Network with Discriminative Features”, *Life*, IF: 3.40, 2 November 2023, <https://www.mdpi.com/2075-1729/13/11/2153>, ISSN. 2075-1729, vol 13, page. 2153, ODI: <https://doi.org/10.3390/life13112153>,
- 7) Salman Khan, Muhammad Abbas Khan, **Mukhtaj Khan**, Nadeem Iqbal, Salman A. AlQahtani, Mabrook S. Al-Rakhami and Dost Muhammad Khan, “Optimized Feature Learning for Anti-inflammatory Peptide Prediction Using Parallel Distributed Computing”, *Applied Science*, IF: 2.838, 12 June 2023, <https://www.mdpi.com/2076-3417/13/12/7059>, ISSN. 2076-3417, Vol. 13, ODI: <https://doi.org/10.3390/app13127059>, Page No. 7059
- 8) Muhammad Asif Saleem, Norhalina Senan, Fazli Wahid, Muhammad Aamir, Ali Samad, **Mukhtaj Khan***, “Comparative Analysis of Recent Architecture of Convolutional Neural Network”, *Mathematical Problems in Engineering*, IF: 1.009, 31 March 2022, <https://onlinelibrary.wiley.com/doi/10.1155/2022/7313612>, ISSN. 1563-5147 ODI: <https://doi.org/10.1155/2022/7313612>, vol. 2022, Page No. 9
- 9) Rabia Majeed , Ramisha Farrukh, Omer Riaz, Sikandar Ali ,Ali Samad, **Mukhtaj Khan***, “Parallel implementation of FEM Solver for shared memory using Open MP”,

Mathematical Problems in Engineering, IF: 1.009, 19 March 2022, ISSN. 1563-5147 ,
ODI: <https://doi.org/10.1155/2022/2375102>, Vol. 2022, Page No. 13,

- 10) Muhammad Farhan Ramzan, Zaigham Mushtaq, Sikandar Ali, Ali Samad, Mujtaba Husnain, **Mukhtaj Khan***, “BRScS Approach for Resolving Heterogeneity of Data from Multiple Resources at Semantic Level “, *Mathematical Problems in Engineering*, IF: 1.009, 3 March 2022, <https://onlinelibrary.wiley.com/doi/10.1155/2022/1084794>, ODI: <https://doi.org/10.1155/2022/1084794>, Page No. 13, ISSN. 1563-5147
- 11) Asad Ali, Sikandar Ali, Mujtaba Husnain, Malik Muhammad Saad Missen, Ali Samad, **Mukhtaj Khan***, “Detection of Deficiency of Nutrients in Grape Leaves Using Deep Network”, *Mathematical Problems in Engineering*, IF: 1.009, 31 Jan 2022, <https://onlinelibrary.wiley.com/doi/epdf/10.1155/2022/3114525>, ODI: <https://doi.org/10.1155%2F2022%2F3114525>, ISSN. 1563-5147, Vol. 2022, Page No. 12,
- 12) Salman Khan, **Mukhtaj Khan**, Nadeem Iqbal, Mohd Amiruddin Abd Rahman, and Muhammad Khalis Abdul Karim, "Deep-piRNA: Bi-Layered Discriminative Predication Model for PIWI-Interacting RNA using Novel Sequential and Physicochemical Features", *Computers, Materials & Continua*, IF: 3.772, 29 March 2022, <https://www.techscience.com/cmc/v72n2/47151>, ISSN. 1546-2226, ODI: <https://doi.org/10.32604/cmc.2022.022901>, Vol. 72, Page No. 2243-2258
- 13) Mushtaq Khan, Nadir Shah, Rahim Khan, Wasif Nisar, **Mukhtaj Khan**, Ihsan Ali, “Neighborhood Oriented TDMA Scheme for Internet of Things-enabled Remote Sensing”, *European Journal of Remote Sensing*, IF, 3.647, 24 September 2021, ODI: <https://doi.org/10.1080/22797254.2021.1977717>, vol. 56, ISSN. 2279-7254
- 14) Nazia Azim, Nadeem Iqbal, Jamil Ahmad, **Mukhtaj Khan**, Amnah Siddiqa, AND Javaria Ashraf, A Static Analysis of Wnt/ β -catenin and Wnt/Ca²⁺ Biological Regulatory Networks for ARVC Using Automata Network Model, *IEEE ACCESS*, IF 3.75, 15 July 2021, <https://ieeexplore.ieee.org/document/9486895>, ODI: 10.1109/ACCESS.2021.3097550, ISSN. 2169-3536, Page No. 107611 – 107624, Vol. 9
- 15) Waqas Ahmad, Muhammad Aamir, Umair Khalil, Muhammad Ishaq, Nadeem Iqbal, and **Mukhtaj Khan*** "A New Approach for Forecasting Crude Oil Prices Using Median Ensemble Empirical Mode Decomposition and GMDH", *Mathematical Problems in Engineering*, IF 1.009, 31 May 2021, <https://www.hindawi.com/journals/mpe/2021/5589717/>, ODI: <https://doi.org/10.1155/2021/5589717>, ISSN. 1563-5147, Vol. 2021, Page No. 12
- 16) Tufail Khan, Nadeem Iqbal, **Mukhtaj Khan**, Tahir Hussain, Tahir Hameed and Syed Ahmad Chand Bukhari, “Neuromechanical Signal based Parallel and Scalable Model

