

Majid Iqbal Khan

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OBJECTIVE	To stand out in a work-conducive environment where substantial innovative ideas are patronized
EDUCATION	<p>Doktor der Technischen Wissenschaften (Dr. techn.) (2006 – 2009) <i>I finished my degree with distinction from University of Vienna, Vienna Austria.</i></p> <p>My thesis was focused on exploiting sink mobility to reduce the WSN initialization and operational overhead. Some major contributions in my thesis are a boundary identification scheme for WSN, named “Mobile Sink based Boundary detection” (<i>MoSBoD</i>), Congestion avoidance low Latency and Energy efficient (<i>CaLEe</i>) routing protocol for WSN and identification of operational regions (based on varying network configurations) where one protocol performs better than the other. Third contribution leads to the development of a framework for a meta-routing protocol that can dynamically switch between different available routing schemes depending on the end-user demands and varying network conditions.</p> <p>Masters of Software Engineering (2001 – 2004) <i>CGPA / Percentage = 3.30 / 80%</i> <i>COMSATS Institute of Information Technology, Islamabad, Pakistan</i></p> <p>Developed a prototype of Linux based parallel file server. Aim of the project was to present a proof of concept that a parallel file server can be built using commodity computers. Basic setup has a P-IV master computer and P-IIs attached to it through Ethernet based network. The master computer keeps the Meta-data of files and folders while slave nodes keep the actual data of the files. The file server was then made visible to windows based LAN through SAMBA configuration.</p> <p>Bachelor of Science (1999 – 2001) <i>Major in Mathematics and Physics</i> <i>University of The Punjab, Lahore, Pakistan</i></p> <p>Higher Secondary School Certificate (HSSC) (1997 – 1999) <i>Pre-Engineering (Mathematics, Physics and Chemistry)</i> <i>Islamabad Model College for Boys, Sector F-7/3, Islamabad Pakistan</i></p> <p>Secondary School Certificate (SSC) (1995 – 1997) <i>Mathematics, Physics, Chemistry and Biology</i> <i>Anglo-Arabic Public Secondary School, Rawalpindi, Pakistan</i></p>
WORK EXPERIENCE	<p>Head (July, 2016 – till date) <i>Department of Computer Sciences</i> <i>COMSATS Institute of Information Technology, Islamabad, Pakistan</i></p> <p>Associate Professor (July, 2015 –till date) <i>Department of Computer Sciences</i> <i>COMSATS Institute of Information Technology, Islamabad, Pakistan</i></p> <p>Associate Head (February, 2013 – June, 2016) <i>Department of Computer Sciences</i> <i>COMSATS Institute of Information Technology, Islamabad, Pakistan</i></p> <p>Assistant Professor (November, 2009 –June, 2015) <i>Department of Computer Sciences</i></p>

