

Dr. Muhammad Ali

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Personal Details

Date of Birth: 01.01.1973
Marital Status: Married
Nationality: Pakistan
Languages: Urdu (Native speaker)
English (Business Fluent)
Pashto (Good – spoken only)
German (A2)

Education

2008 University of Innsbruck, Austria
PhD Computer Science

2002 Oracle Certified Professional (OCP)
Internet Application Developer, Oracle Forms Developer Release 6/6i

1997 University of Peshawar, Pakistan
Master of Science in Computer Science

Skills Inventory

Technical Writing, Project Management, Team Management, Conflict Resolution, Conference and Event Management, Student Counselling and Mentoring, Research Supervision and Management, Case Studies, and Software Development Management.

Administrative Experience

Joint Director, Institute of Management Sciences (IMSciences) Peshawar

2013 -- 2016

- Development and implementation of goals, objectives and policies
- Overall academic supervision including faculty, students, and academic activities
- Faculty members evaluations through student and peer assessments and personal interviews
- Chaired various internal committees including project management committee, advisory committee, semester committee etc.
- Represented the institute at various national and international forums
- Project coordinator
 - IMSciences infrastructure development
 - 3-months “Zero Semester for Afghan students” – project funded by HEC Pakistan.
 - Prime Minister Laptop distribution scheme for the youth of Pakistan

Coordinator ORIC, IMSciences (additional charge)

2010 – 2015

- Leading role in establishing the office of research, innovation and commercialization (ORIC) at IMSciences
- Provided support and enhance institute’s strategic research directions
- Identify and help faculty and students to apply for research funding
- Participated in research policy development (draft)
- Co-organized trainings, seminars and conferences
 - “Perspectives on Small Business Management and entrepreneurship” in Dubai Feb. 2014.
 - “13th International Conference on Statistical Sciences” at *Islamia College University (ICU)*, Peshawar Mar. 2015.
- Project Coordinator:
 - “Capacity Building of the communities for safe drinking water practices: An Action plan for the reduction of water borne illnesses and related health care costs”, (2015).

Coordinator IT Dept., IMSciences

2010 – 2013

- Managed various degree programmes including BS, MS and PhD in Computer Science (CS)
- Started the MS and PhD in Computer Science in 2009 at the institute

- Students and parents counseling
- Supervised curriculum management, IT team management, IT equipment management
- Member of National Curriculum Review Committee (HEC) for designing and implementing IT and Computing curricula at Pakistani Universities (2008 – 2009)
- Co-supervised a team developing campus management solution (CMS) for IMSciences

Academic Experience

Associate Professor, IMSciences 2015 – till date

Teaching, supervising and mentoring undergraduate, graduate and Post-graduate students

Member of faculty selection Committee

Member of Departmental Technical Review Committee

Member of Departmental Promotion Committee

Thesis supervision

Courses taught: Research Methodology, Introduction to Computing, Computer Networks, Databases, Management Information System, Systems Analysis and Design.

Authored / co-authored Research publications

Assistant Professor (tenure track), IMSciences 2008 -- 2015

PhD candidate, University of Innsbruck, Austria 2003 – 2008

Trainings Attended

San Diego, California, USA Feb. 11 – 13, 2016
 University Intellectual Property Rights Commercialization: Licensing, Incubation, and Entrepreneurship.

San Diego, California, USA Feb. 14 – 17, 2016
 Association of University Technology Managers (AUTM) conference, Annual Meeting

Washington DC, USA Oct. 26 – 30, 2015
 U.S. - Pakistan University Partnership Program Workshop: *Building and Sustaining Partnerships*

Lahore, Pakistan Training on Project Management Sponsored by USAID – under the project: Assessment and Strengthening Program (ASP-LUMS), at Lahore University of Management Sciences (LUMS), Pakistan	Jan. 20 – 24, 2014
Singapore, Republic of Singapore Technology Licensing Workshop	Mar. 10 – 14, 2014
Islamabad, Pakistan Capacity building for ORIC Managers at Universities	Jan. 23 – 27, 2012
Lahore, Pakistan Training on Monitoring and Evaluation for Senior Managers	Feb. 19 – 21, 2012
Islamabad, Pakistan Knowledge Exchange Masterclass on Enterprise Educators, organized by British Council & National Council for Enterprise in Education, UK	Jun. 1 & 22, 2012
Washington DC – Philadelphia - Los Angeles, USA Universities and Technology – Based Economic Development (Strengthening University / Industry Partnerships)	Sep. 11 – 20, 2012
Philadelphia PA, USA Association of University Technology Managers (AUTM) Conference, Eastern Region Meeting	Sep. 12 – 14, 2012
Lahore, Pakistan Changing the Mindset: Building the Entrepreneurial Culture in Universities and How to hold Business Plan Competitions	Nov. 14 – 17, 2012
Dubai, UAE Turnitin (anti-plagiarism) Training, organized by iParadigms, UK	Dec. 7 – 9, 2010
Peshawar, Pakistan Project Management Professional (PMP) Training (40 PDUs earned)	July 21 – 25, 2008

