

## Dr. Mukhtiar Memon

PhD (Austria), Postdoc (Denmark)

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### **PROFESSIONAL EXPERIENCE**

**2023 – till date: Professor, IT Department, SAU, Tandojam, Pakistan**

- Teaching Courses to undergraduate and postgraduate levels
- Supervising research students and undergraduate projects
- Participate in research, development, and innovation projects at national and international levels.
- Program design, curriculum development, and course design
- Course coordination and students learning management.
- Industry-academia Collaboration and public-private cooperation
- Advise the IT services and systems department at the university

**2021 – 2022: Associate Professor, IT Department, SAU, Tandojam, Pakistan**

- Teaching courses related to Programming, Software Engineering, and Web Technologies
- Manage online classes at the university as Focal Person for Online Classes
- Writing research and development project proposals for collaboration
- Supervise student projects and participate in department administration
- Manage the Computerization and Networking Section (CNS) for providing technical services

**2011 – 2021: Assistant Professor IT Department, SAU, Tandojam, Pakistan**

- Teaching courses related to Software Engineering, SOA Architecture, and Web Technologies
- Writing research and development project proposals for collaboration
- Supervise student projects and participate in department administration

**2002 – 2011: Lecturer IT Department, SAU, Tandojam, Pakistan**

- Teaching courses related to Software Engineering, SOA Architecture and Web Technologies
- Supervise student projects and participate in academic activities
- Coordinate academic undergraduate programs and students' affairs
- Participate in academic and extra-curricular activities

## **INTERNATIONAL PROJECTS**

- CareStore  
2013 - 2014**      An Innovative Open-Source Platform for Seamless Healthcare Device Marketing & Configuration, EU – FP7 Project,  
[http://cordis.europa.eu/project/rcn/105930\\_en.html](http://cordis.europa.eu/project/rcn/105930_en.html)
- SECTISSIMO  
2009 – 2011**      A Platform-independent Framework for Security Services, FWF, Austria,  
[sectet.org/publications](http://sectet.org/publications)
- SecureChange  
(2010 – 2012)**      Security Engineering for Lifelong Evolvable Systems  
<http://www.securechange.eu/biblio%3Fpage=5.html>

## **EDUCATIONAL QUALIFICATIONS**

- 2007 - 2011      Ph.D. (Computer Science), University of Innsbruck, Austria
- 2000 - 2002      MSc. (Software Development), University of Huddersfield, United Kingdom

## **Google Scholar Citations:**

<https://scholar.google.com.pk/citations?user=Jw7Sx7wAAAAJ&hl=en>

## **Awards and Achievements:**

- **Awarded Scholarship for PhD Studies**  
@Higher Education Commission, Pakistan (2007-2011)
- **Distinction in PhD Defense**  
@University of Innsbruck, Austria (2007-2011)
- **Postdoctoral Fellowship in European Union Framework (EU-FP7) funded Project**  
@Aarhus University, Denmark (2013-2014)
- **787 Google Scholar Citations**  
h-index=**11**, i10-index=**11**

## **LIST OF RESEARCH PUBLICATIONS:**

- Mukhtiar Memon, Suhni Abbasi, Ghulam Ali Rahu, Habibullah Magsi, *"AiDHealth: An AI-enabled Digital Health Framework for Connected Health and Personal Health Monitoring"*, <https://www.researchsquare.com/article/rs-2402505/v1>, 2024.
- Habibullah Magsi, **Mukhtiar Memon**, Muazzam Sabir, Inayatullah Magsi, Nadeem Anwar, *"Income Elasticity of Households Health and Wellness in Rural Pakistan"*, Journal of Economics and Management Sciences, 2(1), 2021.
- Ali Ghulam, **Mukhtiar Memon**, Mansoor Hyder, Zulfikar Ahmed Maher, Ahsanullah Unar, Zar Nawab Khan Swati, Dhani Bux Talpur, Rahu Sikander, Ikram Ullah, Ali Farman, *"Identification of Novel Protein Sequencing SARS CoV-2 Coronavirus Using Machine Learning"*, Journal of Bioscience Research, 18(1), 2021.
- **Mukhtiar Memon**, Muhammad Yaqoob Koondhar, Zulfikar Ahmed Maher, Mansoor Hyder Depar, Pinal Khan Butt, *"Healthcare Hub Platform: A Sustainable Healthcare Information Architecture for Health Monitoring"*, International Journal of Scientific & Technology Research, 10(5), 2021.
- Laaraib, E., Maher, Z. A., Solangi, Z. A., Koondhar, M. Y., **Memon, M.**, Depar, M., & Shah, A. (2021). *"A Methodology for Incorporating Quality Assurance Practices during Software Development Life Cycle"*. International Journal, 10(3).
- Irfana Memon, Muzmil Memon, Rafia Naz Memon, **Mukhtiar Memon**, *"Innovative Methodology for Software Testing Education in Higher Education Institutes of Pakistan"*, International Journal of Scientific & Technology Research, 10(5), 2021.
- Z. A. Maher, M. H. Depar, **M. Memon**, M. Y. Koondhar, P. K. Butt, A. Shah, *"Measuring Secure Software Development Awareness and Usage among Software Developers"*, Sindh University Research Journal-SURJ, 52(4), 381-386, 2020.
- Abdul Samad Jamali, Muhammad Yaqoob Koondhar, Mansoor Hyder Depar, Zulfikar Ahmed Maher, **Mukhtiar Memon**, *"A Conceptual Framework for Smart Education System for Postgraduate Students"*, University of Sindh Journal of Information and Communication Technology (USJICT), 4(3), 165 - 172, 2020.
- M. Memon, **M. Memon**, R.N. Memon, F. Siyal. *"A Methodology for Addressing Software Testing Education Problems in Higher Education Institutes of Pakistan"*, 1st International Conference on Computational Sciences and Technologies, 10-12 April 2019 (INCCST'19), MUET Jamshoro, Pakistan, 2019.
- Jalbani, A., **Memon, M.**, Depar, S., Koondhar, M. Y., *"A Study of News Recommender System using Natural Language Cloud Computing Services"*. Sindh University Research Journal-SURJ (Science Series), 50(2), 249-254, 2018.

