

# Muhammad Usman (Brief CV)

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Muhammad Usman is a PhD student in Software Engineering at Blekinge Institute of Technology, Sweden. He completed his Masters (Computer Science) from Mohammad Ali Jinnah University, Pakistan in 2006.

Before joining SERL-Sweden in 2013, he worked for several years in academia, where he designed and taught various computing and software engineering courses, and also supervised projects and theses for Bachelor and Master students of software engineering degree programs.

## **Research and Teaching (PhD Scholar), Blekinge Institute of Technology (BTH), Sweden** 2013 to Present

### **Research**

Usman's research is about planning and estimation in agile context. He worked with Ericsson, Sweden and also with companies in Brazil and Pakistan to improve their software effort estimation processes. Through this collaboration, the industrial partners were able to understand and manage the reasons behind planning and estimation challenges. Furthermore, he has helped them in improving and organizing their expert judgement based software estimation practices.

He has also worked in other software engineering research areas: requirements engineering, global software development and software architecture.

### **Teaching**

Usman is course responsible for software metrics - PA2559 course at Masters level in BTH. He had also been involved in teaching practical requirements engineering, research methodology, Verification and Validation courses at BTH.

## **Lecturer at International Islamic University Islamabad (IIUI)** 2007 to 2013

At IIUI Usman was involved with course instruction, curriculum design, liaison with industry and supervision of Bachelor projects and Master theses in computer science and software engineering degree programs. In projects and theses, the focus was to work closely with software industry.

## **Lecturer at Mohammad Ali Jinnah University (MAJU)** 2006 to 2007

At MAJU Usman was involved in teaching first cycle courses. He taught introduction to programming, software engineering, and data structure courses to Bachelors in CS students.

## **Program committees**

Usman has also worked as program committee member of several conferences. These include: Conference on Software Engineering Education and Training (CSEET) 2011 and 2012, International Workshop on Software Measurement and the International Conference on Software Process and Product Measurement (Mensura) 2017, IEEE International Multi Topic Conference (INMIC) 2012, Evaluation and Assessment in Software Engineering (EASE) 2017 as sub-reviewer.

He has also been reviewing articles submitted to SE journals such as Information and Software Technology, International Journal of Software Engineering and Knowledge Engineering.

## **Software Industry Experience**

Requirements Consultant Eycon (Pvt) Ltd. Pakistan  
2005 to 2006

Usman worked as requirements consultant with a software consulting company in Pakistan to lead work in requirements engineering phase, and also helped them in their architectural design phase.

# List of Publications

## Book Chapter

1. Naveed Ikram , Muhammad Usman, Javeria Samad, Abdul Basit, “Managing Requirements Risks: A Value Based Process”, book chapter in book: “Advances in Risk Management” InTech Publishers, ISBN 978-953-307-138-1, August 2010.

## Journal articles

2. Muhammad Usman, Ricardo Britto, Lars-Ola Damm, Jürgen Börstler. “Effort Estimation in Large-Scale Software Development: An Industrial Case Study”, in revision with Information and Software Technology, 2017.
3. Nauman bin Ali, Muhammad Usman. “Credibility of search in systematic reviews: towards a quality assessment framework for the automated search strategy”, In revision with Information and Software Technology, 2017.
4. Muhammad Usman, Ricardo Britto, Jürgen Börstler, and Emilia Mendes. "Taxonomies in software engineering: A systematic mapping study and a revised taxonomy development method." Information and Software Technology, 85 (May 2017), Pages 43-59.
5. Ricardo Britto, Muhammad Usman, Emilia Mendes. “A Taxonomy of Web effort Predictors”, Journal of Web Engineering, 2017, 16 (7&8), Pages 541-570.
6. Muhammad Usman, Jürgen Börstler, Kai Petersen. “An effort estimation taxonomy for agile software development”, International Journal of Software Engineering and Knowledge Engineering, 2017, 27 (4), Pages 671-674.
7. Ambreen, Talat, Naveed Ikram, Muhammad Usman, and Mahmood Niazi. "Empirical research in requirements engineering: trends and opportunities." Requirements Engineering. 2016, Pages 1-33.

## Conference papers

8. Ricardo Britto, Muhammad Usman, Nasir Mehmood Minhas, “A quasi-experiment to evaluate the impact of mental fatigue on study selection process”, In Proceedings of the 21st International Conference on Evaluation and Assessment in Software Engineering, pp. 264-269. ACM, 2017, Sweden.
9. Muhammad Usman, Emilia Mendes, and Jürgen Börstler. "Effort estimation in agile software development: a survey on the state of the practice." In Proceedings of the 19th International Conference on Evaluation and Assessment in Software Engineering, pp. 12:1 – 12: 10, ACM, 2015, China.

