

Resume Summary:

Education:

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| Post-Doc Fellowship | University of Southampton, U.K., 2008. |
| Ph.D. | University of Southampton, U.K., 2001. |
| Bachelors of Engg. | University of Engineering & Technology Mehran, Pakistan, 1995. |

Professional Experience:

- **General Exposure:** Multidisciplinary in academia in terms of curriculum and systems development; leadership at program level; teamwork at institutional level; participation at various levels in international conferences and forums; reviewer of research journals. Member of various academic and professional bodies.
- **Teaching & Research: 14 years.** University of Southampton, Southampton U.K., KIIT-University of Huddersfield U.K., and Bahria University, Karachi, Pakistan.
- **Academic Administration: 8 years.** Worked as Head of Engineering Programs at Bahria University Pakistan for four years, Pathway Leader at KIIT-University of Huddersfield UK for two years and Project Manager at University of Southampton UK for two years.
- **Programs and Development Experience:**

Major Projects Completed:

1. MACFOB: The MACFOB project aims to develop a web based multimedia annotation tool that will meet the important and pervasive user need of making multimedia web resources (e.g. podcasts, etc) easier to access, search, manage and exploit for students, teachers and other users through developing and deploying technologies that support the creation of synchronized notes, bookmarks, tags, images, videos and text captions. The Project is funded by JISC (Joint Information Systems Committee, HE, UK) 2008-09.
2. Ed-Scene: Semantic Web Portal to support various roles in academic management system. Project was funded by JISC, 2007-08.
3. Virtual Learning Environment (VLE) incorporating remote video services (Project was demoed in IEEE/ACIS symposium in July 2007, at Melbourne Australia).
4. Real Time Score and Results Monitoring System, Swatch, UK and Canada (Project was used for scoring system of Pan-American Games, Winnipeg, Canada, 1999).
5. Thematic Video Indexer (Project demoed at ACM Multimedia Conference, Florida, USA, 1999).
6. Developed and maintained website(<http://www.bbsonline.org>) for Brain and Behavioral Sciences (BBS) research journal, Cambridge University Press, UK, covering online open peer reviews and commentary. (Southampton UK 1997-2000).
7. Multi-node Video Conferencing over ISDN and IP networks (August 2001, Karachi). First of its kind in Pakistan at the time.
8. Establishment of Engineering labs at Bahria University-Karachi Campus (Karachi 2004-2006).

Research Interests: Learning Technologies, Usage of Web Technologies into learning, Multimedia Systems, Digital Video/Image Processing and Storage, Internet programming.

Current Research: My research work includes exploring the new avenues of semantic web and web2.0 applications for extracting knowledge and information among various learning paradigms. This combination provides facilities to access and understand more learner involvement, but also more intelligent mechanisms are investigated to give direct access to the semantics of the leaning content. Combining the automatic extraction, representation and manipulation of semantic content with more traditional information handling facilities require new architectures, and these are also being investigated in my current research work. The development of integrated cross-media content, concept based browsing, retrieval and navigation for multimedia into learning is providing a challenging long-range research goal.

Current job profile: Head of Engineering Programs and Associate Professor, Bahria University, Pakistan, Adjunct Researcher, Learning Societies Lab (LSL), School of Electronics and Computer Science (ECS), University of Southampton, U.K.

Detailed Resume:

E D U C A T I O N

Post Doctorate Fellowship in Learning Systems

Sep 2007 – Mar 2008

School of Electronics and Computer Science (ECS),
University of Southampton,
Southampton, United Kingdom.

Supervisor: Professor Dame Wendy Hall, DBE, FREng

Ph.D. in Computer Science

Sep 1997 – Feb 2001

School of Electronics and Computer Science (ECS),
University of Southampton,
Southampton, United Kingdom.

Dissertation: Thematic Indexing in Video Databases.

Supervisor: Professor Dame Wendy Hall, DBE, FREng

Bachelors of Computer Systems Engineering

1990 - 1995

Mehran University of Engineering & Technology,
Jamshoro, Pakistan.

