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SWC Software Construction

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Horst Lichter

Marion Zinner
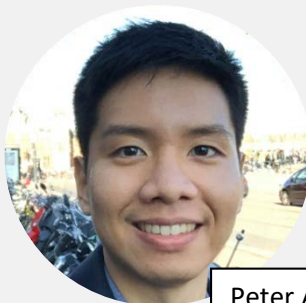
Andrej Dyck

Christian Plewnia

Konrad Fögen

Simon Hacks

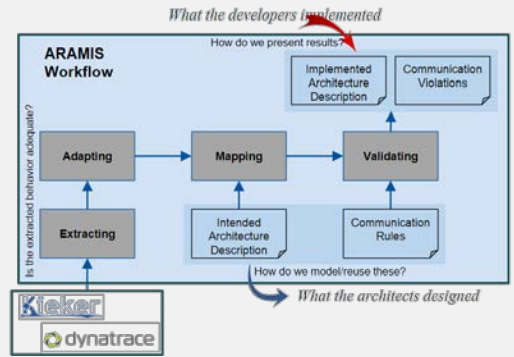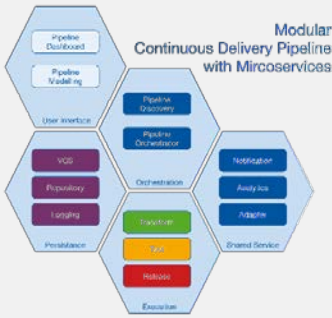Firdaus Harun

Ana Nicolasecu

Andreas Ganser

Peter Alexander

Andreas Steffens

RESEARCH PROJECTS

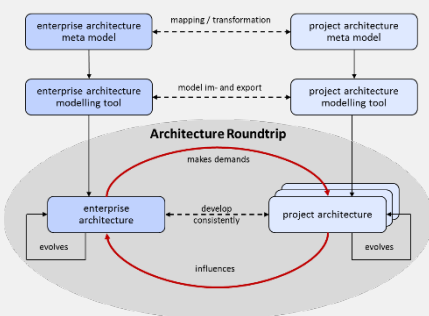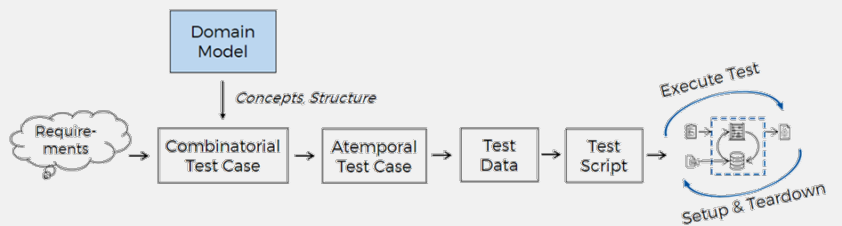## Behavior-based Architectural Conformance Checking
Ana Nicolaescu

DevOps-aware Software Engineering
Andreas Steffens

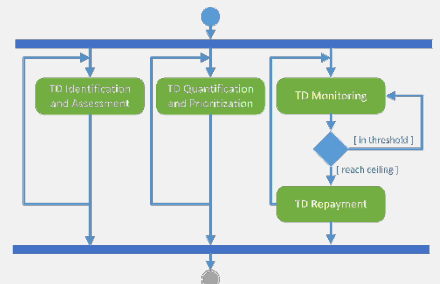## Domain Model-based Test Data Generation for Application Systems
Konrad Fögen

Enterprise Architecture Roundtrip-Management
Simon Hacks

Cost Benefit based Technical Debt Management
Firdaus Harun

HIGHLIGHTS

DECEMBER 2016 : 4th QuASoQ Workshop in Hamilton, New Zealand

Collocated with the 23th Asia-Pacific Software Engineering Conference (APSEC 2017), we organized the 4th International Workshop "Quantitative Approaches to Software Quality" (QuASoQ) in Hamilton.

Konrad Fögen was chairing the workshop!

FEBRUARY: 2nd CSE Workshop in Hannover

Co-located with the German Software Engineering Conference, we organizes the 2nd Workshop on Continuous Software Engineering together with colleagues from TU Munich and Nurnberg University

MAY: Andreas Steffens visited UTM Johor Bahru, Malaysia

In the context of our DAAD project Andreas Steffens gave a one week compact course at UTM Johor Bahru.

Furthermore he visited the MCMC myMaker IoT Lab in Kuala Lumpur.

HIGHLIGHTS

MAY: 18th International Conference on Agile Software Development

Together with Hubert Baumann (TUD) and Matthias Riebisch (Uni Hamburg) we organized the scientific track of the 18th International Conference on Agile Software Development in Cologne.

Furthermore Firdaus, Harris Kristanto Husien, and Jan Thomas supported the conference as student volunteers .

NOVEMBER: Andreas Ganser's PhD Defense

On November 6, Andreas Ganser successfully passed his Ph.D. defense on "Operation-Based Model Recommenders".

Thanks to Prof. Matthias Riebisch for supporting this defense!

Andreas is now with NTT Data Munich.

Congratulations!

