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<b><i>Experience</i></b>			
<b>Sr. No.</b>	<b>Department</b>	<b>Post held</b>	<b>Duration</b>
1.	Department of Computer Science, International Islamic University Islamabad	Professor and Chairman	2008 – to-date
2.	Fraunhofer Open Communication (FOKUS) Institute, Berlin, Germany	Research Scientist	4.07.2005 – 31.01.2008 (2½years) along with Sr. No. 3.
3.	Department of Computer Science, International Islamic University Islamabad	Assistant Professor (Computer Science)	31.10.1998 – 31.07.2008 (about 10 years)
4.	Dr A.Q. Khan Research Lab (KRL) Rawalpindi	Senior Scientific Officer (SSO)/ Scientific Officer	23.06.1992 – 31.10.1998 (about 6½ years )
5.	Centre for Asian Studies, Islamabad	Computer Instructor	01.03.1990 – 29.02.1992 (2 years)
6.	Gallup Pakistan, Blue Area, Islamabad	Computer Programmer	01.03.1990 – 31. 08.1991 (1½ year ) parallel with Sr. No. 5.

## Education

Name of Exam.	Passing Year	Marks Obtained	Marks %	Div./ Grade	Major Subjects	Board/ University
Matric	1983	696/850	81.9	1 <sup>st</sup>	Physics, English, Mathematics, Chemistry, Urdu, Biology,	B.I.S.E. Bahawalpur
F.Sc. Pre-Engg.	1985	733/1100	66.6	1 <sup>st</sup>	Physics, English Mathematics, Chemistry, Urdu,	B.I.S.E. Bahawalpur
B.Sc. Pre-Engg.	1987	628/800	78.5	1 <sup>st</sup>	Physics, Applied & Pure Mathematics, English, Islamiat, Pakistan Studies	Islamia University Bahawalpur
M.Sc. Electronics (Communication)	1990	3.7 G.P.A	76.4	1 <sup>st</sup>	Electronics, DSP, DLD&CA, S/Engg, Networking, Data Acq. & Control, Communication, Laser & Fiber Optics	Quaid-e-Azam University, Islamabad
MS/M.Phil. (Information Technology) (Leading to PhD)	2000	-	-	-	Communications and Networks etc.	Hamdard University, Islamabad, Campus, & QAU
Ph.D. (Computer Science) (Next Generation Networks Security)	2007	1.0 (sehr gut)	A+	1 <sup>st</sup>	Research Thesis on "Secure Service Provisioning (SSP) Framework for IP Multimedia Subsystems (IMS)"	Technical University (TU) Berlin, Germany

## Honors & Awards

1. **Fifth Annual (ISC)<sup>2</sup> Asia-Pacific Information Security Achievements (ISLA) Award** by International Information Security System Consortium (ISC)<sup>2</sup> Asian Advisory Board, against the Category **“Senior Information Security Professional of Asia 2011”**, at Jakarta, Indonesia, on 26<sup>th</sup> July 2011. The award is given on the basis of research and development contribution and recognition in the field on Information Security at International Level.
2. **“Best University Teacher Award 2008”**, by Higher Education Commission (HEC), Islamabad, Pakistan, on 21<sup>st</sup> August 2009. The award is conferred on the basis on academic, research and creative work performance for the year 2008.
3. **“HEC-DAAD Fellowship Award 2004”**, for higher studies of Universities & Degree Awarding Institutions Teachers of Pakistan in Germany Programme, for three years (2004-2007).
4. **“National IT Excellence Award 2000”** by NCR Pakistan, in recognition for excellence achieved the field of IT Research and Development, for the period of 1997-2000 at Convention Center Islamabad, on 25<sup>th</sup> November 2000.