First Class Honors with Distinction.

A W A R D S & H O N O R S

1. Commonwealth Academic Fellowship to pursue Post Doc in United Kingdom (Sept 2007-March 2008).
 2. "**Best University Teacher Award**", 2003, by Higher Education Commission (HEC), Government of Pakistan.
 3. Commonwealth Scholarship to pursue PhD in United Kingdom (Sept 1997 – Oct 2000).
 4. Quaid-e-Azam Merit Scholarship, awarded by Government of Pakistan, for Higher Degrees (1996).
 5. Third Prize in "All Pakistan Inter University Software Competition" in 1995, held at Sindh University, Pakistan.
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W O R K E X P E R I E N C E

- Bahria University (Karachi Pakistan), Associate Professor and Head of Engineering Programs, Jan 2004 – to date.
- Learning Societies Lab, School of Electronics and Computer Science, University of Southampton, Senior Research Fellow, Sept 2007 – April 2009.
- Karachi Institute of Information Technology (Karachi Pakistan), in collaboration with University of Huddersfield, U.K, Assistant Professor and BSc Pathway Leader, March 2001 – Dec 2003.
- University of Southampton, New College (Southampton, UK), Faculty member, Sept 2000 – Feb 2001.
- University of Southampton, Multimedia Research Group (Southampton, UK), System Analyst and Web Developer for BBS research journal (part time), October 1998 – July 2000.
- GIK Institute of Engineering Sciences (Topi, Pakistan), Lab Engineer, Aug 1996 – Sep 1997.
- Aga Khan University Hospital (Karachi Pakistan), Trainee Programmer, Mar 1996 – Jul 1996.

DEVELOPMENT PROJECTS CARRIED OUT

1. MACFoB: Multimedia Annotation and Community Folksonomy Building project's (MACFOB) outcomes will meet the important and pervasive user need of making multimedia web resources (e.g. podcasts, educational videos, lectures and notes) easier to access, search, manage, and exploit for learners, teachers and other users through developing and deploying technologies that support the creation of synchronized notes, bookmarks, tags, links, images and text captions. The project is funded by JISC (Southampton, UK Oct 2007 – Mar 2009).
2. Net4Voice: Net4Voice is EU funded project with the aim to increase quality and learning opportunities for the whole society, promoting the adoption of barrier free learning environments and the development of innovative learning methodologies based on speech-recognition (SR) technologies. Partners in the project are Alma Mater Studiorum, Università di Bologna Italy, Istituto Professionale di Stato per i Servizi Sociali Iris Versari Italy, Totton College UK, Universität Ulm Germany and University of Southampton UK (Southampton UK Oct 2007 – Mar 2009).
3. EdScene: EdScene is a scenario for EdSpace (repository for educational artifacts). It is a JISC funded project with a purpose to identify best practice of various roles in UK Higher Education (HE) system. In order to facilitate its future integration and development into the EdSpace, semantic web and knowledge technologies to elicitate and manage digitalized resources related to all roles (teachers, students, quality assurance people, management, perspective employers, etc) in an academic scenario are used.(Southampton, UK, Oct 2007 – Sep 2008).
4. Virtual Learning Environment (VLE) incorporating remote video services. The main theme of this project was to develop a low cost virtual learning environment based on constructivist pedagogy enabling features such as online student, teacher and course profiling, online assessments and remote video viewing. The project was funded by a research grant of Bahria University and (Karachi, Pakistan, Sept 2006-Sept 2007).
5. Real Time Score and Results Monitoring System, Swatch, UK and Canada. (Project was used for scoring system of Pan-American Games, Winnipeg, Canada, 1999).
6. Thematic Video Indexer (TVI): TVI is a video data model, implementing object oriented concepts into multimedia technology. TVI aimed to develop innovative indexing and retrieval techniques, that aims to assist users to search for specified scenes or shots within a video. It aids the user to track story lines or themes of videos and stores the scenes and shots in hierarchical format, creating a thesaurus like structure of video objects. Project was demoed at ACM Multimedia Conference, Florida, USA, 1999.
7. Developed and maintained website for Brain and Behavioral Sciences (BBS), Cambridge University Press, UK, covering open peer reviews and commentary, Southampton, UK, 1998 – 2000.
8. Part of the team that developed Digital Archives for Alan Turing at Southampton University, U.K, 1999.
9. Arranged Multi-node Video Conferencing System over ISDN and IP networks, Karachi, Pakistan, August 2001. First of its kind in Pakistan.
10. Website development of KIIT, Pakistan, 2002 (<http://www.kiit.edu.pk>)
11. Establishment of Digital Library at KIIT, Karachi Pakistan, 2002.
12. Establishment of Multimedia laboratory at KIIT, Karachi Pakistan, 2003.
13. Establishment of Video Conferencing facilities over ISDN and IP at KIIT, Karachi, Pakistan, 2002.
14. Developed Computer and Electronics Engineering labs for Bahria University, Karachi and Islamabad Campuses, Pakistan, 2004-7.