- Jorge Miranda, **Mukhtiar Memon**; Jorge Cabral, Stefan Rahr Wagner, Christian Fischer Pedersen, Blaise Ravelo, et. al. *“Eye on Patient Care: Continuous Health Monitoring: Design and Implementation of a Wireless Platform for Healthcare Applications”*, IEEE Microwave Magazine, 18(2), 2017, 83-94.
- **Mukhtiar Memon**, Akhtar Ali Jalbani, Gordhan Das Menghwar, Mansoor Hyder Depar, Kamran Taj Pathan, *“I2A: An interoperability & integration architecture for medical device software and eHealth systems”*, Science International Journal, 28(4), 3783-3787, 2016.
- Jorge Miranda, Jorge Cabral, Stefan Rahr Wagner, Christian Fischer Pedersen, Blaise Ravelo, **Mukhtiar Memon** and Morten Mathiesen, *“An Open Platform for Seamless Sensor Support in Healthcare for the Internet of Things”*, MDPI Sensors Journal, 16(12), 2016, 2089.
- Waqar Mehmood, Nadir Shah, Majid Jamal Khan, **Mukhtiar Memon**, M. Ikramullah. *“Fine-Granular Model Merge Solution for Model-Based Version Control System”*, Malaysian Journal of Computer Science, Vol 29(3), pp 225-246, 2016.
- **Memon, M.**; Wagner, S.R.; Pedersen, C.F.; Beevi, F.H.A.; Hansen, F.O. *“Ambient Assisted Living Healthcare Frameworks, Platforms, Standards, and Quality Attributes”*. Sensors 2015, 14, 4312-4341.
- Jorge Miranda, Jorge Cabral, Blaise Ravelo, Stefan Wagner, Christian F. Pedersen, **Mukhtiar Memon**, and Morten Mathiesen. *“Radiated EMC immunity investigation of common recognition identification platform for medical applications”*, European Physical Journal Applied Physics, 69: 11002, January 2015.
- B. Ravelo, J. Miranda, J. Cabral, S. Wagner, C. F. Pedersen, **M. Memon**, M. Mathiesen and S. Lalléchére, *“RF and EMC Investigation on CRIP System for the E-Healthcare CareStore Platform”*, 9th IEEE European Conference on Antennas and Propagation (EuCAP 2015), Lisbon, Portugal, April 12-17, 2015.
- J. Miranda, J. Cabral, B. Ravelo, S. Wagner, C. F. Pedersen, **M. Memon**, and M. Mathiesen, *“Wireless authentication platform for healthcare applications”*, IEEE International Wireless Symposium (IWS), 2015.
- Blaise Ravelo, Jorge Miranda, Jorge Cabral, Stefan Rahr Wagner, **Mukhtiar Memon**, and C. F. Pedersen, *“Analysis of a Healthcare Platform RF Emission in Indoor Environment.”*, IEEE International Symposium on Electromagnetic Compatibility and EMC Europe, Dresden, Germany, 2015.
- **Mukhtiar Memon**, Gordhan Das, Akhtar Ali Jalbani, Mansoor Hyder and Waqar M. Mashwani, *“Security Modeling for Service-oriented Systems using Security Pattern Refinement Approach.”*, Journal of Software and System Modeling, 2014.
- Stefan Rahr Wagner, Rene Stenner, **Mukhtiar Memon**, Femina Hassan Aysha Beevi, Christian Fischer Pedersen. *“Common Ambient Assisted Living Home Platform for Seamless Care.”*, 8th

International Conference on Pervasive Computing Technologies for Healthcare, Oldenburg, Germany, 2014, pp. 199-200.

