

## **Publications 2020**

Azeem Ahmad, Ola Leifler, Kristian Sandahl. "An Evaluation of Machine Learning Methods for Predicting Flaky Tests". In Proceedings of the 8th International Workshop on Quantitative Approaches to Software Quality, pp 37-48

Al-Sabbagh KW, Hebig R, Staron M. The Effect of Class Noise on Continuous Test Case Selection: A Controlled Experiment on Industrial Data. InInternational Conference on Product-Focused Software Process Improvement 2020 Nov 25 (pp. 287-303). Springer, Cham.

Al-Sabbagh KW, Staron M, Ochodek M, Hebig R, Meding W. Selective Regression Testing based on Big Data: Comparing Feature Extraction Techniques. In2020 IEEE International Conference on Software Testing, Verification and Validation Workshops (ICSTW) 2020 Oct 24 (pp. 322-329). IEEE.

Al-Sabbagh KW, Staron M, Hebig R, Meding W. Improving Data Quality for Regression Test Selection by Reducing Annotation Noise. In 2020 46th Euromicro Conference on Software Engineering and Advanced Applications (SEAA) 2020 Aug 26 (pp. 191-194). IEEE.

Maryam Bagheri, Edward A. Lee, Eunsuk Kang, Marjan Sirjani, Ehsan Khamespanah, Ali Movaghar: Lightweight Formal Method for Robust Routing in Track-based Traffic Control Systems. MEMOCODE 2020: 1-10

T. Besker, H. Ghanbari, A. Martini, and J. Bosch: "The Influence of Technical Debt on Software Developer Morale". Journal of Systems and Software 2020

T. Besker, A. Martini, and J. Bosch: "Carrot and Stick approaches when managing Technical Debt". Third International Conference on Technical Debt 2020, Best paper Award

T. Besker," Technical Debt: An empirical investigation of its harmfulness and on management strategies in industry". Thesis for the Degree of Doctor of Philosophy, Chalmers 2020

Block L, El Merhi A, Liljencrantz J, Naredi S, Staron M, Odenstedt Hergès H. Cerebral ischemia detection using artificial intelligence (CIDAI)—A study protocol. Acta Anaesthesiologica Scandinavica. 2020 Oct;64(9):1335-42.

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Elliot VH, Paananen M, Staron M. Artificial intelligence for decision-makers. Journal of Emerging Technologies in Accounting. 2020;17(1):51-5.

Eduard Paul Enoiu, Gerald Tukseferi, Robert Feldt, Towards a Model of Testers' Cognitive Processes: Software Testing as a Problem Solving Approach (Nov 2020), IEEE International Workshop on Human and Social Aspects of Software Quality (HASQ 2020)

Figalist, Iris, Christoph Elsner, Jan Bosch, and Helena Holmström Olsson. "Breaking the Vicious Circle: Why AI for software analytics and business intelligence does not take off in practice." In 2020 46th Euromicro Conference on Software Engineering and Advanced Applications (SEAA), pp. 5-12. IEEE, 2020.

Figalist, Iris, Christoph Elsner, Jan Bosch, and Helena Holmström Olsson. "An End-to-End Framework for Productive Use of Machine Learning in Software Analytics and Business Intelligence Solutions." In International Conference on Product-Focused Software Process Improvement, pp. 217-233. Springer, Cham, 2020.

Figalist, Iris, Christoph Elsner, Jan Bosch, and Helena Holmström Olsson. "Fast and curious: A model for building efficient monitoring-and decision-making frameworks based on quantitative data." Information and Software Technology 132 (2021): 106458.

Figalist, Iris, Marco Dieffenbacher, Isabella Eigner, Jan Bosch, Helena Holmström Olsson, and Christoph Elsner. "Mining Customer Satisfaction on B2B Online Platforms Using Service Quality and Web Usage Metrics." In 2020 27th Asia-Pacific Sofwtare Engineering Conference (APSEC). IEEE, 2020.