PUBLICATIONS

Journal

1. Muhammad Saleem Khan, Daniele Midi, Majid I. Khan, Elisa Bertino, "Fine-Grained Analysis of Packet Loss in MANETs", IEEE Access, vol. 5, issue 1, pp. 7798-7807, December 2017 (Impact factor: 1.27).
2. Faheem Zafar, Abid Khan, Saif Ur Rehman Malik, Mansoor Ahmed, Adeel Anjum, Majid I. Khan, Nadeem Javed, Masoom Alam, Fuzel Jamil, "A survey of cloud computing data integrity schemes: design challenges, taxonomy and future trends", Computers & Security, vol. 65, pp. 29-49, March 2017. (Impact factor: 1.64)
3. Muhammad Saleem Khan, Daniele Midi, Saif-Ur-Rehman Malik, Majid I. Khan, Nadeem Javaid, and Elisa Bertino, "Isolating Misbehaving Nodes in MANETs with an Adaptive Trust Threshold Strategy", Mobile Networks and Applications, January 2017 (Impact factor: 1.538).
4. Muhammad Saleem Khan, Saira Waris, Ihsan Ali, Majid I. Khan, Mohammad Hossein Anisi, "Mitigation of Packet Loss Using Data Rate Adaptation Scheme in MANETs", Mobile Networks and Applications, pp. 1-10, 2016 (Impact factor: 1.538)
5. Muhammad Saleem Khan, Majid I. Khan, Saif-Ur-Rehman Malik, Osman Khalid, Mukhtar Azim and Nadeem Javaid, "MATF: A Multi-attribute Trust Framework for MANETs", EURASIP Journal on Wireless Communications and Networking, 197, 2016. (Impact factor: 0.627)
6. K. Latif, N. Javaid, A. Ahmad, Z. A. Khan, N. Alrajeh and Majid I. Khan, "On Energy Hole and Coverage Hole Avoidance in Underwater Wireless Sensor Networks", IEEE Sensors Journal, vol. 16, no. 11, pp. 4431-4442, June1, 2016. (Impact factor: 1.889)
7. Nadeem Javaid, Mehreen Shah, Ashfaq Ahmad, Muhammad Imran, Majid I. Khan, Athanasios V. Vasilakos, "An enhanced energy balanced data transmission protocol for underwater acoustic sensor networks", Sensors, 16, 487, 2016. (Impact factor: 2.245)
8. Mariam Akbar, Nadeem Javaid, Majid I. Khan, Muhammad Imran and Mohsen Guizani, "Sink mobility aware energy efficient network integrated super heterogeneous protocol for WSNs", EURASIP Journal on Wireless Communications and Networking, 2015. (Impact factor = 0.72)
9. Nadeem Javaid, Naveed Ilyas, Ashfaq Ahmad, Nabil Alrajeh, Umar Qasim, Zahoor Ali Khan, Majid I. Khan, "An Efficient Data Gathering Routing Protocol for Underwater Wireless Sensor Networks", Sensors 2015, 15 (11), 29149-29181; doi: 10.3390/s151129149. (Impact factor: 2.245)
10. Mariam Akbar, Nadeem Javaid, Zahoor Khan, Umar Qasim, Syed Hassan Ahmed, Majid I. Khan, and Safdar Hussain Bouk, "Towards Network Lifetime Maximization: Sink Mobility Aware Multihop Scalable Hybrid Energy Efficient Protocols for Terrestrial WSNs", International Journal of Distributed Sensor Networks, vol. 2015, 16 pages, 2015. doi:10.1155/2015/908495. (Impact factor: 0.665)
11. Mukhtar Azeem, Majid I. Khan, Samee Ullah Khan, Wilfried Gansterer, "Efficient scheduling of sporadic tasks for real-time wireless sensor networks", IET Wireless Sensor Systems, vol. 5, issue 1, page 1-10, 2015.
12. Mukhtar Azeem, Majid I. Khan, Yasir Faheem, Manzoor Illahi Tamimy, et al.,