- **Memon, Mukhtiar**; Wagner, Stefan Rahr; Hansen, Finn Overgaard; Pedersen, Christian Fischer; Beevi, Femina Hassan Aysha; Mathissen, M; Nielsen, C; Langvad, O. *“Ambient Assisted Living Ecosystems of Personal Healthcare Systems, Applications, and Devices.”*, Scandinavian Conference on Health Informatics 2013. Linköping University Electronic Press, pp. 61-65.
- Wagner, Stefan Rahr; Hansen, Finn Overgaard; Pedersen, Christian Fischer; **Memon, Mukhtiar**; Beevi, Femina Hassan Aysha; Mathissen, M; Nielsen, C; Wesby, O.L., *“CareStore Platform for Seamless Deployment of Ambient Assisted Living Applications and Devices.”*, 7th International Conference on Pervasive Computing Technologies for Healthcare and Workshops, Venice, Italy 2013, pp. 240-243.
- **M. Memon**, A. Keerio, J. A. Mahar, M. Hyder, G. D. Menghwar, *“State-of-the-art in eHealthcare Security and Privacy.”*, Sindh University Research Journal, June 2012, Volume 44(2), 197-202.
- **Mukhtiar Memon**, Akhtar A. Jalbani, Mansoor H. Depar, Gordhan D. Menghwar, *“Towards an Approach of Agricultural Virtual Organizations (AgriVOs) for Sharing and Management of Scientific Research Data”*, International Journal of Advanced Research in Computer Science, Volume 3, No. 4, July- August 2012, pp. 103-108.
- **Mukhtiar Memon**, Gordhan D. Menghwar, Mansoor H. Depar and Akhtar A. Jalbani, *“Implementing SOA Security using SCA Model”*, Sindh University Research Journal, Vol. 44 (3), 2012.
- **Mukhtiar Memon**, Gordhan D. Menghwar, Akhtar A. Jalbani, Mansoor H. Depar, Ghulam Ali Rahu, *“Modeling Authentication and Authorization Security Service for WS-Security Architecture”*, Science International Journal, Lahore, 24(3), 2012, 243-249.
- A. Jalbani, **Mukhtiar Memon**, I. Qureshi, Aneela Yasmin, *“A Novel Quality Model for UML Models”*, International Conference on Communications and Information Technology (ICCIT- 2012), Hammamet, Tunisia, 2012, pp. 248-252.
- M. Gander, M. Hafner, **M. Memon**, Y. Hui, and R. Breu, *“Using Security Architectural Patterns for Model Driven Security in SOA”*, 11th Conference on Communications and Multimedia Security, 2010, Linz, Austria.
- **Mukhtiar Memon**, *“Modeling Security with Pattern Refinement for a Security as a Service (SeAAS) Architecture”*, PhD. Symposium at Modellierung 2010 Conference, Klagenfurt, Austria, 2010.
- Michael Hafner, **Mukhtiar Memon** and Ruth Breu, *“SeAAS - A Reference Architecture for Security Services in SOA”*, Journal of Universal Computer Science, 2009, Volume 15, Issue 15, 2916-2936.

- **Mukhtiar Memon**, Michael Hafner and Ruth Breu, "*Security As A Service - A Reference Architecture for SOA Security*", 7th International Workshop on Security in Information Systems (WOSIS 2009), ICEIS 2009 Conference, 2009, Milan, Italy.
- **Mukhtiar Memon**, "Implementing Fair Non-repudiation in Security-as- a-Service (SeAAS) Architecture, Quality Engineering Seminar, Institute of Computer Science, University of Innsbruck, Austria, 2009.
- Michael Hafner, **Mukhtiar Memon** and Muhammad Alam, Modeling and Enforcing Advanced Access Control Policies in Healthcare Systems with SECTET, Book Chapter: Models in Software Engineering, ISBN: 978-3-540-69069-6, LNCS, Volume 5002/2008, 132-144.
- **Mukhtiar Memon**, Michael Hafner and Ruth Breu, "*SECTISSIMO: A Platform-independent Framework for Security Services.*", Modeling Security (ModSec) Workshop at MODELS '08 Conference, 2008, Toulouse, France.
- **Mukhtiar Memon**, "*SECTISSIMO: A Security Modeling Approach.*", University of Innsbruck, Obergurgl Campus, Austria, 2008.
- **Mukhtiar Memon**, "*Implementing Security As A Service using Service Component Architecture (SCA) Model.*", Quality Engineering Seminar, Institute of Computer Science, University of Innsbruck, Austria, 2008.
- **Mukhtiar Memon**, "*A General Platform-independent Framework for Executing Security Services*", Quality Engineering Seminar, Institute of Computer Science, University of Innsbruck, Austria, 2008.
- **Mukhtiar Memon**, "*State-of-the-art in eHealthcare Security and Privacy.*", Quality Engineering Seminar, Institute of Computer Science, University of Innsbruck, Austria, 2008.
- **Mukhtiar Memon**, "*Organization Based Access Control (OrBAC).*", Quality Engineering Seminar, Institute of Computer Science, University of Innsbruck, Austria, 2007.
- Abdul Latif Ansari and **Mukhtiar Memon**. "*Essentials for Establishment of Digital Libraries.*", National Workshop on Resource Sharing and Networking of Libraries and Documentation Centers, Directorate of Scientific Information, Islamabad, Pakistan, 2005.