Giorgio Forcina, Ali Sedaghatbaf, Stephan Baumgart, Ali Jafari, Ehsan Khamespanah, Pavle Mrvaljevic, Marjan Sirjani: Safe Design of Flow Management Systems Using Rebeca. J. Inf. Process. 28: 588-598 (2020)

T. Fredriksson, J. Bosch, and H. H. Olsson, 'Machine learning models for automatic labeling: A systematic literature review', in ICSOFT 2020 - Proceedings of the 15th International Conference on Software Technologies, Virtual, Online, Frankrike, 2020, pp. 552–566.

Fredriksson, T., Mattos, D., Bosch, J., & Olsson, H. (2020). Data Labeling: An Empirical Investigation into Industrial Challenges and Mitigation Strategies. In International Conference on Product-Focused Software Process Improvement (pp. 202–216)

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### Publications 2020

Robbert Jongeling, Antonio Cicchetti, Federico Ciccozzi, Jan Carlson: "Towards boosting the OpenMBEE platform with model-code consistency". Workshop on Open Model Based Engineering Environment (OpenMBEE) 2020

Robbert Jongeling, Johan Fredriksson, Federico Ciccozzi, Antonio Cicchetti, Jan Carlson: "Towards Consistency Checking Between a System Model and its Implementation". International Conference on Systems Modelling and Management (ICSMM) 2020

Robbert Jongeling: "Advancing Continuous Model-Based Development in Industry". Licentitate Thesis Mälardalen University 2020

John, M.M., Olsson, H.H. and Bosch, J., 2020, June. Developing ML/DL models: A design framework. In Proceedings of the International Conference on Software and System Processes (pp. 1-10).

John, M.M., Olsson, H.H. and Bosch, J., 2020, August. Al on the Edge: Architectural Alternatives. In 2020 46th Euromicro Conference on Software Engineering and Advanced Applications (SEAA) (pp. 21-28). IEEE.

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Maro, S. H.; Steghöfer, J.-P.; Knauss, E.; Horkoff, J.; Kasauli, R.; Korsgaard, J. L.; Wartenberg, F.; Strøm, N. J. & Alexandersson, R. (2020): Managing Traceability Information Models: Not such a simple task after all. In: IEEE Software.

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Fereidoun Moradi, Sara Abbaspour Asadollah, Ali Sedaghatbaf, Aida Causevic, Marjan Sirjani, Carolyn L. Talcott: An Actor-Based Approach for Security Analysis of Cyber-Physical Systems. FMICS 2020: 130-147

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Ochodek M, Kopczyńska S, Staron M. Deep learning model for end-to-end approximation of COSMIC functional size based on use-case names. Information and Software Technology. 2020 Jul 1;123:106310.

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Ochodek M, Staron M, Meding W. On Identifying Similarities in Git Commit Trends—A Comparison Between Clustering and SimSAX. InInternational Conference on Software Quality 2020 Jan 14 (pp. 109-120). Springer, Cham.

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Raj, A., Bosch, J., Olsson, H. H., & Wang, T. J, "Towards automated detection of data pipeline faults". Proceedings in the 26rd Asia-Pacific Software Engineering Conference (APSEC) 2020

Sanchez CC, Capilla R, Staron M. Estimating the Complexity of Architectural Design Decision Networks. IEEE Access. 2020 Sep 11;8:168558-75.

Zeinab Sharifi, Ramtin Khosravi, Marjan Sirjani, Ehsan Khamespanah: Towards Formal Analysis of Vehicle Platoons Using Actor Model. ETFA 2020: 1820-1827

Marjan Sirjani, Edward A. Lee, Ehsan Khamespanah: Model Checking Software in Cyberphysical Systems. COMPSAC 2020: 1017-1026

Marjan Sirjani, Luciana Provenzano, Sara Abbaspour Asadollah, Mahshid Helali Moghadam: From Requirements to Verifiable Executable Models Using Rebeca. SEFM 2020: 67-86

Marjan Sirjani, Edward A. Lee, Ehsan Khamespanah, Verification of cyberphysical systems, Mathematics 8 (7), 1068

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