- “Reactive GTS Allocation Protocol for Sporadic Events Using the IEEE 802.15.4”, *Mathematical Problems in Engineering*, vol. 2014, Article ID 836524, 13 pages, 2014. doi:10.1155/2014/836524. (Impact factor: 1.082)
13. Nadeem Javaid, Mariam Akbar, Zahoor Khan, Turki Ali Alghamdi, Malik Najmus Saqib and Majid I. Khan, “Modeling Enhancements in Routing Protocols under Mobility and Scalability Constraints in VANETs” *International Journal of Distributed Sensor Networks*, vol. 2014, Article ID 261823, 15 pages, 2014. doi:10.1155/2014/261823. (Impact factor: 0.923).
 14. Tahir Mustafa Madani, Muhammad Tahir, Sheikh Ziauddin, Syed Ali Raza, Mirza Waqar Ahmed, Majid I. Khan, Mahmood Ashraf, "An accelerometer-based approach to evaluate 3D unistroke gestures", *International Arab Journal of Information Technology (IAJIT)*, vol. 12, issue 4, pages 389-394, 2013. (Impact factor: 0.39)
 15. Majid I. Khan, Wilfried N. Gansterer, Guenter Haring, "Static vs. mobile sink: The influence of basic parameters on energy efficiency in wireless sensor networks", *Computer Communications*, vol. 36, issue 9, pages 965-978, 15 May 2013 (Impact factor: 1.044).
 16. K. Bilal, S. U. Khan, L. Zhang, H. Li, K. Hayat, S. A. Madani, N. Min-Allah, L. Wang, D. Chen, Majid I. Khan, C.-Z. Xu, and A. Y. Zomaya, "Quantitative Comparisons of the State of the Art Data Center Architectures", *Concurrency and Computation: Practice and Experience*, vol. 25, issue 12, pages 1771-1783, 25 August 2013 (Impact factor: 0.636).
 17. K. Bilal, S. U. Khan, S. A. Madani, K. Hayat, Majid I. Khan, N. Min-Allah, J. Kolodziej, L. Wang, S. Zeadally, and D. Chen, "A Survey on Green Communications using Adaptive Link Rate", *Cluster Computing*, vol. 16, issue 3, pages 575-589, 01 September, 2013 (Impact factor: 0.519).
 18. O. Khalid, S. U. Khan, S. A. Madani, K. Hayat, Majid I. Khan, N. Min-Allah, J. Kolodziej, L. Wang, S. Zeadally, and D. Chen, "Comparative Study of Trust and Reputation Systems for Wireless Sensor Networks", *Security and Communication Networks*, vol. 6, issue 6, pages 669–688, June 2013 (Impact factor: 0.414).
 19. S. Raza, N. S. Malik, A. Shakeel and Majid I. Khan, "Implementation and Comparative Analysis of the Fault Attacks on AES", *International Arab Journal of Information Technology*, vol. 10, issue 6, 2013 (Impact factor: 0.39).
 20. Sadaf Tanvir, Majid I. Khan and Benoit Ponsard, "Comparison of Proactive vs. Reactive Localization Protocols for Wireless Sensor Networks", *Journal of Computer Engineering & Information Technology*, vol. 2, issue 3, 2013. doi: 10.4172/2324-9307.1000111
 21. Farhana Jabeen, Sarfaraz Nawaz, Sadaf Tanvir, Majid I. Khan, "Spatio-temporal Query Processing over Sensor Networks: Challenges, State of the Art and Future Directions", *KSII Transactions on Internet and Information Systems (TIIS)*, vol. 6, issue 7, July, 2012 (Impact factor: 0.37).
 22. Sadaf Tanvir, Farhana Jabeen, Majid I. Khan, Benoit Ponsard, "On Properties of Beacon Based Localization Protocol for Wireless Sensor Networks", *Middle Eastern Journal of Advanced Research (MEJSR)* vol. 12 issue 2, 131-140, 2012 (ISI Indexed).

Conference

1. Muhammad Saleem Khan, Idrees Ahmed, Abid Khan, and Majid.I.Khan, “Adaptive Reputation Weight Assignments Scheme for MANETs”, in 15th IEEE International Conference on Trust, Security and Privacy in Computing and

- Communications (IEEE TrustCom-16), August 23-26, 2016, Tianjin, China.
2. Zia Ullah, Muhammad Saleem Khan, Idrees Ahmad, Nadeem Javaid, and Majid I. Khan, "Fuzzy-Based Trust Model for Detection of Selfish Nodes in MANETs", The 30th IEEE International Conference on Advanced Information Networking and Applications (AINA-2016), Switzerland.
 3. Muhammad Saleem Khan, Daniele Midi, Majid I. Khan, and Elisa Bertino, "Adaptive Trust Update Frequency in MANETs", 21st IEEE International Conference on Parallel and Distributed Systems (ICPADS 2015), 14-17 December, 2015, Melbourne, Australia.
 4. Muhammad Saleem Khan, Daniele Midi, Majid I. Khan, and Elisa Bertino, "Adaptive Trust Threshold Strategy for Misbehaving Node Detection and Isolation", The 14th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (Trust-com15), 20-22 August 2015, Helsinki, Finland.
 5. Tahir Mustafa Madni, Yunus B Nayan, Suziah B Sulaiman, Muhammad Tahir, Majid I. Khan, "Design of interactive whiteboard system for collaborative learning", International Conference on Computer and Information Sciences (ICCOINS), pp.1-5, 3-5 June 2014.
 6. Mukhtar Azeem, Majid I. Khan, Arfan Nazir, "File System Level Circularity Requirement", in proceedings of International Conference on Advances in Computing and Communications (ACC-2011), Kochi, Kerala, India.
 7. Muhammad Tahir, Dominique Gaiti, Majid I. Khan, "SMMAG: SNMP-based MPLS-TE Management using Mobile Agents", in proceedings of International Conference on Advances in Computing and Communications (ACC-2011), Kochi, Kerala, India.
 8. Zahra Nauman, Sohaiba Iqbal, Majid I. Khan, Muhammad Tahir, "WSN-Based Fire Detection and Escape System", in proceedings of 4th International Conference on Multimedia Communication, Services and Security (MCSS'11) Krakow, Poland.
 9. Majid I. Khan, Wilfried N. Gansterer, Günter Haring, "Energy consumption vs. latency in a new boundary identification method for WSNs with a mobile sink". In Proceedings of the 6th ACM international Symposium on Mobility Management and Wireless Access (Vancouver, British Columbia, Canada, October 30 - 31, 2008). MobiWac '08. ACM, New York, NY, pp 125-132.
 10. Majid I. Khan, Wilfried N. Gansterer, Günter Haring, "Identifying the Boundary of a Wireless Sensor Network with a Mobile Sink". In proceedings of the 7th international conference on AD-HOC Networks & Wireless, September 10 - 12, 2008. pp 367-379.
 11. Majid I. Khan, Wilfried N. Gansterer, Guenter Haring, "In-network storage model for data persistence under congestion in wireless sensor network". In Proceedings of the First International Conference on Complex, Intelligent and Software Intensive Systems (CISIS'07), 2007, pp. 221-228.