Invited talks / Guest lectures

Guest of Honor at the closing ceremony of 13th International Conference on Statistical Sciences held in Islamia College University Peshawar (Mar. 16 – 18, 2015). IMSciences co-sponsored the event.

Panel member on University-Industry linkages at the entrepreneurial week organized at IMSciences Peshawar (Nov. 16 – 21, 2014).

Guest speaker at the inauguration of Centre of Integrative Bio Sciences at CECOS University, Peshawar (Sep. 27, 2014).

Panel member as a subject specialist at “First Digital Youth Summit” held in Peshawar (May 21 -- 22, 2014).

Invited talk: “Research and commercialization in Business Schools: Lessons learnt from ORIC” at the International conference titled “Perspectives on Small Business Management and Entrepreneurship”, in Dubai (Feb. 6 – 10, 2014).

Invited talk: “Establishment of ORIC at IMSciences: challenges and achievements” at the Roundtable on Establishment and Strengthening of Technology Management Offices (TMOs), organized in Islamabad by IPO Pakistan and WIPO Switzerland (Dec. 9 - 10, 2013).

Chief Guest at the closing ceremony of National Information Technology Competition held at City University, Peshawar (Dec. 7, 2013).

Invited talk: “University-Industry linkages: learning from the US experience” at the Debriefing Session on “Technology Transfer & Intellectual Property Rights' status at USA -- A Comparative Analysis” in HEC, Islamabad (May 22, 2013).

Invited talk: “Research Methodologies for Computer Sciences” at City University, Peshawar (April 28, 2011).

JOURNAL PUBLICATIONS

1. Fakhri Alam Khan, Mujeeb ur Rehman, Afsheen Khalid, **Muhammad Ali**, et al. "An Intelligent Data Service Framework for Heterogeneous Data Sources", *Journal of Grid Computing* (2018), Springer Netherlands: <https://doi.org/10.1007/s10723-018-9443-5>
2. **Muhammad Ali**, Mah-Rukh Fida, Ameer Shakayb Arsalaan, Awais Adnan, "Implementation and Analysis of Clustering Techniques Applied on Pocket Switched Network," *International Journal of Distributed Sensor Networks* (2015), Hindawi Publishing Corporation, Article ID 239591, 6 pages, 2015.
3. Shah Nazir, Sajid Anwar, Sher Afzal Khan, Sara Shahzad, **Muhammad Ali** et al. "Software Component Selection Based on Quality Criteria Using the Analytic Network Process", *Abstract and Applied Analysis* (2014), Hindawi Publishing Corporation
4. Nadeem Javaid, Mohsin Raza Jafri, Zahoor Khan, Umar Qasim, Turki Ali Alghamdi, **Muhammad Ali**, "iAMCTD: Improved Adaptive Mobility of Courier Nodes in ThresholdOptimized DBR Protocol for Underwater Wireless Sensor Networks", *International Journal of Distributed Sensor Networks* (2014), Hindawi Publishing Corporation
5. Awais Adnan, **Muhammad Ali**, "Shot Boundary Detection Using Sorted Color Histogram Polynomial Curve", *Life Science Journal* (2013);10(4)
6. Mah-Rukh Fida, **Muhammad Ali et al.** "Survey of History Based Routing Protocols in Delay Tolerant Network", *VAWKUM Transactions on Computer Sciences* vol. 2, No. 1, (2013) ISSN: 2308-8168, pp. 7 – 17
7. Tamleek Ali, Muazzam A. Khan, Amir Hayat, Masoom Alam, and **Muhammad Ali**, "Secure Actor Directed Localization in Wireless Sensor and Actor Networks", *International Journal of Distributed Sensor Networks, Volume 2013*, Hindawi Publishing Corporation
8. Masoom Alam, Xinwen Zhang, Mohammad Nauman, Tamleek Ali, **Muhammad Ali** et al., "Behavioral Attestation for Web Services using access policies", *Multimedia Tools and Applications* (2013) 66: pp. 283–302
9. Masoom Alam, Xinwen Zhang, Mohammad Nauman, Tamleek Ali, Sanullah Khan, Shahbaz