for Lower Limb Movement”, *IEEE Sensors Journal*, IF: 4.50 27 April 2021, <https://ieeexplore.ieee.org/document/9416692>, ODI: <https://doi.org/10.1109/JSEN.2021.3076114>, ISSN. 1558-1748, Vol. 21, Page No. 16213 - 16221

- 17) Nagina Inayat, **Mukhtaj Khan***, Nadeem Iqbal , Salman Khan , Mushtaq Raza , Dost Muhammad Khan , Abbas Khan and Dong Qing Wei, “iEnhancer-DHF: Identification of Enhancers and Their Strengths Using Optimize Deep Neural Network with Multiple Features Extraction Methods”, *IEEE ACCESS* IF 3.745, 26 February 2021, vol. 9, pp. 40783 – 40796, <https://ieeexplore.ieee.org/document/9363878>, ODI: 10.1109/ACCESS.2021.3062291, ISSN. 2169-3536, Vol. 9, Page No. 40783 - 40796
- 18) Muhammad Adil, Jehad Ali, Muhammad Sajjad Khan, Junsu Kim, Ryan Alturki, Mohammad Zakarya, **Mukhtaj Khan**, Rahim Khan and Su Min Kim, “An Intelligent Hybrid Mutual Authentication Scheme for Industrial Internet of Thing Networks”, *Computers, Materials and Continua*, IF 4.89, 22 March 2021, DOI:10.32604/cmc.2021.014967, <https://www.techscience.com/cmc/v68n1/41804>, ISSN. 1546-2226, Vol. 68, Page. 447
- 19) Hanif Ur Rahman; Mushtaq Raza; Palwasha Afsar; **Mukhtaj Khan**; Nadeem Iqbal; Habib Ullah Khan, "Making the Sourcing Decision of Software Maintenance and Information Technology", *IEEE ACCESS*, IF 4.08, 12 January 2021, <https://ieeexplore.ieee.org/document/9319854/authors#authors>, ODI: 10.1109/ACCESS.2021.3051023, ISSN. 2169-3536, vol. 9, Page No. 11492 - 11510
- 20) Adil Khan **Mukhtaj Khan** Sheeraz Ahmed Nadeem Iqbal Mohd Amiruddin Abd Rahman Muhammad Khalis Abdul Karim Mohd Shafie Mustafa and Yazid Yaakob, EH-IRSP: Energy Harvesting Based Intelligent Relay Selection Protocol, *IEEE ACCESS*, IF 4.08, 2021, <https://ieeexplore.ieee.org/document/9293298>, ODI: 10.1109/ACCESS.2020.3044700, ISSN. 2169-3536, vol. 9, Page No. 64189 - 64199
- 21) Fatima, **Mukhtaj Khan***, Nadeem Iqbal, Salman Khan, Dost Muhammad Khan, Abbas Khan and Dongqing Wei, Prediction of Recombination Spots Using Novel Hybrid Feature Extraction Method via Deep Learning Approach, *Frontiers in Genetic (Computational Genomics)*, IF 4.559, 14 December 2020, <https://www.frontiersin.org/articles/10.3389/fgene.2020.539227/abstract>, <https://doi.org/10.3389/fgene.2020.539227>, ISSN. 1664-8021, Vol. 11
- 22) Salman Khan, **Mukhtaj Khan***, Nadeem Iqbal, Maozhen Li and Dost Muhammad, Spark-Based Parallel Deep Neural Network Model for Classification of Large Scale RNAs into piRNAs and Non-piRNAs, *IEEE ACCESS*, IF 4.08 23 July 2020, <https://ieeexplore.ieee.org/document/9146636?source=authoralert>, ODI: 10.1109/ACCESS.2020.3011508, ISSN. 2169-3536, Vol. 8, Page No. 136978 - 136991