Book Chapter

1. Muhammad Saleem Khan, Qasim Khan Jadoon, Majid I. Khan, "A Comparative Performance Analysis of MANET Routing Protocols under Security Attacks", Mobile and Wireless Technology, Lecture Notes in Electrical Engineering, volume 310, 2015, pp 137-145, 2015.

RESEARCH FUNDINGS

- ***Locating the mobile entities (2011 - 2012)***

Amount: Rs. 200,000

Status: Completed

Funding agency: COMSATS Institute of Information Technology

	<ul style="list-style-type: none"> • Information Privacy in Collaborative Environments Amount: Rs. 0.41 million Status: Completed Funding agency: Higher Education Commission of Pakistan. • Utilizing long distance WIFI communication to enable e-health applications for rural communities Amount: US\$10,000 Status: Submitted Funding agency: ISESCO-COMSTECH • Intelligent Remote Monitoring in e-health Environment using Multi-modal Feedback Mechanism Amount: Rs. 9.897 million Status: Submitted Funding agency: Higher Education Commission of Pakistan.
<p>TRAININGS / WORKSHOPS</p>	<ol style="list-style-type: none"> 1. <i>High performance computing workshop</i>, held in Abu Dhabi, United Arab Emirates, March 14-17, 2005, organized by Intel® software college. 2. Summer school on <i>Applications of Wireless Sensor Network</i>, September 10-14, 2007, Warsaw Poland. 3. <i>First Euro NGI summer school on Ad-hoc, Sensor, and Meshed Networks Self-organization, Topology, Routing, Performance Analysis</i>, Warsaw Poland. September 15-19, 2008. 4. <i>EuroNF PhD course on Seamless mobility</i>, Karlskrona Sweden. May 25-29, 2009. 5. <i>4th International Workshop on Internet Security</i>, Dar-es-Salaam, Tanzania, 20-24 October, 2014. 6. <i>1st Joint Pakistan-Belarus Young Scientist Forum</i>, Minsk, Belarus, 04-10 October, 2015.
<p>AFFILIATIONS</p>	<ul style="list-style-type: none"> • Co-Chair, PhD Symposium, Frontier of Information Technology (FIT), 2015. • Member technical program committee Frontier of Information Technology (FIT), 2010, 2011, 2012, 2013, 2014 and 2015. • Member technical program committee 4th IEEE International Conference on Computer Science and Information Technology, (ICCSIT'11) • Member technical program committee for 3rd International workshop on Self-Organizing Systems, December 10-12, 2008, Vienna, Austria.
<p>PROFESSTIONAL SKILLS</p>	<p>OS Platforms: Linux , Sun Solaris, Microsoft Windows Computer Tools and Language: C++, C for Linux kernel programming Assembly for Motorola 68HC11, NS2, ONE simulator.</p>
<p>OTHER</p>	<p>PhD supervised: One of my PhD student has successfully defended his thesis and an other has submitted thesis in FALL16 semester. Language skills: Urdu, English, and German</p>