## Books & Others (If Any)

### Books Chapters and Encyclopedia Contribution

1. M. Sher, F. C. Gouveia, T. Magedanz, “IP Multimedia Subsystem (IMS) for Emerging All-IP Networks”, Encyclopedia of Internet Technologies and Applications, ISBN: 978-1-59140-993-9, pp 249-256, Mário Freire and Manuela Pereira (editors), IGI Global - Information Science Reference (publisher), Hershey, New York, USA, August 2007.
2. T. Magedanz, M. Sher, “IT-Based Open Service Delivery Platforms for Mobile Networks: From CAMEL to the IP Multimedia System”, The Handbook of Mobile Middleware (Chapter 37), Paolo Bellavista and Antonio Corradi (editors), Cat. # AU3833, ISBN: 0849338336, pp 1001-1037, October 2006, © Taylor & Francis CRC Press, NW, FL 33487, USA, 2006.
3. M. Sher, T. Magedanz “IMS – A Secure Architecture for All IP Networks”, IMS Handbook: Concepts, Technologies, and Services (Chapter 1), Editors: Syed Ahson, iDEN Mobile Devices and Emerging Standards Motorola Inc. Plantation, Florida, 33322 and Mohammad Ilyas, College of Engineering & Computer Science, Florida Atlantic University Boca Raton, Florida 33431, © Taylor & Francis CRC Press, NW, FL 33487, USA 2007.

## Publications

Title/Journal/Year

### 1) Journal Publications (2011-2005)

1. Zeeshan Shafi Khan, Nazish Munawar, Muhammad Sher, Khalid Rashid, Aneel Rahim, “An Extended Push to Multimedia Service for IP Multimedia Subsystem” International

Journal of Innovative Computing, Information and Control, vol 7, issue 8, August 2011 (**Impact Factor 2.93**).

2. Basit Raza, Abdul Mateen, Mian M. Awais, Muhammad Sher, "A Survey on Autonomic Workload Management: Algorithms, Techniques and Models" Journal of Computing (**Impact Factor 0.2**), 2011, Volume 3, Issue 6, June 2011, ISSN 2151-9617.
3. Zeeshan Shafi Khan, Khalid Rashid, Muhammad Khurram Khan, Muhammad Sher, "An Extended Intrusion Detection and Prevention System for Next Generation Network Application Plane pp.135-150." Information, Volume 14, Issue 1, 2011 (**Impact Factor 0.09**).
4. Muazzam A. Khan, Ghalib A. Shah, Muhammad Sher, "A QoS Based Multicast Communication Framework for Wireless Sensor Actor Networks (WSANs)", International Journal of Innovative Computing, Information and Control, Volume 7, Number 1, January 2011 (**Impact Factor 2.93**).
5. Aneel Rahim, Fahad T. Bin Muhaya, Muhammad Sher and Tai-hoon Kim, Validation of Secure Broadcast Framework using VANETs, Information:, Vol.14, No.1, Jan.2011, pp.151-156. (**Impact Factor 0.09**).
6. Muhammad Imran Razzak, Syed Afaq Husain, Muhammad Khurram Khan and Muhammad Sher, Handling Diacritical Marks for Online Arabic Script Based Languages Character Recognition using Fuzzy c-mean Clustering and Relative Position, Information: Vol. 14, No. 1, Jan. 2011, pp.157-166. (**Impact Factor 0.09**).
7. Zeeshan Shafi Khan, Muhammad Sher, Khalid Rashid, Aneel Rahim, Farzana Azam, "Presence Enabled Secure Architecture for IP Multimedia Subsystem based Instant Messaging" Scientific Research and Essays, ISSN 1992-2248, (**Impact Factor 0.30**), Academic Journals, 2010.
8. Muhammad Imran Razzak, Fareeha Anwar, Syed Afaq Husain, Abdel Belaid, Muhammad Sher "A Hybrid Approach: HMM and Fuzzy Logics for Online Urdu Script Character Recognition", Elsevier Knowledge-Based System, ISSN: 0950-7051, (**Impact Factor 1.308**), Vol. 23, issue 8, pp 914-923, December 2010.
9. Aneel Rahim, Zeeshan Shafi Khan, Fahad T Bin Muhaya, Muhammad Sher, Tai-Hoon Kim, "Sensor Based Framework for Secure Multimedia Communication in VANET" Sensors Journal, ISSN 1424 – 8220, Vol. 10, Issue 11, (**Impact Factor 1.821**), pp 10146-10154, November 2010.
10. Aneel Rahim, Zeeshan Shafi Khan, Imran Ahmad, Muhammad Sher, "Information Sharing in VANETs", International Journal of Computers, Communications & Control (IJCCC), ISSN 1841 – 9836, (**Impact Factor 0.373**), Volume 5, Issue 5, pp 892-899, 2010.
11. Zeeshan Shafi Khan, Muhammad Sher, Khalid Rashid, Aneel Rahim, "Presence Based Conditional Call Setup for IP Multimedia Subsystem", International Journal of Physical Sciences, ISSN 1992 – 1950, Vol. 5(8), (**Impact Factor 0.55**), pp. 1248-1255, August 2010.
12. Muhammad Imran Razzak, Syed Afaq Hussain, Muhammad Sher "Locally Baseline detection for Online Arabic Script based Languages Character Recognition" International Journal of Physical Sciences, ISSN 1992 – 1950, Vol. 5(6), (**Impact Factor 0.554**), pp 955-959, July 2010.
13. Rehan Shafi, Aneel Rahim, Fahad bin Muhaya, Shahzad Ashraf, Muhammad Sher, "Secure Mechanism for Handling Targeted Attacks in Infrastructure Based Wireless Mesh Networks",

