Muhammad Saleem Khan, PhD

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EDUCATION

Ph.D Computer Science

COMSATS Institute of Information Technology, Islamabad, Pakistan.

Thesis Topic: "Trust Based Security Framework for Secure Routing in Mobile Ad hoc Networks"

• Advisor: Dr. Majid Iqbal Khan

MS Computer Science, 2008-2010

Mohammad Ali Jinnah University, Islamabad, Pakistan.

Master in Information Technology, 2004-2006

Kohat University of Science and Technology, Kohat, Pakistan.

Bachelor (B.Sc), 2001-2003

Gomal University, D.I. Khan, Pakistan.

Work Experience

- 1. Assistant Professor (January, 2018 present): currently working as an Assistant Professor in the Department of Computer Science, COMSATS Institute of Information Technology, Attock Campus, Pakistan.
- Lecturer (September, 2016 December, 2017): worked as a lecturer in the Department of Computer Science, COMSATS Institute of Information Technology, Attock Campus, Pakistan.
- 3. Research Associate (March, 2013 December, 2014): worked as a Research Associate in a project titled 'Design and Development of Hybrid IPv4 & IPv6 Network for QoS Enabled Video Streaming Multicast Application 'funded by National ICT R&D Fund, Capital University of Science and Technology, Islamabad, Pakistan.

RESEARCH INTERESTS

- Security in Body Area Networks (BANs)
- Security in wireless ad-hoc networks
- Trust, security, and privacy in distributed systems
- Trust Based Security scheme for MANETs
- Trust Adaptation Techniques in MANETs
- Data integrity and Provenance in MANETs
- Formal verification and modeling
- Energy optimization in MANETs
- IPv6 Multicast Communication

PUBLICATIONS

JOURNAL PUBLICATIONS

- 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, 2016, (IF 1.529).
- Muhammad Saleem Khan, Saira Waris, Ihsan Ali, Majid I. Khan, M. H. Anisi, "Mitigation of Packet Loss using Data Rate Adaptation Scheme in MANETs", in Mobile Networks and Applications Journal, 2016, (IF 3.259).
- 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", in Mobile Networks and Applications Journal, 2016, (IF 3.259).
- 4. **Muhammad Saleem Khan**, Daniele Midi, Majid.I.Khan, and Elisa Bertino, "Fine-grained Analysis of Packet Loss in MANETs", in IEEE Access Journal, 2017, (IF 3.24).

Conference Proceedings

- Muhammad Saleem Khan, Mohammad Hossein Anisi, Saira Waris, Ihsan Ali, and Majid.I.Khan, "Data Rate Adaptation Strategy to Avoid Packet Loss in MANETs", in The 1st EAI International Conference on Future Intelligent Vehicular Technologies, Porto, Portugal September 15-16, 2016.
- 2. 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), Tianjin, China, August 23-26, 2016.
- 3. Idrees Ahmed, Abid Khan, **Muhammad Saleem Khan**, and Mansoor Ahmed, "Aggregated Signatures for Chaining: A Secure Provenance Scheme", in 15th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (IEEE TrustCom-16), Tianjin, China, August 23-26, 2016.
- 4. Khizar Hameed, **Muhammad Saleem Khan**, Idrees Ahmed, Zuhaib Uddin Ahmad, Abid Khan, Aun Haider and Nadeem Javaid, "'A Zero Watermarking Scheme for Data Integrity in Wireless Sensor Networks", in 19th International Conference on Network-Based Information Systems (NBiS-2016)), September 7-9, 2016, Czech Republic
- 5. **Muhammad Saleem Khan**, Saira Waris, Idrees Ahmed, and Majid.I.Khan, "A Comprehensive Analysis of Packet Loss in MANETs", in 25th International Conference on Computer Communication and Networks (ICCCN16), 1-4 August, 2016, Hawaii, USA.
- Muhammad Saleem Khan, Daniele Midi, Majid.I.Khan, and Elisa Bertino, "Adaptive Trust Update Frequency in MANETs", in 21st IEEE International Conference on Parallel and Distributed Systems (ICPADS 2015), 14-17 December, 2015, Melbourne, Australia.
- 7. Muhammad Saleem Khan, Daniele Midi, Majid.I.Khan, and Elisa Bertino, "Adaptive Trust Threshold Strategy for Misbehaving Node Detection and Isolation", in 14th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (Trustcom15), 20-22 August 2015, Helsinki, Finland.
- 8. Muhammad Saleem Khan, Qasim Khan Jadoon, Majid I. Khan, "A Comparative Performance Analysis of MANET Routing Protocols under Security Attacks", in 2nd International Conference on Mobile and Wireless Technology (ICMWT2015). June 22- 24, 2015, LNEE, Springer, Bangkok, Thailand.
- 9. Zia Ullah, **Muhammad Saleem Khan**, Idrees Ahmad, Nadeem Javaid, and Majid.I.Khan, "Fuzzy-Based Trust Model for Detection of Selfish Nodes in MANETs", in 30th IEEE International Conference on Advanced Information Networking and Applications (AINA-2016), Switzerland.

HONORS AND AWARDS

- Selected as fellow for MS leading to Ph.D scholarship, funded by Higher Education Commission of Pakistan
- Selected for fellowship to the SANOG XXIII held at Thimphu, Bhutan, 13-21 January 2014.
- Selected as fellow under "International Research Support Initiative Program (IRSIP)", funded by Higher Education Commission, Pakistan.
- Worked as visiting Researcher for 6 months under the supervision of Elisa Bertino in "Center for Education and Research in Information Assurance and Security (CERIAS)", Purdue University, USA.
- Presented a Research paper in ANT-2014 conference, 20-22 June, 2014, Hasselt, Belgium, funded by Higher Education Commission, Pakistan.
- Presented a Research paper in Trustcom-15 conference, 20-22 August, 2015, Helsinki, Finland, funded by Higher Education Commission, Pakistan.
- Received a travel grant to present a Research paper in ICPADS-15 conference,14-17 December, 2015, Melbourne, Australia, funded by Center for Education and Research in Information Assurance and Security (CERIAS), Purdue University, USA.
- \bullet Received APNIC42 youth fellowship, 28^{th} September to 5^{th} October, 2016, Colombo, Sri Lanka.

PROJECTS

- Implementation and simulation of trust based security mechanism in OLSR protocol in NS-2
- Multi-level work Queue algorithm implementation and simulation in NS-2 and NS-3.
- Multicast communication over Hybrid IPv4-IPv6 network deployment and research.

Professional Membership

- IEEE Student Member.
- IEEE Young Professionals

References

Dr. Majid Iqbal Khan, Associate Professor, Department of Computer Science, COMSATS Institute of Information Technology, Islamabad, Pakistan .

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- Phone: (+92)-300-5278858

Dr. Abid Khan, Assistant Professor, Department of Computer Science, COMSATS Institute of Information Technology, Islamabad, Pakistan.

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