## **Trainings Attended (National and International)**

- 05-2024: **“Universities’ Role in Artificial Intelligence (AI) Innovation Ecosystems”**  
(5<sup>th</sup> ASEF Higher Education Innovation Laboratory), May 2 – June 27, 2024  
Asia-Europe Foundation (ASEF), <https://asef.org/projects/innolab5/>
- 03-2024: **Data and Information Management** (Online Workshop), March 7, 2024  
Data Train, U Bremen Research Alliance, Universität Bremen, Germany,  
<https://www.bremen-research.de/>
- 01-2024: **International EDUCA Conference** (online), 26-27 January 2024  
Trade Union of Education in Finland (OAJ), Finnish National Agency for Education EDUFI,  
<https://educa.messukeskus.com/?lang=en>
- 01-2024: **IEEE Humanitarian Technology Conference**, 8-9 January 2024  
IEEE Karachi Section, Pakistan,  
<https://sau.edu.pk/event/1st-ieee-karachi-section-humanitarian-technology-conference-2024/>
- 07-2023: **Project Management** (Google Project Management Course)  
Duration: 08 Weeks  
Coursera Online Course
- 05-2023: **Emerging Applications of IoT in Agriculture**  
Duration: 01 Days  
Jointly organized by IEEE Pakistan and Sindh Agriculture University, Pakistan
- 03-2022: **Project Cycle Management in Public Sector**  
Duration: 01 Days  
International Center for Chemical and Biological Sciences (ICCBS) in collaboration with the  
Sindh Innovation, Research, and Education Network (SIREN)
- 03-2022 **Developing Applications with Microsoft PowerApp**  
Duration: 02 Days  
Microsoft and Higher Education Commission (HEC) Islamabad, Pakistan
- 02-2022 **Quality Assurance Agency (QAA), United Kingdom and QAA-Pakistan Consultative Workshop**  
Duration: 01 Days  
The Quality Assurance Agency for Higher Education (QAA) UK,
- 02-2022 **Workshop on Quality Assurance Models in Higher Education Institutes of Pakistan**  
Duration: 02 Days  
The Quality Assurance Agency for Higher Education (QAA) UK,
- 06-2020 **Knowledge Transfer Workshop on Office 365: Microsoft Teams Administration**  
Duration: 02 Days  
Microsoft and Higher Education Commission (HEC) Islamabad, Pakistan

- 09-2018 **Workshop on Use of National Digital Library, Turnitin and Fair Use of Information in Research**  
Duration: 02 Days  
Computerization and Networking Section, Sindh Agriculture University, Pakistan
- 10-2017 **MS Office 365 for Education**  
Duration: 04 Days, Information Technology Center, Sindh Agriculture University, Pakistan
- 11-2016 **Pakistan Education and Research Network (PERN)**  
Duration: 02 Days  
Higher Education Commission (HEC) Islamabad, Pakistan
- 04-2016 **Amazon CS3 Cloud (How to use Amazon Cloud services)**  
Duration: 5 days  
Computerization and Networking Section, Sindh Agriculture University, Pakistan
- 11-2015 **Canvas: The Open-source Learning Management System (LMS)**  
Duration: 02 Days  
University College of Northern Denmark (UCN), Aalborg, Denmark
- 09-2013 **MS Azure Cloud Platform**  
Duration: 05 Days  
Department of Engineering, Aarhus University, Denmark
- 09-2013 **DemAAL 2013: Dem@Care Summer School on Ambient Assisted Living**  
Duration: 05 Days  
Chania, Crete, Greece
- 05-2011 **Digital Transformation: Trends and Challenges**  
Duration: 03 Days  
Information Technology Center, Sindh Agriculture University, Pakistan
- 08-2008 **Workshop on Advanced Concepts of Access and Usage Control**  
Duration: 2 Days  
Zurich Information Security Center (ZISC), ETH  
Zurich, Switzerland
- 02-2004 **MS Office Automation Tools (MS Word, MS Excel, MS PowerPoint)**  
Duration: 08 Days  
Information Technology Center, Sindh Agriculture University, Pakistan