Information Security and Assurance, Communications in Computer and Information Science, Vol. 76, pp 233-240, 2010.

14. Aneel Rahim, Zeeshan Shafi Khan, M.A. Ansari, Muhammad Sher, "Enhance Relevance based approach for Network Control Relevance", Infomatica: An International Journal of Computing and Informatics, ISSN: 0350-5596, Vol 34, No.2, pp 223–226, 2010.
15. Muhammad Imran Razzak, Rubiyah Yusaf, Syed Afaq Husain and Muhammad Sher, "Rule Based Online Urdu Character Recognition", ICIC Express Letters: An International Journal of Research and Surveys, ISSN 1881-803X, Indexed by Ei Compendex (Elsevier) & INSPEC (IET), Vol. 4, No. 2, pp 571-576, April 2010.
16. Muhammad Imran Razzak, S.A. Hussain, Abid Ali Minhas and Muhammad Sher, "Collaborative Image Compression in Wireless Sensor Networks", International Journal of Computational Cognition, ISSN 1542-8060, vol.8, no.1, pp 24-29, March 2010.
17. Khan Farhan Fafat, Muhammad Sher, "Survey Report – State of the Art in Digital Steganography Focusing ASCII Text Documents", International Journal of Computer Science and Information Security (IJCSIS), ISSN: 1947-5500, Vol.7, No. 2, pp 63-71, March 2010.
18. Zeeshan Shafi Khan, Saira Shokat, Aneel Rahim, Muhammad Sher, "Ordering and Organization of SIP Requests within IMS Core by Using Load Awareness and Priority" International Journal of Recent Trends in Engineering, ISSN: 1797-9617, Vol 2, Issue 3 pp: 24-26, 2009.
19. Aneel Rahim, Imran Ahmad, Zeeshan Shafi Khan, Muhammad Sher, "A Comparative Study Of Mobile And vehicular Adhoc Networks" International Journal of Recent Trends in Engineering, ISSN: 1797-9617, Vol 2, Issue 3 pp: 125-127, 2009.
20. A. Rahim, F. B. Muhaya, M. Sher, Z. S. Khan and I. Ahmad, "Performance Evaluation of Broadcast Techniques in VANETs", Indian Journal of Science and Technology, ISSN: 0974-6846, Vol.2, No. 10, pp 52-55, October 2009.
21. Zeeshan Shafi Khan, Muhammad Sher, Khalid Rashid, Aneel Rahim, "A Three Layer Secure Architecture for IP Multimedia Subsystem Based Instant Messaging", Information Security Journal: A Global Perspective, ISSN: 1939-3547, Volume 18, Issue 3, pages 139 – 148, September 2009.
22. M. I Razzak, S.A.Hussain, A. Belaid, M. Sher "Multi-font Numerals Recognition for Urdu Script based Languages" International Journal of Recent Trends in Engineering, ISSN: 1797-9617, Vol 2, Issue 3 pp: 70-72, 2009.
23. S. A. Hussain, M. I Razzak, M. Sher "Energy Efficient Image Compression in Wireless Sensor Networks", International Journal of Recent Trends in Engineering, ISSN: 1797-9617, Vol 2, Issue 1, pp: 117-120, 2009.
24. M. Sher, T. Magedanz, "Developing Intrusion Detection and Prevention (IDP) System for IP Multimedia Subsystem (IMS) Enabler", Journal of Information Assurance and Security (JIAS), Vol 2, issue 2, ISSN: 1554-1010, pp 97-107, © Dynamic Publisher Inc. Atlanta, GA 30362-0654, USA, 2007.
25. M. Sher, T. Magedanz, "A Vulnerabilities Analysis and Corresponding Middleware Security Extensions for Securing NGN Applications", Elsevier Journal of Computer Network, ISSN 1389-1286, Vol. 51, issue 16, (**Impact Factor 1.201**), pp 4697-4709, November 2007.