- 23) Tahir Hussain, Nadeem Iqbal, Hafiz Farhan Maqbool, **Mukhtaj Khan**, Mohammed Ibrahim Awad, Abbas Dehghani-Sanij, “Intent Based Recognition of Walking and Ramp Activities for Amputee Using sEMG based Lower Limb Prostheses”, *Biocybernetics and Biomedical Engineering*, IF 2.537, 31 May 2020, <https://www.sciencedirect.com/science/article/abs/pii/S0208521620300772>, ODI: <https://doi.org/10.1016/j.bbe.2020.05.010>, ISSN. 2391-467X, Vol. 40, Page No. 1110-1123
- 24) Salman Khan, **Mukhtaj Khan**, Nadeem Iqbal, Sher Afzal Khan and Kuo-Chen Chou, “Prediction of piRNAs and their function based on discriminative intelligent model using hybrid features into chou’s PseKNC”, *Chemometrics and Intelligent Laboratory Systems*, IF: 2.895, 15 August 2020, <https://www.sciencedirect.com/science/article/pii/S0169743920300794>, ODI: <https://doi.org/10.1016/j.chemolab.2020.104056>, ISSN. 1873-3239, Vol. 203, Page No. 104056
- 25) Abdul Wahid, Dost Muhammad Khan, Nadeem Iqbal, Sajjad Ahmad Khan, Amjad Ali, **Mukhtaj Khan**, Zardad Khan, Feature Selection and Classification for Gene Expression Data Using Novel Correlation Based Overlapping Score Method via Chou’s 5-Steps Rule, *Chemometric and Intelligent Laboratory*, IF: 2.895, 15/4/2020, <https://www.sciencedirect.com/science/article/abs/pii/S0169743919307488?via%3Dihub>, ODI: <https://doi.org/10.1016/j.chemolab.2020.103958> ISSN. 1873-3239, Vol. 199, Page No. 103958
- 26) Ayaz Ali Khan, Muhammad Zakarya, Rahim Khan, Izaz ur Rahman, **Mukhtaj Khan**, Atta ur Rehman Khan, “An energy performance efficient resource consolidation scheme for heterogeneous cloud datacenters”, *Journal of Network and Computer Applications*, IF 5.57, 15/1/2020, <https://www.sciencedirect.com/science/article/pii/S1084804519303571>, ODI: <https://doi.org/10.1016/j.jnca.2019.102497>, ISSN. 1095-8592, Vol. 150, Page No. 102497
- 27) Tahir Hussain, Nadeem Iqbal, Hafiz Farhan Maqbool, **Mukhtaj Khan** and Mehak Tahir, “Amputee walking mode recognition based on mel frequency cepstral coefficients using surface electromyography sensor”, *International Journal of Sensor Networks*, IF 1.428, 3/3/2020, <https://www.inderscience.com/info/inarticle.php?artid=105562>, <https://dx.doi.org/10.1504/IJSNET.2020.105562>, ISSN. 1748-1287, Vol. 32, Page No. 139 - 149
- 28) Dost Muhammad Khan, Anum Yaqoob ,Abdul Wahid, Umair Khalil, Nadeem Iqbal, **Mukhtaj Khan**, Zardad Khan, Mohd Amiruddin Abd Rahman and Mohd Shafe Mustafa, “Variable Selection via SCAD-Penalized Quantile Regression for High-Dimensional Count Data”, *IEEE Access*, IF 4.08, 18/10/2019, <https://ieeexplore.ieee.org/document/8876588>, 10.1109/ACCESS.2019.2948278, ISSN. 2169-3536, Vol. 7, Page No. 153205 - 153216