10. Ricardo Britto, Muhammad Usman. "Bloom's taxonomy in software engineering education: A systematic mapping study", In *Frontiers in Education Conference (FIE)*, pp. 1-8, IEEE, 2015, USA.
11. Muhammad Usman, Emilia Mendes, Francila Weidt, and Ricardo Britto. "Effort estimation in Agile Software Development: A systematic literature review." In *Proceedings of the 10th International Conference on Predictive Models in Software Engineering*, pp. 82-91. ACM, 2014, Italy.
12. Ricardo Britto, Muhammad Usman, Emilia Mendes," Effort estimation in Agile Global Software Development Context", *Agile Methods. Large-Scale Development, Refactoring, Testing, and Estimation, Lecture Notes in Business Information Processing*, Volume 199, pp. 182-192, 2014, Italy.
13. Britto, R.; Freitas, V.; Mendes, E.; Usman, M., "Effort Estimation in Global Software Development: A Systematic Literature Review," *IEEE 9th International Conference on Global Software Engineering (ICGSE)*, pp. 18-21, 2014.
14. Nadia Qureshi, Naveed Ikram, Muhammad Usman, "Evidence in Software Architecture, A Systematic Literature Review", In *Proceedings of the 17th International Conference on Evaluation and Assessment in Software Engineering*, pp. 97-106, ACM, 2014, Brazil.
15. Ikram Asghar and Muhammad Usman, "Motivational and De-motivational Factors for Software Engineers: An Empirical Investigation," *IEEE 11th International Conference on Frontiers of Information Technology*, pp. 66-71, 2013, Pakistan.
16. Mahmood Niazi, Mohamed El-Attar, Muhammad Usman and Naveed Ikram, "An Empirical Study Identifying High Perceived Value Requirements Engineering Practices in Global Software Development Projects", *The Seventh International Conference on Software Engineering Advances (ICSEA 2012)*, ), pp.283-288, November 18-23 2012, Portugal.
17. Smeea Arshad, Muhammad Usman, Naveed Ikram, "Knowledge Management Practices in GSD: A Systematic Literature Review", *the Seventh International Conference on Software Engineering Advances (ICSEA 2012)*, pp.516-523, November 18-23 2012, Portugal.
18. Mahmood Niazi, Mohamed El-Attar, Muhammad Usman and Naveed Ikram , "GlobReq: A Framework for Improving Requirements Engineering in Global Software Development Projects: Preliminary Results", *International Conference on Evaluation & Assessment in Software Engineering (EASE 2012)*, pp.166-170, May 14-15 2012, Spain.
19. Muneera Bano, Salma Imtiaz , Naveed Ikram , Mahmood Niazi, Muhammad Usman, "Causes of Requirement Change – A Systematic Literature Review", *International Conference on Evaluation & Assessment in Software Engineering (EASE 2012)*, pp.22-31, May 14-15 2012, Spain.
20. Huma Hayat, Muhammad Usman, Nauman Malik, Naveed Ikram, "Impact of Changing Communication Media on Conflict Resolution in Distributed Software Development

- Projects”, Fifth Malaysian Software Engineering Conference (MySEC 11), pp.189-194, December 13-14 2011, Malaysia.
21. Manan Qadir, Muhammad Usman , “Software Engineering Curriculum: A Systematic Mapping Study”, Fifth Malaysian Software Engineering Conference (MySEC 11), pp.269-274, December 13-14 2011, Malaysia.
  22. Ali Arshad, Muhammad Usman, “Security at Software Architecture Level, A Systematic Mapping Study”, 15th international conference on evaluation and assessment in software engineering (EASE), pp.164-168, April 11-12 2011, UK.
  23. Muhammad Usman, Javed Khan, Naveed Ikram, Manas Hardas, “Pedagogical and Structural Analysis of SE Courses”, 23rd IEEE Conference on Software Engineering Education and Training, pp.136-143, March 2010, USA.
  24. Nida Ahmed, Muhammad Usman, Naveed Ikram, “Value-Based Software Architecture Knowledge Management Tool”, The IASTED International Conference on Software Engineering SE 2010, Innsbruck, Austria, Feb 2010.
  25. Javeria Samad, Naveed Ikram, Muhammad Usman, “VRRM: A Value Based Requirements’ Risk Management Process”, The IASTED International Conference on Software Engineering (SE 2008) as part of the 26th IASTED International Multi-Conference on Applied Informatics, pp. 184-191, February 2008, Austria.

### **Google scholar**

[https://scholar.google.se/citations?hl=en&user=EuRCi9wAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.se/citations?hl=en&user=EuRCi9wAAAAJ&view_op=list_works&sortby=pubdate)