26. M. Sher, T. Magedanz, "Secure Access to IMS Services Based on Generic Bootstrapping Architecture (GBA) for Next Generation Networks", International Engineering Consortium (IEC) Comprehensive Technical Report on "Business Models and Drivers for Next Generation IMS Services", ISBN: 978-1-931695-55-8, pp 249-260, Senior editor: André Sulluchuco, @ IEC, Chicago, USA, May 2007.
27. M. Sher, T. Magedanz: "Security Associations Management (SAM) Model for IP Multimedia System", in IFIP International Federation for Information Processing, Volume 229, Network Control and Engineering for QoS, Security and Mobility, IV, ed. D. Gaiiti, ISSN: 1571-5736 / 1861-2288 (Internet), ISBN: 10: 0-387-49689-0, ISBN: 13: 978-0-387-49689-4, pp. 311-325, Springer-Boston, March 2007.
28. M. Sher, T. Magedanz, "Developing Network Domain Security (NDS) Model for IP Multimedia Subsystem (IMS)", Journal of Networks, ISSN: 1796-2056, Vol.1, No.6, pp.10-17, © Academy Publisher, Oulu, Finland, November/December 2006.
29. M. Sher, T. Magedanz, "Development of IMS Privacy & Security Management Framework for FOKUS Open IMS Testbed", Journal of Mobile Multimedia, IP Multimedia Subsystem (IMS), Vol. 2, No.3, 225-258, ISSN: 1550-4646 © Rinton Press, Inc., New Jersey, USA, September 2006.
30. M. Sher, M. Musharraf, T. Magedanz, "Randomized Quantum Key Distribution", Journal of Optical Communications, ISSN: 0173-4911, Vol. 27. 5/2006, pp 278-281. © Fachverlag Schiele & Schoen GmbH, Berlin, Germany, 2006.

## 2) International Conferences, Symposiums and Workshops Proceedings

31. Zeeshan Shafi Khan, Nabila Akram, Khaled Alghathbar, Muhammad Sher, Rashid Mhmood, "Secure Single Packet IP Traceback Mechanism to Identify the Source", Proceeding of 5<sup>th</sup> International Conference for Internet Technology and Secured Transactions, ICITST 2010, London, UK, Nov 7-10, 2010.
32. Basit Raza, Abdul Mateen, Muhammad Sher, Mian Muhammad Awais, Tauqeer Hussain, "Autonomic View of Query Optimizer in Database Management Systems", Proceeding of IEEE 8<sup>th</sup> ACIS International Conference on Software Engineering Research, Management and Applications, pp 3-7, 2010.
33. Khan Farhan Rafat, Muhammad Sher, "IST: Improved Stganography for HTML", Proceeding of 9<sup>th</sup> European Conference on Information Warefare and Security, pages 6, Greece, 1-2<sup>nd</sup> July, 2010.
34. Basit Raza, Abdul Mateen, Muhammad Sher, Mian Muhammad Awais, Tauqeer Hussain, "Autonomicity in Oracle Database Management System", proceeding of IEEE International Conference on Data Storage and Data Engineering, pp 296-300, 2010.
35. Muazzam Ali Khan, Ghalib A. Shah, Muhammad Ahsan, Muhammad Sher, "An Efficient and Reliable Clustering Algorithm for Wireless Sensor Actor Networks (WSANs), Proceeding of IEEE, pp 332-337, 2010.
36. Zeeshan Shafi Khan, Khaled Alghathbar, Muhammad Sher, Khalid Rashid, "Issues of Security and Network Load in Presence – A Survey", Proceeding of FGIT SecTech/DRBC 2010, CCIS 122, pp 224-230, @ Springer-Vlag Berlin Heidelberg, 2010.