NEW RESEARCH PROJECTS

We are happy to start two new research projects in co-operation with **Traveltainment** and **Wirecard-SUPR**.
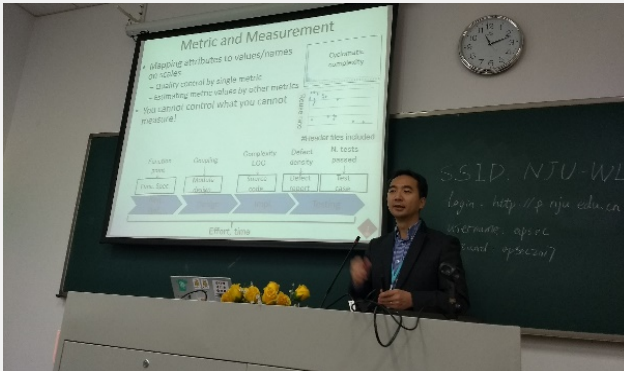
The first one focuses on "Evaluation and Application of DevOps supporting Software Engineering Technologies".

The second one is on "Software Architecture Migration and Evolution".

Highlights

December: 5th QuASoQ Workshop in Nanjing, China

Collocated with the 24th Asia-Pacific Software Engineering Conference (APSEC 2017), we organized the 5th International Workshop "Quantitative Approaches to Software Quality" (QuASoQ) in Nanjing.

The key note was given by Hironori Washizaki, Waseda University, Tokyo.

November: Best Paper Award at APSEC 2017 in Nanjing, China

The paper entitled "On Adequate Behavior-based Architecture Conformance Checks" by Ana Nicolaescu, Horst Lichter and Veit Hoffmann received one of the three Best Paper Awards at the 24th Asia-Pacific Software Engineering Conference, 4-8 December 2017, Nanjing, Jiangsu, China.

188 papers were submitted from all over the world (43countries) and 51 papers were accepted this year. The best 10 papers were on the table of the best paper awards according to the score of the paper reviews. Then, 5 papers were nominated by program committee members' voting. Finally, 3 papers were awarded after hearing their presentations.

Congratulations!

PUBLICATIONS

F. Timm, S. Hacks, F. Thiede, D. Hintzpeter (2017): **Towards a Quality Framework for Enterprise Architecture Models**. In Proceedings of the 5th International Workshop on Quantitative Approaches to Software Quality (QuASoQ 2017) co-located with APSEC 2017, Nanjing, China, December 4, 2017, CEUR-WS.org, Vol. 2017, 14-21.

A. Nicolaescu, J. Thomas, H. Lichter (2017): **Static and Dynamic Architecture Conformance Checking: A Systematic, Case Study-Based Analysis on Tradeoffs and Synergies**. In Proceedings of the 5th International Workshop on Quantitative Approaches to Software Quality (QuASoQ 2017) co-located with APSEC 2017, Nanjing, China, December 4, 2017, CEUR-WS.org, Vol. 2017, 6-13.

A. Nicolaescu, H. Lichter, V. Hoffmann (2017): **On Adequate Behavior-based Architecture Conformance Checks**. In 24th Asia-Pacific Software Engineering Conference (APSEC 2017), Nanjing, China, December 4-8, 2017 (to be published).

L. Andika, A. Dyck, H. Lichter (2017): **Towards A Design for An Extendable Reporting Interface**. In Procedia Computer Science, Vol. 116, 318-325.

H. K. Husien, M. F. Harun, H. Lichter (2017): **Towards a Severity and Activity based Assessment of Code Smells**. In Procedia Computer Science, Vol. 116, 460-467.

S. Hacks, M. Brosius, S. Aier (2017): **A Case Study of Stakeholder Concerns on EAM**. In Proceedings of the 2017 IEEE 21st International Enterprise Distributed Object Computing Conference Workshops and Demonstrations (EDOCW 2017), 50-56.

R. Tim, S. Tanachutiwat, M. Vukadinovic, H. J. Schlebusch, H. Lichter (2017): **Continuous integration processes for modern client-side web applications**. In 5th International Electrical Engineering Congress (iEECON), 1-4.

S. Hacks, H. Lichter (2017): **Optimizing Enterprise Architectures Using Linear Integer Programming Techniques**. In M. Eibl, M. Gaedke (eds), INFORMATIK 2017, Gesellschaft für Informatik, Bonn, 623-636.

M. Deininger, H. Lichter, J. Ludewig, K. Schneider (2017): **Studienarbeiten- Ein Leitfaden zur Erstellung, Durchführung und Präsentation wissenschaftlicher Abschlussarbeiten am Beispiel Informatik**, 6. Aufl.. vdf Hochschulverlag AG, Zürich.

H. Baumeister, H. Lichter, M. Riebisch (eds) (2017): **Agile Processes in Software Engineering and Extreme Programming** – Proceedings of 18th International Conference, XP 2017, Cologne, Germany, May 22-26, 2017. Springer International Publishing AG.

M. Vianden (2017): **Systematic Metric Systems Engineering – Reference Architecture and Process Model**. Shaker, Aachen.

V. von Hof, K. Fögen, H. Kuchen (2017): **Detecting Spring Configurations Errors**. In Proceedings of the 32nd ACM Symposium on Applied Computing, SAC 2017, Marrakech, Marocco, April 3-7, 2017, 1505-1512.

S. Krusche, H. Lichter, D. Riehle, A. Steffens (eds) (2017): **Proceedings of the 2nd Workshop on Continuous Software Engineering (CSE 2017)**, Hannover, Februar 20th, 2017. CEUR-WS.org.

S. Krusche, H. Lichter, D. Riehle, A. Steffens (2017): **Report of the 2nd Workshop on Continuous Software Engineering**. In Proceedings of the 2nd Workshop on Continuous Software Engineering (CSE 2017), CEUR-WS.org, Vol. 1806, 1-6