

# TOQEER ALI SYED

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## ▷ Education .....

- PhD in Engineering (IT)**  
2014, *Universiti Kuala Lumpur*
- Research Track – May, 2014**  
Domain of Research: System Security (Trusted Computing)  
Thesis Title: N-Call Windows for Efficient and Trustworthy Dynamic Behaviour Attestation
- Master in Computer Science**  
2008, *Department of Computer Science, University of Peshawar*
- Specialization: CS**  
Courses: Advance Study of the Core Computer Science Subjects (Algorithms, Automaton, Computer Architecture, Advance Operating Systems etc.)
- Bachelors of Computer Science**  
2005, *University of Peshawar*
- Specialization: CS**  
Was awarded merit scholarship for 2nd Year.  
Courses included both Computer Science (Programming, Databases, Artificial intelligence, and Hardware) and Mathematics (Numerical Analysis, Calculus, Group Theory, Number Theory) subjects.

## ▷ Refereed Journal Papers (13) .....

- Journal of Grid Computing, 2018**  
*Indexed: JCR, ISI, Impact Factor: 2.8*
- An Automated Permission Selection Framework for Android Platform**  
Journal of Grid Computing, 2018 Indexed: JCR, ISI. Impact Factor: 2.8  
2018(Published).
- Cluster Computing, 2017**  
*Indexed: JCR, ISI, Impact Factor: 2.245*
- Deep neural architectures for large scale android malware analysis**  
Cluster Computing, 2017 Indexed: JCR, ISI. Impact Factor 2.245  
2017(Published).
- Security and Communication Networks, 2016**  
*Indexed: ISI, Impact Factor: 0.72*
- TSSDroid: realization of an efficient and usable TSS API for the Android software stack**  
SECURITY AND COMMUNICATION NETWORKS, 2016 Indexed: ISI. Impact Factor 0.72  
2016(Published).
- Journal of Information Communication Technologies and Robotic Applications, 2018**  
*HEC recognized High Ranked X-Category journal*
- Z Notation Formalization of Blockchain Healthcare Document Sharing Based on CRBAC**  
Journal of Information Communication Technologies and Robotic Applications, 2018 (Published).
- International Journal of Computer Science and Network Security, 2018**  
*Indexed: ISI*
- A Comparison of SVM with Deep Learning Models for Large-scale Intents Analysis**  
International Journal of Computer Science and Network Security, 2018, 2018 Indexed: ISI  
2018(Published).
- International Journal of Scientific and Engineering Research, 2018**  
*Indexed: ISI, Impact Factor: 3.2*
- Billiard Algorithm for the K-Coverage Deployment of Sensor Networks**  
International Journal of Scientific and Engineering Research, 2018, Impact Factor 4.2  
2018(Published).
- Journal of Engineering and Applied Sciences, 2018**  
*Indexed: Scopus*
- Malware Analysis and Detection Approaches: Drive to Deep Learning**  
Journal of Engineering and Applied Sciences, 2018, Indexed: Scopus Index  
2018 (Published).
- Cluster Computing, 2017**  
*Indexed: JCR, ISI, Impact Factor: 2.245*
- Trust in IoT: Dynamic remote attestation through efficient behavior capture**  
Cluster Computing, 2017 Indexed: JCR, ISI. Impact Factor 2.245  
2017(Published).
- International Journal of Scientific and Engineering Research, 2018**  
*Impact Factor: 4.2*
- Event Finder Based on Current GPS Location: The city of Madinah as Use-case**  
Cluster Computing, 2018, Indexed: ISI, Impact Factor: 4.4  
2018(Published).

International Journal of Engineering & Technology, 2017  
*Scopus Indexed*

Deep Convolutional Generative Adversarial Networks for Intent-based Dynamic Behavior Capture  
International Journal of Engineering & Technology, 2017  
2017(Accepted).

The Journal of Supercomputing, 2017  
*Indexed: JCR, ISI, Impact Factor: 1.61(Not considered for promotion)*

Design and implementation of an attestation protocol for measured dynamic behavior  
The Journal of Supercomputing (J SUPERCOMPUT), 2017 Indexed: JCR, ISI. Impact Factor 1.61  
2017(Published).

