DR. FARHA NAZ LAKHANI

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SUMMARY OF QUALIFICATIONS

- Around 19 years of professional experience in the field of engineering & technology in various organisations mostly related to teaching at university level.
- Have successfully accomplished various tasks other than teaching, such as student counselling, supervision and assessment of academic projects by final year students, member of internship committee for students.
- Ability to adapt and scale as per job requirement and to meet deadlines.

WORK EXPERIENCE

• University of Leeds, United Kingdom (January 2020 todate)

Responsibilities: Teaching Fellow in School of Computing. Member of International pathway center, member of FYP assessment committee. Courses taught included Computer Processors, Programming Project, Introduction to web technologies and Web Application development.

• Habib University Karachi Pakistan (August 2017 to August 2019)

Responsibilities: Assistant Professor in School of Science & Engineering, Member of the lab committee, member of FYP assessment committee. Courses taught included Digital Logic Design, Embedded Systems, Operating Systems, Basic Electronics and Computer architecture.

Majmaah University Saudi Arabia (October 2015 to June 2017)

Responsibilities: Assistant Professor in College of Computer & Information Science, Coordinator for the CS group in CCIS College, Head of the exam review committee. Coordinator for CS department. Courses taught included Advanced web application development, Software Engineering, Computer organization and Selected topics in web technologies.

Bahria University Karachi Campus Pakistan(August 2013 to August 2015)

Responsibilities: Assistant Professor in the Computer & Software Engineering (C&SE) department, member of the research committee, Journal reviewer for BUJICT. Courses taught included Digital Logic Design, Basic Electronics and Embedded Control Systems.

SafeTTy Systems Ltd, UK (January 2014 to date part-time current)

Responsibilities: Working remotely as 'Senior Certification tutor' for Embedded C module to guide students remotely through email communication.

• University of Leicester, UK (October 2012 to June 2013)

Responsibilities: Lecturing/Teaching in the Department of Engineering. Delivered two full 15-credit modules on "Programming Embedded Systems" at undergraduate and MSc level.

- TTE Systems Ltd, UK (December 2011 to January 2013)
 Responsibilities: Online tutor for 'Embedded C Certification Course'. In this role I was responsible for working with in excess of 50 students as they worked on this popular programme by "Distance Learning".
- University of Leicester, UK (December 2009 to November 2011)

Responsibilities: I did various jobs during my PhD period, including work as a lab demonstrator, exam invigilator, time tabling, notes taking and serving as a guide at various university events.

- Bahria University Institute of Management & Computer Science Pakistan (2005 to 2008)
 Responsibilities: Assistant Professor in the Computer Science Engineering Department.
 Courses taught included "Computer Architecture and Organization", "Web Engineering" and "Client Server Programming"
- Khadim Ali Shah Bukhari Institute of Technology [KASBIT] Pakistan (2003 2005)
 Responsibilities: Lecturer in the Computer Science Department. Courses taught included "Modern Programming Languages" and "Object Oriented Analysis & Design".
- Jinnah University for Women Pakistan (2002-2003)
 Responsibilities: Lecturer in the Computer Science Department. Courses taught included "Introduction to Computer Science" and "Database Management Systems".
- JETinA GoldSoft Software House Pakistan (2000-2001)
 Responsibilities: Development Engineer: In this role I developed website for the company, developed presentations for seminars on Java technologies, involved in the development of Java based charting tool JETinAChart, developed complete Help System for the product using JavaHelp API, testing of product on various platforms.
- NED University of Engineering & Technology Pakistan(1998-2000)
 Responsibilities: Assistant Manager Data Processing: In this role I was responsible for the design, development & maintenance of the first official website of NED University
 http://www.neduet.edu.pk, performed detailed system analysis using the SDLC (System Development Life Cycle) approach for the mechanical engineering department, developed a preliminary report on system and procedures of audit section of University, contributed in the development of database in Oracle8 with Developer2000 as front end for the examination department of the University.

ACADEMIC BACKGROUND

- PhD (Embedded Systems Engineering)(April 2008 July2013)
 University of Leicester, United Kingdom
 My PhD work is mainly concerned with the software architectures used to design modern embedded applications.
- Master of Engineering (Computer Systems) (January 2004 June 2006)
 NED University of Engineering & Technology Karachi, Pakistan
 CGPA 3.25
- Bachelor of Engineering (Computer Systems) (August 1993 March 1998)
 NED University of Engineering & Technology Karachi, Pakistan.
 Final Year Result Grade A 1 (84.9%)

CONFERENCE REVIEWER

During my PhD I was selected to act as a reviewer ("Shepherd") for papers in the following conferences:

- 15th Annual European Conference on Pattern Languages of Programming, Irsee, Germany.
- Nordic Pattern Languages of Programming Conference, VikingPLoP 2012 Finland.
- 10th IEEE Multitopic International Conference, 2014 Pakistan.