- Khan, Quratulain Alam, Sajid Anwar, Arfan Jaffar, Amir Hayat, **Muhammad Ali** et al., "Dynamic Remote Attestation Through Behavior Measurement and Verification", *International Journal of Innovative Computing, Information and Control*, Volume 8, Number 3(A), March 2012
10. Masoom Alam, Shahbaz Khan, Quratulain Alam, Tamleek Ali, Sajid Anwar, Amir Hayat, Arfan Jaffar, **Muhammad Ali** et al., "Model-Driven Security for Trusted Systems", *International Journal of Innovative Computing, Information and Control*, Volume 8, Number 2, Feb. 2012
 11. Sajid Anwar , Awais Adnan, Masoom Alam, Tamleek Ali Tanveer, **Muhammad Ali** et al., "Architecture based Software Quality Maintenance Ripple Effect Analysis", *International Journal of Innovative Computing, Information and Control*, Volume 8, Number 1(A), Jan. 2012
 12. Masoom Alam, **Muhammad Ali** et al., "Mauth: A fine-grained and user-centric permission delegation framework for web services", *International Journal of Physical Sciences*, (2011), pp.2060 – 2071
 13. Muhammad Ramzan, Muhammad Qasim Khan, Muhammad Amjad Iqbal, Muhammad Aasem, Arfan Jaffar, Sajid Anwar, Awais Adnan, Tamleek Ali, **Muhammad Ali** et al. "A genetic algorithms based approach for conflicts resolution in requirement", *International Journal of Physical Sciences*, (2011), vol. 6(4), pp. 828 – 836
 14. Masoom Alam, Tamleek Ali, Sanaullah Khan, Shahbaz Khan, **Muhammad Ali** et al., "Analysis of existing remote attestation techniques" *Security and Communication Networks* (2011), Wiley, pp. 1062 -- 1082
 15. Masoom Alam, Tamleek Ali, Sajid Anwar, Quratulain Alam, **Muhammad Ali** et al., "Towards Trusted Information Sharing in Enterprise Information Systems", *Information* (Oct. 2011), International Information Institute, pp.3515 – 3526
 16. Sajid Anwar, Shehzad Haleem, Toqeer Ali Syed, Awais Adnan, Tamleek Ali Tanveer, Masoom Alam, **Muhammad Ali** et al., "A FODA Oriented Approach to Architecture based Ripple Effect Analysis" *Information* (June 2011), International Information Institute, pp.2139 – 2150.

17. Tamleek Ali, Masoom Alam, Muhammad Nauman, Toqeer Ali, **Muhammad Ali** et al., "A Scalable and Privacy Preserving Remote Attestation", *Information* (April 2011), International Information Institute, pp. 1193 – 1204.
18. Awais Adnan, Muhammad Nawaz, Sajid Anwar, Tamleek Ali, **Muhammad Ali**, "Object identification with Color, Texture and Object-Correlation in CBIR System", *World Academy of Science, Engineering and Technology*, Vol. 4, (April 2010), pp. 75 - 80.
19. Awais Adnan, **Muhammad Ali** et al., "Image Search by Features of Sorted Gray level Histogram Polynomial Curve", (2007), *World Academy of Science, Engineering and Technology* Vol.1(3), pp. 280 - 285
20. **Muhammad Ali**, et al., "An efficient fault tolerant mechanism to deal with permanent and transient failures in a network on chip ", *International Journal of High Performance Systems Architecture (IJHPSA)*, Inderscience Publishers, Vol. 1 No. 2. 2007, pp. 113-123

CONFERENCE PROCEEDINGS

1. Mah-Rukh Fida, **Muhammad Ali**, Awais Adnan, "SocialCircle: A Message Forwarding Technique for Pocket Switched Networks", 6th IEEE International Conference on Computing, communication and Networking Technologies (ICCCNT 2015), 13 – 15 July, 2015, Denton, Texas, USA
2. Mah-Rukh Fida, **Muhammad Ali**, "Community-based heuristic routing protocol for disrupted social network," IEEE Malaysia International Conference on Communications (MICC 2013), 26-28 Nov. 2013, Kuala Lumpur, Malaysia
3. Mah-Rukh Fida, **Muhammad Ali**, Ameer Shakayb Arsalaan, "DTN-RSim: An event-based routing simulator for DTN," International Conference on Computer Networks and Information Technology (ICCNIT 2011) 11-13 July 2011, Abbottabad, Pakistan
4. Tabinda Salam, **Muhammad Ali**, Mah-Rukh Fida, "Seamless Proactive Vertical Handover Algorithm", 8th IEEE International Conference on Information Technology: New Generations (ITNG 2011), 11-13 April 2011, Las Vegas, USA.