Information-An International Interdisciplinary Journal, 2011  
*Indexed: ISI, Impact Factor: 0.32(Not considered for promotion)*

A scalable and privacy preserving remote attestation mechanism  
Information-An International Interdisciplinary Journal. Indexed: Scopus. 2011 (Published)

An International Interdisciplinary Journal, 2011  
*Indexed: ISI, IF: 0.32(Not considered for promotion)*

A FODA Oriented Approach to Architecture based Ripple Effect Analysis  
Information Journal: An International Interdisciplinary Journal, Vol 14(6), pp2139-2150. (Published)

▷ **Complete List of Conference Publications ( 11 )** .....

International (IEEE), 2018  
*ISDFS-2018 - Country*

Android Application Behavioral Analysis through Intent Monitoring  
**6th** International Symposium on Digital Forensic and Security (ISDFS), 2018.(Published)

International (ICICO), 2018  
*Country: Thailand*

An Extended Permission model for Hyperledger Composer  
**1st** International Conference on Intelligent Computing & Opetimization, October 4-5, 2018.(Accepted)

International (IEEE), 2017  
*Country*

Assessment of Source Data Vulnerability to Reproduction in Android Applications  
9th International Conference on Computational Intelligence and Communication Networks (Published)

International (IEEE), 2015  
*ICCC'15 - Riyadh, KSA*

Towards Secure Instance Migration in the Cloud  
IEEE International Conference on Cloud Computing ICCS 2015 (ICCC 2015). Riyadh, KSA. April, 2015.(Published)

International (SDIWC), 2015  
*Serdang, Malaysia*

On Green and Energy-Aware GPU Computing for Scientific Applications  
Proceedings of Third International Conference on Green Computing, Technology and Innovation (ICGCTI2015), Serdang, Malaysia, 2015. (Published)

International (Springer, LNCS), 2016  
*ICCSA'16 - Beijing, China*

Efficient, Scalable and Privacy Preserving Application Attestation in a Multi Stakeholder Scenario  
The **16th** International Conference on Computational Science and Its Applications (ICCSA 2016). Beijing, China. July 4-7, 2016.(Published)

International (Springer, LNCS), 2016  
*COMPSE'16 - Penang, Malaysia*

A Complete Behavioral Measurement and Reporting: Optimized for Mobile Devices  
EAI International Conference on Computer Science and Engineering, 2016). Penang, Malaysia. November 11-12, 2016.(Published)

International (IEEE), 2016  
*ICICTM'16 - Kuala Lumpur, Malaysia*

Providing Efficient, Scalable and Privacy Preserving Verification Mechanism in Remote Attestation  
International Conference on Information & Communication Technology 2015 (ICICTM 2016). Kuala Lumpur, Malaysia. May, 2016.(Published)

International (ACM), 2014  
*IMCOM'14 - Siem Reap, Cambodia*

Design and implementation of an efficient framework for behaviour attestation using n-call slides  
ACM Conference on Ubiquitous Information Management and Communication (IMCOM 2014). Siem Reap, Cambodia. January, 2014.

International (ACM), 2013  
*ICUIMC'13 - KL, Malaysia*

Realization Of Dynamic Behavior Using Remotely Verifiable N-Call Slides In Unix Process Execution Trace  
ACM Conference on Ubiquitous Information Management and Communication (ICUIMC 2013). Kuala Lumpur, Malaysia. March, 2013.

International (IEEE Xplore), 2013  
*ICISA - Bangkok, Thailand*

End to End Verification Mechanism for Dynamic Behavior Attestation  
Information Science and Applications (ICISA), 2013 International Conference on. (IEEE Xplore 2013). Thailand

International (ACM), 2012  
ICUIMC'12 - KL, Malaysia

**A sense of others: behavioral attestation of UNIX processes on remote platforms**  
ACM Conference on Ubiquitous Information Management and Communication (ICUIMC 2012). Kuala Lumpur, Malaysia. March, 2012.

▷ **Experience** .....

**Associate Professor**  
April 2019 - Current

**Islamic University in Madinah, Madinah**  
Completed all the requirement of Associate Professor in Jan 2019 and final promoted to Associate Professor in April 2019. Job responsibilities include curriculum design for under graduate, teaching under and post graduate students in the area of , Information Technology, Information Security, Networks and Systems. Also working as a member of the Research team and Accreditation process of the University.

**Assistant Professor**  
November 2016 - April 2019

**Islamic University in Madinah, Madinah**  
Joined Madinah University as Assistant Professor in the department of computer and Information System. Job responsibilities include curriculum design for under graduate, teaching under and post graduate students in the area of , Information Technology, Information Security, Networks and Systems. Also working as a member of the Research team and Accreditation process of the University.