MEMBERSHIPS & HONOURS

- Vice Chair ACM-W Chapter Majmaah University
- HEC (Pakistan) approved PhD Supervisor
- Life time member Pakistan Engineering Council (PEC) Islamabad, Pakistan
- Nominated member for National Curriculum Revision Committee (NCRC) HEC Islamabad.
- Member IET, UK
- Member ACM

LIST OF PUBLICATIONS

- 1. Lakhani, F, Faisal, N. and Pont, M. J. (2015) "A pattern collection to support the practical challenges involved in adopting international standards for safety-related embedded systems" Lecture Notes on Software Engineering ISSN: 2301-3559.
- 2. Lakhani, Fand Faisal, N. (2015) "Design patterns From architecture to embedded software development" IJCSI International Journal of Computer Science Issues, Volume 12, Issue 1, No 1, January 2015 ISSN (Print): 1694-0814 | ISSN (Online): 1694-0784
- 3. Lakhani, F. and Pont, M. J. (2012) "Empirical studies for the assessment of the effectiveness of design patterns in migration between software architectures of embedded applications". Journal of Software Engineering International Scholarly Research Network (ISRN), Volume 2012 Article ID: 259064 ISSN: 2090-7680 doi:10.5402/2012/259064
- Lakhani, F. and Pont, M. J. (2012) "Applying design patterns to improve the reliability of embedded applications through a process of architecture migration". Proceedings of the 9th IEEE International Conference on Embedded Systems and Software (ICESS 2012), Liverpool, UK. IEEE Computer Society: pp1563-1570
- 5. Lakhani, F., Wang, H. and Pont, M. J. (2011) "Supporting the migration between event-triggered and time-triggered software architectures: A small pattern collection intended for use by the developers of reliable embedded systems". Technical report ESRG 2011-09-01.
- Lakhani, F. and Pont, M.J. "Best practices for engineers to design safer systems", poster selected for presentation at the University of Leicester, Festival of Post Graduate Research (Leicester, UK, June 2011).
- Lakhani, F., Pont, M.J. and Das, A. (2010) "Improving the reliability of embedded systems as complexity increases: supporting the migration between event-triggered and time-triggered software architectures" Proceedings of the 15th Annual European Conference on Pattern Languages of Programming EuroPLoP'10, Irsee, Germany. Published by ACM New York, NY, USA. ISBN: 978-1-4503-0259-3
- 8. Lakhani, F. and Pont, M.J. (2010) "Using design patterns to support the migration between different system architectures" Proceedings of the 5th IEEE International Conference on Systems of Systems Engineering (SoSE), June 2010, Loughborough, UK: pp1-6.
- Lakhani, F. and Pont, M.J. (2010) "Code balancing as a philosophy for change: Helping developers to migrate from event-triggered to time-triggered architectures" Proceedings of the 2010 UK Electronics

- Forum, 30 June 1 July 2010, Newcastle, UK, Published by Newcastle University. ISBN: 978-0-7017-0232-8
- 10. Lakhani, F. and Pont, M.J. "Building in' safety in the electronic age", poster selected for presentation at the University of Leicester, Festival of Post Graduate Research (Leicester, UK, June 2010).
- 11. Lakhani, F., Pont, M.J. and Das, A. (2009) "Towards a pattern language which supports the migration of systems from an event-triggered pre-emptive to a time-triggered co-operative software architecture" Proceedings of the 14th Annual European Conference on Pattern Languages of Programming EuroPLoP'09, Irsee, Germany, 8-12 July 2009. Published by CEUR, volume 566, ISSN: 1613-0073: pp. F2-2 to F2-25
- 12. Lakhani, F., Pont, M.J. and Das, A. (2009) "Can we support the migration from event-triggered to time-triggered architectures using design patterns?" Proceedings of the 5th UK Embedded Forum, Leicester, UK, pp. 62-67. Published by Newcastle University. ISBN: 978-0-7017-0222-9.
- 13. Das, A., Lakhani, F., Gendy, A.K and Pont, M.J (2009). "Two simple patterns to support the development of reliable real-time embedded systems" 14th European Conference on Pattern Languages of Programs, EuroPLoP'09 (KlosterIrsee, Germany, 8 12 July 2009)
- 14. Lakhani, F. and Pont, M.J. "Staying safe in a world full of silicon chips", poster selected for presentation at the University of Leicester, Festival of Post graduate Research (Leicester, UK, June 2009).