37. Muazzam A. Khan, Cory C. Beard, Muhammad Sher, "Comparison of Different Localization Approaches for Wireless Sensor Actor Networks (WSAN)", Proceeding of International Conference on Computer Communications and Networks (CCN-10), pp 104-110, 2010.
38. Rahim, Z.S. Khan, F.B. Muhaya, M. Sher, M.K. Khan, "Information Sharing in Vehicular AdHoc Network", Proceeding of International Conference on Computers, Communications & Control, ICCC 2010, Vol. 2, ISSN 1844-4334, May 12-16, 2010.
39. Zeeshan Shafi Khan, Muhammad Sher, Khalid Rashid, Imran Razzak, "Towards Security and Enrichment of the IP Multimedia Subsystem Based Multiparty Conference" International Conference on Communication Systems and Applications, International Multiconference of Engineers and Computer Scientists, IMECS 09, Vol. 1, Hong Kong, 18-20 March, 2009.
40. Aneel Rahim, Imran Ahmad, Muhammad Sher, "Relevance Based Approach with Virtual Queue Using 802.11e protocol for Vehicular Adhoc Networks" The 2nd IEEE International Conference On Computer, Control & Communication, Karachi, 14 Feb 2009.
41. Aneel Rahim, Muhammad Sher, Muhammad Shoaib, "PBBS: Priority Based Broadcast Scheme for VANETs" 6th IEEE International Bhurban Conference On Applied Sciences & Technology", Islamabad, 5-8 January 2009.
42. Zeeshan Shafi Khan, Farzana Azam, Muhammad Sher, Khalid Rashid "Enhanced and Secure Registration Procedure for IP Multimedia Subsystem", 6th IEEE International Bhurban Conference on Applied Sciences & Technology", Islamabad 5– 8th Jan 2009.
43. Aneel Rahim, Muhammad Sher , Adeel Javed, Imran Ahmad, Rehman Hameed Khan, "Performance Analysis of TCP in VANETs by Using 802.11e" 16th IEEE International Conference on Networks (ICON 2008) New Delhi, India Dec. 12th to 14th, 2008.
44. Aneel Rahim, Adeel Javed, Imran Ahmad, Muhammad Sher, "Broadcast Approaches in VANETS" Mosharaka International Conference on Communications, Networking and Information Technology Amman - Jordan, 5-7 December 2008.
45. Muhammad Alam, Muhammad Sher, S. Afaq Hussain, "VANETs Mobility Model Entities and Its Impact", 4<sup>th</sup> IEEE International Conference on Emerging Technologies, Rawalpindi, Pakistan, 2008.
46. Yacine Rebahi, **Muhammad Sher**, Thomas Magedanz, "Detecting flooding attacks against IP Multimedia Subsystem (IMS) Networks" Proceeding of AICCSA'2008, pp.848-851.
47. Adel Al-Hezmi, Fabricio Carvalho de Gouveia, **Muhammad Sher**, Oliver Friedrich, Thomas Magedanz, "Provisioning IMS-based Seamless Triple Play Services over Different Access Networks", Proceeding of NOMS'2008, pp.927-930.
48. M. Sher, T. Magedanz, "SQL Injection and Password Guessing Detection and Mitigation for Next Generation IMS", IEEE Workshop on Monitoring, Attack Detection and Mitigation, MonAM07 Proc. IEEE, ISBN: 978-1-4244-1842-8, ISSN: 1862-7803, pp 59-64, LAAS-CNRS, Toulouse, France, 5-6 November 2007.
49. M. Sher, T. Magedanz, "Mobile Multimedia Broadcasting Vulnerability Threats, Attacks and Security Solutions", IFIP/IEEE 9th International Conference on Mobile and Wireless Communications Networks, MWCN07 Proc. IEEE, ISBN: 978-1-4244-1719-3, pp 56-60, Cork, Ireland, 19-21 September 2007.