- 29) Rahim Khan, Muhammad Zakarya, Zhiyuan Tan, Muhammad Usman, Mian Ahmad Jan and **Mukhtaj Khan**, “PFARS: Enhancing Throughput and Lifetime of Heterogeneous WSNs through Power-aware Fusion, Aggregation and Routing”, *International Journal of Communication Systems*, **IF 1.319**, Accepted, 07/10/2019, <https://onlinelibrary.wiley.com/doi/abs/10.1002/dac.4144>, ODI: <https://doi.org/10.1002/dac.4144>, ISSN. 1099-1131, Vol. 32, Page No. 4144
- 30) Adil Khan, **Mukhtaj Khan**, Sheeraz Ahmed, Mushtaq Khan, Mohd Amiruddin Abd Rahman, “Energy harvesting based routing protocol for under water sensor networks”, *PLOS ONE*, **IF 2.776**, ISSN. 1932-6203, Vol.14, 17/07/2019, <https://doi.org/10.1371/journal.pone.0219459>, Page No. 1-18
- 31) Salman Khan, **Mukhtaj Khan***, Nadeem Iqbal Tahir Hussain, Sher Afzal Khan, Kuo-Chen Chou, “A Two-Level Computation Model Based on Deep Learning Algorithm for Identification of piRNA and Their Functions via Chou’s 5-Steps Rule”, *International Journal of Peptide Research and Therapeutics*, **IF 2.40**, 18/07/2019, <https://link.springer.com/article/10.1007/s10989-019-09887-3>, ODI: <https://doi.org/10.1007/s10989-019-09887-3>, ISSN. 1573-3904, Vol. 26, PP. 795–809,
- 32) Ayaz Ali Khan, Muhammad Zakarya, Rajkumar Buyya, Rahim Khan, **Mukhtaj Khan**, Omer Rana, “An energy and performance aware consolidation technique for containerized datacenters”, *IEEE Transactions on Cloud Computing*, **IF 7.93**, Accepted, 05/06/2019, <https://ieeexplore.ieee.org/document/8731726>, ODI: <https://doi.org/10.1109/TCC.2019.2920914>, ISSN. 2168-7161, Vol. 9, PP. 1305 - 1322
- 33) Ayaz Ali Khan ; Abid Ali ; Muhammad Zakarya ; Rahim Khan ; **Mukhtaj Khan** ; Izaz Ur Rahman ; Mohd Amiruddin Abd Rahman, “A migration aware scheduling technique for real-time aperiodic tasks over multiprocessor systems”, *IEEE Access*, Vol. 7, PP: 27859-27873, 4/3/2019. **IF: 4.098**, <https://ieeexplore.ieee.org/document/8658069>, ODI: <https://doi.org/10.1109/ACCESS.2019.2901411>, ISSN. 2169-3536
- 34) Tahir Hussain, Hafiz Farhan Maqbool, Nadeem Iqbal, **Mukhtaj Khan**, Salman ., Abbas Deghani Sanij, "Computational model for the recognition of lower limb movement using wearable gyroscope sensor", *International Journal of Sensor Networks*, Vol.30, No.1, 23/4/2019, **IF=1.428**, <https://www.inderscience.com/info/inarticle.php?artid=99230>, <https://dx.doi.org/10.1504/IJSNET.2019.099230>, ISSN. 1748-1287, pp.35 - 45
- 35) Abdul Majid, **Mukhtaj Khan***, Nadeem Iqbal, Mian Ahmad Jan, Mushtaq Khan, Salman, “Application of Parallel Vector Space Model for Large-Scale DNA Sequences Analysis”, *Journal of Grid Computing*, vol. 17, no. 60, 10/8/2018, **IF= 3.288**, <https://link.springer.com/article/10.1007/s10723-018-9451-5>, ODI: <https://doi.org/10.1007/s10723-018-9451-5>, ISSN. 1572-9184 pages 313–324