**Senior Lecturer (Equivalent to Assistant Professor)**  
Aug 2014 - Current

**University Kuala Lumpur, Networks and Systems**  
joined UniKL as senior lecturer in the department of networks and systems. Job responsibilities include teaching under and post graduate students in the area of Information Security, Networks and computer engineering. So far taught Computer Organization, Operating System, Cryptography, Assembly Language, and Programming subjects.

**Visiting Lecturer**  
Spring 2014

**University Kuala Lumpur, Networks and Systems**  
Taught as a visiting lecturer in University of Kuala Lumpur for the spring semester 2014.

**Graduate Assistant**  
2011 - 2014

**University Kuala Lumpur, Institute of Research and Postgraduate Studies**  
Apart from the research, taught several courses to **BS and Diploma** Students. Job responsibilities include teaching Graduate and Diploma level students in the areas of Software Engineering, Secure Systems, Applied Algorithms, MIS, Advanced Programming, Operating System and Computer Networks.

**Freelance System Administrator**  
2010 - 2011

*Several Globally Dispersed Clients*  
Several Globally Dispersed Clients Worked as a freelance developer and system administrator through the popular outsourcing portals such as **oDesk** and **Elance**. Projects included design and deployment of Voice over IP (VoIP) solutions, Linux System Administration, Cloud-based hosting and project deployment, bash scripting and many more. The current score on oDesk is 4.97/5.0 with more than 3500 hours of billed time and excellent customer feedback. Work profiles can be seen at: <https://www.upwork.com/o/profiles/users/~01ab107798560c2747/>

**R&D Scholar**  
2009 - 2010

**Security Engineering Research Group, Institute of Management Sciences, Peshawar, Pakistan.**  
Under Research Project: "Extending Android Security through Intent Policies" (EASIP).  
Job responsibilities include Android Mobile Application Development.  
Deployment of IMS (IP Multimedia Subsystem) Next Generation Networks.  
Deployment of VoIP Related Technologies and Design of Internet Telephone Service Provider.

**IT Officer**  
2008 - 2009

**JSI Research & Training Institute, Islamabad, Pakistan**  
Build IT infrastructure of JSI office. Deployed Linux & windows servers  
Coordination/Analysis and Testing of JSI internal website for Monitoring and Reporting.  
Ensure safe and secure working of office networks and adopt necessary measure to keep the networks/workstations free from viruses  
Ensure safe and secure backup and storage of organizational data

**System Administrator,**  
2007 / 2008

**Nettech Pvt. Limited**  
Call-center Management.  
Installing configuring maintaining and Troubleshooting Asterisk, Asterisk Protocols (SIP, IAX), Dial plan Configuration, IVR Dial plan, Voicemail, CDR, Predictive Dialer , CMS.  
Configuration of Peer Asterisk with 2Com to Provide Support for its customers

▷ **Supervision of Students** .....

**Master and PhD Students**  
Year: 2018

**Field: Distributed and Trusted Computing, Big Data, IoT**  
Supervised Master students and currently supervising PhD students in area of Blockchain, Deep Learning, Distributed computing, Cyber Security, Big Data, IoT, and Android at University of Kuala Lumpur

**Under Graduate**  
Year: 2016

**Field: VoIP, Information Security, Machine Learning and Web**  
Supervising many students of under graduate in area of Voice over IP, Web, Machine Learning and Information Security.

## ▷ Skills .....

<i>Deep Learning</i>	Recently shifted my trend towards traditional machine learning models and recent state-of-the-art technologies for large scale data processing and classification, such as, Deep Learning, Convolutional Neural Networks, Generative Adversarial Networks, LSTM, DCGAN etc
<i>Security</i>	Expertise in state of the art technologies such as System Security, Blockchain, Smart Contracts, Android, Trusted Platform Module (TPM)/(TXT) and Trusted Computing, the Linux kernel, Security Enhanced Linux and several other LSM-based security architectures, protocols and algorithms.
<i>Android, VoIP, Cloud and Linux</i>	Having experience in deploying large scale VoIP systems including Asterisk, OpenSIP, Kamailio, IMS(IP Multimedia Subsystems and Billing for ITSPs). Also having experience in deploying large scale Application servers on Linux. Deployed system on high availability cluster as well as Amazon AWS/OpenStack cloud infrastructure. Having hands on experience in securing and optimizing Linux based servers.
<i>Programming Languages</i>	Skilled and experienced in high and low level languages including Assembly Language, PHP, C/C++, Ruby, Python etc. Also very well versed with version control systems such as SVN, Git and mercurial.
<i>System Analysis and Design</i>	Proficiency in system analysis and design of fairly complex system including Linux Kernel, ERPs for SMEs, e-commerce and CMSs. Experienced with large-scale production-level systems.
<i>RHCE &amp; RHCT Certification</i>	RedHat Certified Engineer in RHEL 5 and RHCT certified in RHEL 4