50. M. Sher, T. Magedanz, "Protecting IP Multimedia Subsystem Service Delivery Platform from Time Independent Attacks", IEEE Third International Symposium on Information Assurance and Security, IAS 2007 Proc. IEEE, ISBN 0-7695-2876-7, pp 171-176, Manchester, United Kingdom, 29-31 August 2007.
51. M. Sher, T. Magedanz, "3G-WLAN Convergence: Vulnerability, Attacks Possibilities and Security Management Model", IEEE/International Conference on Availability, Reliability & Security organized by Dexa Association & ENISA (European Network and Information Security). ARES 2007 Proc. IEEE, ISBN: 0-7695-2775-2, pp 198-205, Vienna, Austria, April 10-13, 2007.
52. M. Sher, T. Magedanz, "Secure Access to IP Multimedia Services Using Generic Bootstrapping Architecture (GBA) for 3G & Beyond Mobile Networks", 2<sup>nd</sup> ACM International Workshop on QoS and Security for Wireless and Mobile Networks (Q2SWinet 2006), in conjunction with 9<sup>th</sup> ACM/IEEE International Symposium on Modeling, Analysis, Simulation of Wireless and Mobile System. Q2SWinet06 Proc. ACM, ISBN: 1-59593-486-3 pp 17-24, Torremolinos, Malaga, Spain, October 2-6, 2006.
53. M. Sher, S. Wu, T. Magedanz, "Security Threats and Solutions for Application Server of IP Multimedia Subsystem (IMS-AS)", IEEE/IST Workshop on Monitoring, Attack Detection and Mitigation. MonAM06 Proc. IEEE/IST, ISBN: 3-937201-02-5, ISSN: 1862-7803, Diadem Firewall Project (FP6 IST-2002-002154), pp 38-44, Tuebingen, Germany, September 28-29, 2006.
54. M. Sher, T. Magedanz, W.T. Walter, "Enhanced SIP Security for Air Interface (Gm) between IMS Core and Client", IST/IEEE-Africa 2006 Conference (Information Society Technologies in Africa) supported by the European Commission under IST Program of FP6. IST-Africa Proc. ISBN 1-905 824-01-7, Proc. on CD, Pretoria, South Africa, 03 - 05 May 2006.
55. M. Sher, T. Magedanz, W.T. Walter, "Inter-Domains Security Management (IDSIM) Model for IP Multimedia Subsystem (IMS)", IEEE/International Symposium on Frontiers in Availability, Reliability & Security (FARES 2006) in conjunction with 1<sup>st</sup> International Conference on Availability, Reliability & Security. ARES06 Proc. IEEE, ISBN 978-0-7695-2567-9, pp. 502-509, Vienna, Austria, April 20-22, 2006.
56. M. Sher, T. Magedanz: "Security Management Model for IP Multimedia System (IMS)", IFIP TC6 International Conference on Network Control and Engineering for QoS, Security and Mobility (NetCon05), Working Groups WG6.2, WG6.6, WG6.7 & WG6.8 and France Telecom, Conference Proc. on CD, Lannion, France, November 14-18, 2005.
57. M. Sher, T. Magedanz: "Network Access Security Management (NASM) Model for Next Generation Mobile Telecommunication Networks", IFIP/IEEE 2<sup>nd</sup> Workshop on Mobility Aware Technologies and Applications - Service Delivery Platforms for Next Generation Networks. MATA05 Proc. Springer-Verlag, Berlin Heidelberg, LNCS 3744-0263, ISSN 0302-9743, ISBN: 3-540-29410-4 (pp. 263-272), Montreal, Canada, October 17-19, 2005.
58. F. C. Gouveia, T. Magedanz, M. Sher, "Understanding the Issues of Providing IMS Capabilities on Different Access Networks – The Use of Policies for QoS Provision", Proc. 9th WSEAS International Conference on Communications, ISBN: 960-8457-29-7, WSEAS Press, July 2005.
59. M. Sher, T. Magedanz, "Secure Service Provisioning Framework (SSPF) for Multimedia Systems and Next Generation Mobile Networks", 3rd International Workshop in Wireless Security Technologies 2005 organized by Wireless Information Technology Research Centre(WITRC). IWWST05 Proc. ISSN 1746-904X, (pp. 101-106), London, UK April 4-5, 2005.