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- 37) Adil Khan, **Mukhtaj Khan** and Sheeraz Ahmad, “Delay and Throughput Analysis using Node Density as Pivot Value in UWASNs”, *Ad Hoc & Sensor Wireless Networks*, Vol. 40, No. 3-4, pp. 237-254, **IF = 1.034**, 3/11/2018, <https://www.oldcitypublishing.com/journals/ahsw-n-home/ahsw-n-issue-contents/ahsw-n-volume-40-number-3-4-2018/>, ISSN. 1552-0633
- 38) Malik Taimur Ali, Sheeraz Ahmed, Saqib Shahid Rahim, Mukhtar Ahmad, Mian Ahmed Jan, **Mukhtaj Khan**, Atif Ishtiaq, M. Ayub Khan, "Dist-Coop: Distributed Cooperative Transmission in UWSNs Using Optimization Congestion Control and Opportunistic Routing", *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 9, No. 6, 1/6/2018, **IF 0.9**, <https://thesai.org/Publications/ViewPaper?Volume=9&Issue=6&Code=IJACSA&SerialNo=49>, ODI: <https://dx.doi.org/10.14569/IJACSA.2018.090649>, ISSN. 2156-5570 PP. 356 - 368
- 39) Muhammad Ahsan, Sheeraz Ahmad, Adil Khan, **Mukhtaj Khan**, Fazle Hadi, Fazal Wahab and Imran Ahmad, “A Recent Study on Routing Protocols in UWSNs”, *International Journal of Advanced Computer Science and Applications (IJACSA)*, vol 8(4), 1/6/2017, **IF 0.9**, <https://thesai.org/Publications/ViewPaper?Volume=8&Issue=4&Code=IJACSA&SerialNo=57>, ODI: DOI: [10.14569/IJACSA.2017.080457](https://doi.org/10.14569/IJACSA.2017.080457), ISSN. 2156-5570, PP. 431-436
- 40) **Mukhtaj Khan***, Zhengwen Huang, Maozhen Li, Gareth A. Taylor , Phillip M. Ashton and Mushtaq Khan, “Optimizing Hadoop Performance for Big Data Analytics in Smart Grid”, *Mathematical Problems in Engineering*, Article ID 2198262, 11 pages, 19/11/2017, **IF = 1.179**, <https://www.hindawi.com/journals/mpe/2017/2198262/>, ODI: <https://doi.org/10.1155/2017/2198262>, ISSN. 1563-5147, Vol. 2017
- 41) **Mukhtaj.Khan***, Zhenguen.Huang, Maozhen.Li and Gareth A. Taylor and Mushtaq Khan, “Optimizing Hadoop Parameter Settings with Gene Expression Programming Guided PSO” *Concurrency and Computation-Practice & Experience*, 24/02/2016, **IF=1.50**, DOI: <https://doi.org/10.1002/cpe.3786>, <https://onlinelibrary.wiley.com/doi/full/10.1002/cpe.3786>, ODI: <https://doi.org/10.1002%2Fcpe.3786> , ISSN. 1532-0634, Vol. 29, PP. 1-21
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- 45) Yang Liu, Maozhen Li, **Mukhtaj Khan** and Man Qi , “A MapReduce based Distributed LSI for Scalable Information Retrieval “, *Computing and Informatics*, vol. 33, no. 2, pp. 259-280, 24/06/2014, IF = 0.504, ISSN. 2585-8807 , <https://www.cai.sk/ojs/index.php/cai/article/view/995>

Conference Publications:

- 1) **Mukhtaj Khan**, Salman, Nadeem Iqbal, “Computational Performance Analysis of Cluster-based Technologies for Big Data Analytics” *the 10th IEEE International Conference on Cyber, Social and Physical Computing (CSPCom 2017), Exter, UK,2017*, <https://ieeexplore.ieee.org/document/8276765>.
- 2) **M. Khan**, M. Li, P. Ashton, G. Taylor, and J. Liu, “Big data analytics on PMU measurements,” in Proceedings of the *2014 11th International Conference on Fuzzy Systems and Knowledge Discovery (FSKD)*, , 2014, pp. 715–719, <https://ieeexplore.ieee.org/document/6980923>.
- 3) **M. Khan**, Y. Liu and M. Li, “Data locality in Hadoop cluster systems,” in *Fuzzy Systems and Knowledge Discovery (FSKD), 2014 11th International Conference on*, 2014, pp. 720-724, <https://ieeexplore.ieee.org/document/6980924>
- 4) Khan, M., Ashton, P., Li, M., Taylor, G., Pisica, I. and Liu, J. (2015) 'Parallel Detrended Fluctuation Analysis for Fast Event Detection on Massive PMU Data'. *General Meeting of the IEEE-Power-and-Energy-Society*. Denver, CO. 1 - 30 July. IEEE. ISSN: 1944-9925

Book Chapter Publication:

1. Majid A., **Khan M.**, Khan M., Ahmad J., Li M., Paracha R.Z. (2019) Parallel Computation on Large-Scale DNA Sequences. In: Khan F., Jan M., Alam M. (eds) Applications of Intelligent Technologies in Healthcare. EAI/Springer Innovations in Communication and Computing. Springer, Cham, pp. 55 – 65, online available: https://link.springer.com/chapter/10.1007%2F978-3-319-96139-2_6.
2. Sheeraz Ahmad, Adil Khan Kakakhel, **Mukhtaj Khan**, Ata-ur-Rahman, Main Ahmad Jan, “ EH-ARCUN: Energy Harvesting Approach towards Reliability with Cooperation in UWSNs”, *Recent Trends and Advances in Wireless and IoT-enabled Networks*, Springer International Publishing, <https://www.springerprofessional.de/en/eh-arcun-energy-harvested-analytical-approach-towards-reliabilit/16413856>
3. Fazullah Khan , Izaz ur Rahman , **Mukhtaj Khan** , Zafar Iqbal , Muhammad Alam M. (2017) “CoAP-Based Request-Response Interaction Model for the Internet of Things”. In: Ferreira J., Alam M. (eds) Future Intelligent Vehicular Technologies. Future 5V 2016. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 185. Springer, Cham, https://link.springer.com/chapter/10.1007/978-3-319-51207-5_14
4. Fazullah Khan, **Mukhtaj Khan**, Zafar Iqbal , Izaz ur Rahman , Muhammad Alam. (2017) “Secure and Safe Surveillance System Using Sensors Networks - Internet of Things”. In: Ferreira J., Alam M. (eds) Future Intelligent Vehicular Technologies. Future 5V 2016. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 185. Springer, Cham, https://link.springer.com/chapter/10.1007/978-3-319-51207-5_16

Workshop / Training Attended:

- 1). Seminar on “An investigation on mobile working force with the application to adaptive production systems”, Organized by School of Engineering and Design, Brunel University, 13th March, 2012
- 2). Seminar on “Source Imaging Device Identification Using Sensor Pattern Noise”, Organized by School of Engineering and Design, Brunel University, 6th March, 2012
- 3). The 2nd Annual BIAS Conference 2012: Early Stage Career Researcher, Organized by Brunel Institute Ageing Studies, Brunel University, London, UK, 15th of February 2012
- 4). Training on Teamwork: Getting People to Work Together, Pakistan Institute of Management, Islamabad, IIUI Campus, 9-11 August, 2021
- 5). Training on Strategic Management, Pakistan Institute of Management, Lahore, 8-9 September, 2021

Reviewer of Scientific Journals:

I am reviewer of the following impact factor journals.

- IEEE Transaction on Smart Grid
- IEEE ACCESS
- IEEE Transaction on Parallel and Distributed Computing
- Concurrency and Computation: Practice and Experience.
- Cluster Computing
- Journal of Grid Computing
- Computational Biology and Chemistry
- Computer System Science and Engineering
- Journal of Theoretical Biology
- Computers and Electronics in Agriculture

Member of International Conference Organizing Committee

- General Chair, 1st International Conference on Computational Sciences and Innovations, the University of Haripur, July 22-23, 2024.
- Work Chair, “PakSec” held in conjunction with the 16th IEEE International Conference on Security, Privacy, and Anonymity in Computation, Communication, and Storage (SpaCCS 2023) in Wuhan, China, on December 21 - 24, 2023.
- Technical Committee member of 1st EAI International Conference on Future Intelligent Vehicular Technologies, September, 2016, PORTO, PORTUGAL, Future 5V (2016).
- Organizing Committee member of EAI International Conference on Future Intelligent Vehicular Technologies, October 17-19, 2017, Islamabad, Pakistan, Future 5V (2017).
<http://future5v.org/2017/show/org-com>
- Organizing Committee member of 2nd International Conference on Innovations in Computer Science and Software Engineering, December 5-6, 2018, Karachi, Pakistan, ICONICS (2018).
<http://www.nediconics.com/>
- Member of Organizing Committee of EAI BigIoT-EDU 2021 - EAI International Conference on Application of Big Data, Blockchain, and Internet of Things for Education Information (2021) August 1-3, 2021, Online <https://bigiot-edu.eai-conferences.org/2021/organizing-committee/>
- The 2021 IEEE International Conference on Real-time Computing and Robotics (IEEE RCAR 2021), July. 15-19, 2021, Xining, China, online:
<http://robotics.sjtu.edu.cn/RCAR2021/#/>

Post Graduate Students Supervision

PhD Student (Completed)

1. Dr. Salman Khan, Efficient Machine Learning Based Model for Identification of piRNAs Sequence using Cluster Computing
2. Dr. Adil Khan, Towards Energy Harvesting Scheme in Underwater Sensor Networks
3. Dr. Tahir Hussain, Physically Impaired Mobility Activities Recognition System Using Machine Learning Approach
4. Dr. Mudassar Ali khan, Improving Authentication, and Interaction Techniques for a Framework of Internet of Medical Things