A C A D E M I C A D M I N I S T R A T I O N

1. Worked as BSc Pathway leader for two years during my stay at KIIT-University of Huddersfield. (2002-2003).
 2. Worked as Head of Engineering Programs for four years, at Bahria University (2004- 2006).
 3. Currently working as Project Manager at Learning Societies Lab, University of Southampton UK. This work is an extension to Commonwealth Academic Fellowship program.
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P R O F E S S I O N A L & A C A D E M I C S O C I E T I E S :

1. Member SIGITE (Special Interest Group for Information Technology in Education) of ACM, USA. 2007-09.
2. Member of various curriculum committees for HEC, Government of Pakistan, for curriculum development in engineering programs.
3. Member of Accreditation Committee for Computer Engineering and Software Engineering programs of Pakistan Engineering Council (PEC).
4. Member National Testing Service (NTS) Government of Pakistan, curriculum committee for Computer and Software Engineering.
5. Associate Editor and Reviewer, International Journal of Social Network Mining (IJSNM), Inderscience Publishers, USA, ISSN(online):1757-8493, ISSN(Print): 1757-8485.
6. Reviewer and program committee member of various IEE and ACM conferences.
7. Reviewer and technical advisor, Technology Forces - PAF-KIET Journal of Engineering & Sciences, Pakistan.
8. Reviewer and member editorial board, Mehran University Research Journal (MURJ),Pakistan. ISSN 0254-7821
9. Higher Education Commission (HEC) approved PhD Supervisor for Computer Sciences and Engineering.
10. In my volunteer capacity I am working as Board Member, The Aga Khan Grants and Review Board, Pakistan since last six years. I am overseeing the programs and development at Aga Khan Education Service Pakistan and am involved in various strategic and review activities at the governance level.

Membership in Professional Bodies:

1. Professional Member, British Computer Society, U.K. (BCS).
 2. Member, Association of Computing Machinery USA. (ACM).
 3. Member, Institute of Electrical and Electronics Engineers USA (IEEE).
 4. Member, Pakistan Engineering Council (PEC).
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T E C H N I C A L E X P E R T I S E

Apart from exposure to Information systems at the strategic, development and implementation level, I have thorough expertise in the systems related to teaching and learning. I have good experience of Academic Management Systems, Content Management Systems (digital libraries, archives, etc), Virtual Learning Environments (BlackBoard, Moodle, Sakai, etc), Virtual Class Rooms, Online Assessment systems, Coursework submission systems, Web 2.0 and Semantic Web technologies.

