

Preface

QuASoQ 2015 is the 3rd International Workshop on Quantitative Approaches to Software Quality held in conjunction with the 22nd Asia-Pacific Software Engineering Conference (APSEC 2015) New Delhi, India – 1st December 2015. The workshop aims at gathering together researchers and practitioners to discuss new approaches and experiences in the application of state of the art techniques to measure, assess and evaluate the quality of both software systems and software development processes.

Software development organizations are always forced to produce software in the "required" quality. Hence, quality specification and quality assurance are crucial. Although there are lots of approaches to deal with quantitative quality management, it is still challenging to choose a suitable set of techniques that best fit to the specific project and organizations constraints. Moreover, standards like CMMI require to set up and apply quantitative methods to monitor and improve development processes.

Even though approaches, methods, and techniques are known for quite some time now little effort has been spent on the exchange on the real world problems with quantitative approaches. For example, only limited research has been devoted to the setup and maintenance of large scale measurement systems in industrial environments. Hence, one main goal of the workshop is to exchange experience, present new promising approaches and to discuss how to set up, organize, and maintain quantitative approaches to software quality.

Topics of Interest

- New approaches to measurement, evaluation, comparison and improvement of software quality
- Measurement and quantitative approaches in agile projects
- Case studies and industrial experience reports on successful or failed application of quantitative approaches to software quality Tools, infrastructure and environments supporting quantitative approaches
- Tools, infrastructure and environments supporting quantitative approaches
- Metrics and measurement approaches
- Metric programs in the context of CMMI improvement
- Approaches combining best measurement practices to yield better results
- Experience and processes on setup and maintenance of large scale measurement systems
- Empirical studies, evaluation and comparison of measurement techniques.

The program committee selected the papers based on their quality and novelty, and finally accepted five papers covering several topics. In order to foster a lively discussion, we apply the "author-discussant" scheme, where each author serves as discussant for a presentation given by another author.

Organizers and Committee

- Horst Lichter (Chair), RWTH Aachen University, Germany
- Toni Anwar (Co-Chair), UTM Johor Bahru, Malaysia
- Thanwadee Sunetnanta (Co-Chair), Mahidol University, Thailand
- Matthias Vianden (Co-Chair), Aspera GmbH, Aachen, Germany
- Wan M.N. Wan Kadir, UTM Johor Bahru, Malaysia
- Chumpol Krootkaew, NECTEC, Thailand
- Taratip Suwannasart, Chulalongkorn University, Thailand
- Tachanun Kangwantrakool, ISEM, Thailand
- Jinhua Li, Qingdao University, China
- Apinporn Methawachananont, NECTEC, Thailand
- Jarernsri L. Mitranont, Mahidol University, Thailand
- Nasir Mehmood Minhas, PMAS - AAUR Rawalpindi Pakistan
- Chayakorn Piyabunditkul, NSTDA, Thailand
- Sansiri Tanachutiwat, Thai German Graduate School of Engineering, TGGS, Thailand
- Hironori Washizaki, Waseda University, Japan
- Hongyu Zhang, Tsinghua University, China

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Sai Anirudh Karre and Y. Raghu Reddy
2. Automatic Recommendation of Software Design Patterns Using Anti-patterns in the Design Phase: A Case Study on Abstract Factory
Nadia Nahar and Kazi Sakib
3. Correctness of Semantic Code Smell Detection Tools
Neeraj Mathur and Y. Raghu Reddy
4. A Decision Support Platform for Guiding a Bug Triage for Resolver Recommendation Using Textual and Non-Textual Features
Ashish Sureka, Himanshu Singh, Manjunat Bagewadi, Abhishek Mitra and Rohit Karanth
5. The Way Ahead for Bug-fix time Prediction
Meera Sharma, Madhu Kumari and V B Singh