PhD Student (Supervision in Progress)

1. Ms. Ayesha Sikandar
2. Ms. Nayab
3. Mr. Fazullah
4. Mr. Amir Khan (Co-Supervisor)
5. Miss. Sonia Rifaqat (Co-Supervisor)

MS Students (Completed)

1. Abdul Majid, A Parallel and Dynamic Vector Space Model for Large-Scale DNA Sequence Analysis on Multi-core System
2. Mian Fazli Sabooh, Prediction of 5-methylcytosine sites in RNA using Composite feature vector of Di nucleotide by applying machine learning techniques
3. Fatima, A Computational Model for Identification of DNA Recombination Spots Using Machine Learning Algorithms
4. Islam Uddin, Intelligent Computational Model Based on Deep Neural Network for Identification of 5-hydroxymethylcytosine Modification
5. Muhammad Izaz, An Efficient COVID-19 Detection System Based on Deep Learning Model
6. Khalil Khan, Prediction of Heat Shock Proteins Types Using Hybrid Feature Vector Incorporating with SVM
7. Nagina Inayat, An Intelligent Computational Model For Prediction Of Enhancer Proteins And Their Strength Using Deep Learning Algorithm
8. Sadia Nisar, A Parallel Computational Model for a Large Scale DNA Binding Protein Classification Using Cluster Computing
9. Safeer Ullah, Machine Learning Based Computational Model for Prediction of Interleukin-6 Inducing Peptides
10. Abbas Khan, A study of a parallel Deep Neural Model for the prediction of Anti-Inflammatory Peptides using cluster computing
11. Yawar Khan, Intelligent Model for the Identification of DNA Replication using Deep learning
12. Miss. Wafa Bibi, Computational Model Based on Machine Learning and Normalization Techniques for Medical Insurance Cost Prediction
13. Miss. Hafsa Tanveer. An Intelligent Model for Identification of DNA N4-Methycytosine Using Machine Learning with Hybrid Features.

14. Mr. Muhammad Fida, Text Augmentation Based Model for Emotion Recognition Using Transformers.
15. Mr. Inam Khan (Co-Supervisor)
16. Ms. Nagina Bibi, Intelligent Model for Identification of Tumor T Cell Antigens Using Machine Learning and Discriminative Features
17. Miss. Ayesha Bibi, Optimized Machine Learning Framework for Identification of Umami Peptide Using Hybrid Feature
18. Blockchain Enabled Traceability Model for Machine Learning Based Security Attacks
19. Miss Sabahat, Sequence Based Model for Identification of DNA-Binding Protein Using Machine Learning and Discriminative Feature Extraction
20. Mr. Sadiq Sultan, Extended Kalman Filter Based Approach for Localization and Tracking of AUV in UWSNs.
21. Mr. Raja Mujeeb Ur Rehman, Real-time Pothole Detection and Distance Calculation for Smart Vehicles Using Intelligent Model.
22. Mr. Baz Mohammad, Clinical Advancement in Diabetic Retinopathy Stage Classification Using Optimized Convolutional Neural Network Framework
23. Miss Ayesha Alam, Computational Model for Prediction of Enhancer RNAs Using Hybrid Features
24. Mr. Kamran, Intelligent-based Framework for Prediction of Mental Health Using Discriminative Features
25. Miss Wajeeha Naz, Optimized Machine Learning Framework for Emotion Detection Using Wireless Data with Augmentation
26. Miss Sana, Maroof, Federated Learning and Differential Privacy based Security Framework for Industrial Digital Twins
27. Miss Saba, Enhancing Blockchain Scalability Through Sharding for Efficient Resource Utilization
28. Miss Fiza Bibi, AI-Driven Framework for Brain Tumor Segmentation with Hybrid Privacy-Preservation Approach
29. Miss Zainab Noor, A Federated Learning Framework with Differential Privacy for Energy Consumption Forecasting.
30. Miss Liaba Bibi, A Transformer Enabled Suicide Ideation Prediction Model on Social Media.

Google Scholar account

https://scholar.google.com/citations?hl=en&user=dCpjYdkAAAAJ&view_op=list_works&sortby=pubdate

ORCID ID

<https://orcid.org/0000-0002-4933-6192>

Publons profile

<https://publons.com/dashboard/records/review/>