5. Mah-Rukh Fida, **Muhammad Ali**, Awais Adnan, Ameer Shakayb Arsalaan, "Region-Based Security Architecture for DTN", 8th IEEE International Conference on Information Technology: New Generations (ITNG 2011), 11-13 April 2011, Las Vegas, USA
6. Muhammad Nawaz, Jon Cosmas, Awais Adnan, **Muhammad Ali**, "Inter-intra frame segmentation using colour and motion for region of interest coding of video," IEEE International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB 2011), 8-10 June 2011, Nuremberg, Germany
7. **Muhammad Ali**, Michael Welzl, "Internet Lessons for Network on Chips Designers", 33rd International Conference on Telecommunication and Signal Processing (TSP 2010), 17 – 20 August, 2010, Baden (near Vienna), Austria.
8. **Muhammad Ali**, Awais Adnan, "Object identification with Color and Texture in CBIR System", World Congress on Science, Engineering and Technology, 28 – 30 October, 2009, Venice, Italy.
9. Ahmad Hassan Afridi, **Muhammad Ali**, "Fault tolerant Context Aware Mobile Computing", International Conference on Future Computer and Communication, 3-5 April 2009, Kuala Lumpur, Malaysia.
10. **Muhammad Ali**, Awais Adnan, "Comparative analysis of transient-fault tolerant schemes for Network on Chips", World Academy of Science, Engineering and Technology, July 2008, Heidelberg, Germany.
11. Awais Adnan, Salim Gul, **Muhammad Ali**, Amir Hanif Dar, "Content Based Image Retrieval Using Geometrical-Shape of Objects in Image", IEEE International Conference on Emerging Technologies, (ICET 2007), 12-13 Nov. 2007, Islamabad, Pakistan
12. **Muhammad Ali**, Michael Welzl, Sybille Hellebrand, "A Fault Tolerant Mechanism for handling Permanent and Transient Failures in a Network on Chip", 4th International Conference on Information Technology : New Generations (IEEE ITNG 2007), 2-4 April 2007, Las Vegas, USA.
13. **Muhammad Ali**, Awais Adnan, Michael Welzl, "Design of a fast and low-level fault-tolerant protocol for network on chips", IEEE International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering (CISSE 2006), 4-14 December 2006, *online conference*.

14. Farrukh Nadeem, Muhammad Murtaza Yousaf, **Muhammad Ali**, "Grid Performance Prediction: Requirements, Framework, and Models", IEEE International Conference on Emerging Technologies (ICET 2006), 13-14 November 2006, Peshawar, Pakistan.
 15. **Muhammad Ali**, Michael Welzl, Awais Adnan, Farrukh Nadeem, "Using the NS-2 network simulator for evaluating network on chips", IEEE International Conference on Emerging Technologies (ICET 2006), 13-14 November 2006, Peshawar, Pakistan.
 16. Michael Welzl, **Muhammad Ali**, "Teaching Routing with IRV-Tool", International Conference on Interactive Computer Aided Learning (ICL 2006), 26-28 September 2006, Villach, Austria.
 17. Michael Welzl, **Muhammad Ali**, Sven Hessler: "Network Simulation By Mouse (NSBM): A GUI Approach for Teaching Computer Networks with the NS-2 Simulator", International Conference on Interactive Computer Aided Learning (ICL 2006), 26-28 September 2006, Villach, Austria.
 18. **Muhammad Ali**, Michael Welzl, Martin Zwicknagl, "Networks on Chips: Scalable Interconnects for Future Systems on Chips", 3rd IEEE International Conference on Circuits and Systems for Communications (ICCSC'06), 6-7 July 2006, Bucharest, Romania.
 19. **Muhammad Ali**, Michael Welzl, Martin Zwicknagl, Sybille Hellebrand "Considerations for Fault-tolerant Networks on Chips", IEEE International conference on Microelectronics (ICM'05), 13-15 December 2005, Islamabad, Pakistan.
 20. **Muhammad Ali**, Michael Welzl, Sybille Hellebrand, "A dynamic routing mechanism for Network on Chips", IEEE NORCHIP, 21 – 22 November 2005, Oulu, Finland.
 21. **Muhammad Ali**, Michael Welzl, Sybille Hellebrand: "Dynamic Routing: A prerequisite for reliable NoCs", 17th Workshop Testmethoden und Zuverlässigkeit von Schaltungen und Systemen, Feb. 27 – Mar. 1, 2005, Innsbruck, Austria.
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