Preface of the 1st International Workshop on Mining Software Repositories for Software Architecture (MSR4SA'21)

Mohamed Soliman[1], Ivano Malavolta[2] and Mehdi Mirakhorli[3]

[1]*University of Groningen, Groningen, The Netherlands*
[2]*Vrije Universiteit Amsterdam, Amsterdam, The Netherlands*
[3]*Rochester Institute of Technology, New York, USA*

Abstract
Mining software repositories (MSR) became essential to support several software architectural design activities, such as architectural recovery, architectural knowledge capturing, mining architectural tactics, etc. Nevertheless, MSR to support software architecture (SA) is a challenging task, which requires expertise and focus. Moreover, MSR and SA are two separate communities with a small intersection. On the one hand, SA researchers are concerned with proposing approaches to support architectural activities. On the other hand, the MSR community exploits different software repositories, and applies systematically many data mining techniques. MSR4SA aims to create the starting point for a dedicated research community, which focuses on applying MSR techniques to resolve architectural problems.

Keywords
Software Architecture, Mining Software Repositories

1. Motivation and Objectives

The goal of MSR4SA is to gather researchers and practitioners from both the MSR and SA communities to create the starting point for a dedicated research community, which focuses on applying MSR techniques to resolve architectural problems. Moreover, we aim to create the first future research agenda for the research area of MSR for SA.

This is the first edition of the MSR4SA workshop and it will be held jointly with SAEroCon 2021, the 8th Workshop on Software Architecture Erosion and Architectural Consistency. The MSR4SA 2021 program includes one keynote by Nenad Medvidovic (Professor of Computer Science, University of Southern California) titled "Mining Architectural Information to Stem Technical Debt", 2 paper presentations, and a working session to discuss challenging of MSR for software architecture. MSR4SA 2021 received 2 submissions. Each submission went through a thorough reviewing process, with each paper receiving at least three reviews. After a discussion, we have accepted both submissions. We expect the workshop to pave the ground for having a dedicated research community focussing on the integration of MSR research with software architecture research (and practice). The list of accepted papers is published at the workshop website:

https://msr4sa.github.io/msr4sa2021/

The program committee members of MSR4SA 2021 are:

- Michel Albonico, Vrije Universiteit Amsterdam | Federal University of Technology - Parana (UTFPR), The Netherlands
- Francesca Arcelli Fontana, University of Milano-Bicocca, Italy
- Neil Ernst, University of Victoria, Canada
- Bradley Schmerl, Carnegie Mellon University, USA
- Roberto Verdecchia, Vrije Universiteit Amsterdam, The Netherlands
- Ipek Ozkaya, SEI - Carnegie Mellon University, USA
- Magiel Bruntink, Software Improvement Group, The Netherlands
- Antonino Sabetta, SAP Labs, France
- Heiko Koziolek, ABB Corporate Research, Germany
- Elisa Yumi Nakagawa, University of São Paulo, Brasil
- Peng Liang, Wuhan University, China
- Barbora Buhnova, Masaryk University, Czech Republic
- Arie van Deursen, Delft University of Technology, The Netherlands
- Paris Avgeriou, University of Groningen, The Netherlands
- Muhammad Ali Babar, University of Adeleide, Australia

- Ian Gorton, Northeastern University, USA
- Yuanfang Cai, Drexel University, USA
- Rick Kazman, University of Hawaii , USA
- Stefan Wagner, University of Stuttgart, Germany
- David Lo, Singapore Management University, Singapore
- Matthias Galster, University of Canterbury, New Zealand
- Patrick Mäder, Technische Universität Ilmenau, Germany
- Joshua Garcia, University of California, Irvine, USA
- Mauricio Aniche, Delft University of Technology, The Netherlands
- Massimiliano Di Penta, University of Sannio, Italy
- Peng Liang, Wuhan University, China

We are most grateful to all the authors for their submissions to MSR4SA 2021, and to the invited Program Committee members for their valuable time and effort in reviewing and discussing the submitted papers. We also want to extend our gratitude to the organizers of ECSA 2021 for their support in the organization of the workshop and the publication of the proceedings.

We look forward to seeing you at MSR4SA and ECSA 2021!

Mohamed Soliman (University of Groningen, The Netherlands) Ivano Malavolta (Vrije Universiteit Amsterdam, The Netherlands) Mehdi Mirakhorli (Rochester Institute of Technology, USA) — MSR4SA 2021 workshop co-organizers