2009

1. Khoja, S., Wald, M., Millard, D., Wills, G., (2009) Synchronizing Annotations for Educational Multimedia (March 2009) to be published in IEEE Transactions on Learning Technologies.
2. Yunjia Li, Mike Wald, Shakeel Khoja, Gary Wills, David Millard, Jiri Kajaba, Priyanka Singh, Lester Gilbert (2009), Synote: Enhancing Multimedia E-Learning with Synchronised Annotation, accepted for publication in ACM International Workshop on Multimedia Technologies for Distance Learning MTDL 2009, October 2009, Beijing, China.
3. Wald, M., Khoja, S., Millard, D., Wills, G., (2009) Synchronized Annotations and eLearning 2.0 to be published in Journal of Interactive Learning Environment, published by Routledge, Taylor and Francis.
4. Wald, M., Khoja, S., Millard, D., Wills, G., (2009) Synchronized Annotation of Multimedia. In: *9th IEEE conference on Advanced Learning Technologies: ICALT 2009*, July 2009, Riga Latvia.
5. Memon, Q., and Khoja, S. (2009) Semantic Web Approach towards Academic Program Assessment. In: International Journal of Engineering Education, Dublin Institute of Technology, Dublin, Ireland.
6. Memon, Q., and Khoja, S.,(2009) On Academic Program Administration via Semantic Web In: International Conference of Computer, Electrical, and Systems Science and Engineering, Dubai (CESSE 2009), Dubai, UAE. *The paper is also accepted to be published in International Journal of Computer, Information and Systems Science and Engineering ISSN: 2070-3732.*

2008

7. Chowdhry, B., Khoja, S., Tariq, M., and Kumar V., (2008) Smart travel service advisor using Semantic Web and Intelligent Agents. In: WSEAS Transactions on Computers ISSN: 1109-2750.
8. Khoja, S., Sana, F., Karim, A. and Rehman, A. A. (2008) [Implementing Constructivist Pedagogical Model in Dynamic Distance Learning Framework](#). In: *Wireless Networks, Information Processing and Systems*, pp. 191-201, Springer Berlin Heidelberg. ISBN 978-3-540-89852-8.
9. Wald, M., Wills, G., Millard, D., Gilbert, L., Khoja, S., Kajaba, J. and Butt, P. (2008) [Multimedia Annotation and Community Folksonomy Building](#). *World Conference on Educational Multimedia, Hypermedia & Telecommunications (EDMEDIA) 2008* . pp. 2213-2220.
10. Tariq, M., Kumar, V., Khoja, S., Chowdhry, B. and Khan, M. K. (2008) [Smart travel service advisor using Semantic Web and Agent Technology](#). In: *COMPUTERS and SIMULATION in MODERN SCIENCE, Volume 1*, pp. 126-131, WSEAS Press. ISBN 978-960-474-010-9.
11. Tao, F. B., Khoja, S., Davis, H. and Gravell, A. (2008) [Academic Administration and Management Scenarios on the Semantic Web](#). In: *IEEE International Conference on Advanced Learning Technologies: ICALT 2008*, July 2008, Santander, Spain.
12. Hussain, S., Khoja, S., Hassan, N. and Lohana, P. (2008) [Effect of Schedule Compression on Project Effort in COCOMO II Model for Highly Compressed Schedule Ratings](#). In: *Wireless Networks, Information Processing and Systems*, pp. 202-214, Springer Berlin Heidelberg. ISBN 978-3-540-89852-8.
13. Rehman, A. A., Karim, A. and Khoja, S. (2008) [Blocking Probabilities in WDM Switching Networks using Overflow Analysis Method](#). In: *Wireless Networks, Information Processing and Systems*, pp. 314-318, Springer Berlin Heidelberg. ISBN 978-3-540-89852-8.

2007

14. Imam, A., Khoja, S. and Shariff, I. (2007) [Improving Software Quality – a benchmarking approach](#). In: *11th International Convention on Quality Improvement, Pakistan*, Nov 26-27, 2007, Karachi Pakistan.
15. Imam, A., Khoja, S. A. and Shariff, I. (2007) [Improving Software Quality: a Benchmarking Approach](#). Software Engineering Research and Practice CSREA Press. ISBN [1-60132-034-5](#).
16. Khoja, S. and Sana, F. (2007) [A low cost interactive distance learning solution](#). In: *6th Annual IEEE/ACIS International Conference on Computer and Information Science (ICIS 2007)*, 11-13 July, 2007, Melbourne, Australia.