## ▷ Grants Awarded .....

<i>Short Term Research Grant/ Ref: UniKL/CoRI/str5137</i>	Providing an Efficient and Scalable Platform for Big Data Attestation: One PhD student is working under the aforementioned title grant. Bought TxT enabled systems and so far setup multi node Hadoop cluster on these desktops.
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## ▷ Research Projects Completed .....

<i>Short Term Research Grant/ Ref: UniKL/CoRI/str5137 – Jan 2016</i>	Providing an Efficient and Scalable Platform for Big Data Attestation: Funded by research Deanship of Universiti Kuala Lumpur
<i>Research Project 2017-18</i>	Location-Based Information System in Madinah for Residents and Visitors is accepted and funded by Deanship of Scientific Research, Islamic University of Madinah worth of SAR 22000, KSA 2017/18
<i>Project funded by Deanship of Scientific Research, Islamic University of Madinah worth of SAR 23000, KSA 2017/18</i>	An Automated Permission Selection Framework for Android Platforms

## ▷ Research Projects Under Review .....

<i>Submitted to the Deanship of Scientific Research, Islamic University of Madinah worth of SAR 24000 for Year 2018-19</i>	BlockU: Extended Usage Control in and for Blockchain
<i>Submitted to the Deanship of Scientific Research, Islamic University of Madinah worth of SAR 24000 for Year 2018-19</i>	B-Health: An Execute-Order-validate Architecture for Efficient and Privacy-Preserving HealthCare Record Sharing
<i>Project submitted for funding in King Abdul-Aziz City of Science and Technology (KACST) in 2017</i>	Secure and Privacy Preserving, Globally Integrated Healthcare Record Sharing System for Pilgrims in Saudi Arabia. Principle investigator Approx SAR=600000
<i>Project submitted for funding in King Abdul-Aziz City of Science and Technology (KACST) in 2017</i>	Multi-Sensors Based Infrastructure Deployment for Services and Analytics of Extremely Large and Dense Crow. P-Co, Approx SAR=750000

## ▷ References ( 2 ) .....

**Dr. Mohammad Nauman**  
Postdoctoral Scientist, Max Planck  
Institute for Software Systems,  
Germany

Email: mnauman@mpi-sws.org \*  
Phone: +92 323 936 6136  
Relationship: Colleague

**Dr. Tamleek Ali Tanweer**  
Assistant Professor, IMSciences,  
Peshawar

Email: tamleek@imsciences.edu.pk \*  
Phone: +92 333 912 6987  
Relationship: Colleague

▷ **Research Statement** .....

My research work is aimed at security and is related to the application of Trusted Computing concepts (such as remote attestation) in real-world situations as well as in scenarios of academic interest. Apart from that, my research is inclined towards utilization of machine learning algorithms for remote attestation. One of my current research is going on secure cloud instance migration using Trusted Computing constructs. I have several publications related to this domain in conferences of international repute and work in collaboration with some of the industry leaders in this area. One of the guiding principles of my research is the development of proof-of-concept implementations to justify the techniques developed in my research papers.

My aim through this research is not only to contribute to the global knowledge but also to enable the local market and industry in development and utilization of better techniques and technologies.

▷ **Teaching Statement** .....

IT industry has the highly competitive market in today's world. In computer science, a good teacher considers the one who makes the basis of the students by providing the theory behind the subject as well as to provide a step-by-step process to realize a concept in a standardized way. My vast experience in industry as well as indepth knowledge of basic building blocks of computer science enables me to convey the complete picture of a subject to my students. That enables the students to get the power of visualization and predictions for the future development and research.

Above all, my experience in teaching has shown me that the best way to gain knowledge is to pass it on. I learn through my teaching and convey my knowledge to all those who have helped me gain it.