

**DR. FARHA NAZ LAKHANI**  
**Assistant Professor**

**Education:**

Ph.D. Embedded Systems Engineering, University of Leicester, 2013.  
M.E Computer Systems Engineering, NED University of Engineering & Technology, 2006  
B.E. Computer Systems Engineering, NED University of Engineering & Technology, 1998

**Academic Experience:**

Academic Appointment – Majmaah University  
2015 Assistant Professor, Computer Science Department

Academic Appointment – Bahria University  
2008 Assistant Professor, Computer & Software Engineering Department

Academic Appointment – University of Leicester  
2012 Lecturer, Engineering Department

Academic Appointment – University of Leicester  
2009 Teaching Assistant, Computer Science & Engineering Department

Academic Appointment – Bahria Institute of Computer Science & Management  
2005 Lecturer, Computer Science & Engineering Department

Academic Appointment – KASB Institute of Technology  
2003 Lecturer, Computer Science Department

Academic Appointment – Jinnah University for Women  
2001 Instructor, Computer Science Department

**Non-Academic Experience:**

Software Engineer JETinA GoldSoft 2000

Assistant Manager Data Processing, NED University, 1998

**Certifications or Professional Registrations:**

Sun Certified Java Programmer

### **Current Membership in Professional Organizations:**

Pakistan Engineering Council  
IET  
ACM

### **Honors and Awards:**

Vice-Chair ACM-W Chapter Majmaah University  
Session Chair 10th IEEE Multi topic International Conference, 2014 Pakistan.  
HEC (Pakistan) approved PhD Supervisor  
Nominated member for National Curriculum Revision Committee (NCRC) HEC Islamabad

### **Service Activities (within and outside of the institution):**

CS Coordinator CCIS College  
Exam Review Committee Chair CS Department, Majmaah University  
Academic Advisor, CCIS Majmaah University  
Senior Certification Tutor (online) Safety Systems Ltd. UK.

### **Most Important Publications and Presentations (Past five years):**

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, F and 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
4. 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 9<sup>th</sup> 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.

6. 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).
7. 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 15<sup>th</sup> 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 5<sup>th</sup> IEEE International Conference on Systems of Systems Engineering (SoSE), June 2010, Loughborough, UK: pp1-6.
9. 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 14<sup>th</sup> 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 5<sup>th</sup> 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).