17. Memon, Q. and Khoja, S. A. (2007) [RBAC and XML Security in Adhoc Networks](#). In: *International Symposium on Signal Processing and its Applications (ISSPA 2007)*, 12 - 15 February, 2007, Sharjah, UAE.
18. Memon, Q. and Khoja, S. A. (2007) [XML Implementation of Role Based Control in Healthcare Adhoc Networks](#). In: *Microwave, Antenna, Propagation and EMC Technologies for Wireless Communications, 2007 International Symposium on*, pp. 1223-1226, IEEE. ISBN 978-1-4244-1045-3.

2004

19. Khoja, S., Alvi, F. and Jabeen, Z. (2004) [Developing a Framework to Implement Security in Web Services](#). In: *Lecture Notes in Computer Science*, pp. 677-660, Springer Berlin / Heidelberg. ISBN 978-3-540-21988-0

2003

20. Alvi, F., Khoja, S. and Jabeen, Z. (2003) [Design Considerations for Implementing Security in Web Services](#). In: *2nd International workshop on Grid and Cooperative Computing (GCC 2003)*, December 2003, Shanghai, China.
21. Alvi, F., Khoja, S. and Jabeen, Z. (2003) [Developing a Framework to Implement Public Key Infrastructure Enabled Security in XML Documents](#). In: *7th International Multi topic Conference (INMIC) 2003*, 8-9 December 2003, GIKI, Pakistan.
22. Memon, Q. and Khoja, S. (2003) [Development of Hypervideo Platform Using Object Databases](#). In: *Proceeding of International Symposium on Telecommunications (IST2003)*, 16 - 18 August 2003, Isfahan, Iran.
23. Khoja, S. and Memon, Q. (2003) [Object-Database Approach for a Hypervideo Platform](#). *Malaysian Journal of Computer Science*, 16 (2). pp. 73-80. ISSN 0127-9084.

2002

24. Khoja, S. and Memon, Q. (2002) [Development of video based virtual studio](#). In: *IEEE INMIC 2002*, December 2002, Karachi Pakistan.
25. Khoja, S., Rahman, A. and Shaikh, Z. (2002) [Dynamic Distance Learning Framework using Problem Based Assessment](#). In: *International Conference on Use of Information Technology in Teaching of Science*, March 12-14, 2002, Islamabad, Pakistan.
26. Khoja, S. and Sheikh, J. (2002) [KIIT Digital Library: An open hypermedia Application](#). In: *International Conference on Use of Information Technology in Teaching of Science*, 12 - 14 March 2002, Islamabad, Pakistan.

2001

27. Khoja, S. (2001) [Thematic Indexing in Video Databases](#). PhD thesis, University of Southampton.

1999

28. Khoja, S. A. and Hall, W. (1999) [Thematic Video Indexing to support video database retrieval and query processing](#). In: *Multimedia Storage and Archiving Systems IV*.
29. Khoja, S. A. and Hall, W. (1999) [tvDBMS - A video database management system incorporating a thematic indexing model](#). In: *ACM Multimedia 99*.
30. Khoja, S. (1999) [Video Database Management System. A Mini thesis submitted for transfer of registration from M-Phil to PhD](#). MPhil Transfer thesis, University of Southampton.

1995

31. Halepota, A. S. A. M., Khoja, S. and Rehman, A. (1995) [A software Package Integrating vision techniques in menu driven interactive environment](#). In: *IEEE Workshop on Computer Vision and Parallel Processing*, January 15, 1995, Islamabad, Pakistan.

Countries traveled and attended International conferences

United States, United Kingdom, Canada, Netherlands, Germany, France, Tunisia, UAE, and Qatar.

P E R S O N A L

Date of Birth: May 07, 1972

Marital Status: Married

R E F E R E N C E S**Prof. Dame Wendy Hall, DBE, FREng**

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Vice Pres. Royal Society of Engineering, U.K
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