Models and Evolution Workshop

CALL FOR PAPERS
Co-located with MODELS 2019 - 15-17 September 2019 Munich, Germany
http://www.models-and-evolution.com

Scope. Software artefacts constantly increase in complexity, variety and novelty. Environment and business constraints, user requirements and new insights put additional pressure on their adaptability, availability, reliability and quality: they continuously need to be up to date. But evolution issues are critical, complex and costly to manage. They concern requirements, architecture, design, source code, documentation, integration or deployment. They also typically affect various kinds of models (data, behavioral, domain, source code or goal models). Addressing and managing these varieties of changes is essential. Models and meta-models, the cornerstone of complex software systems' abstractions, represent a powerful mean for facing software evolution challenges by ensuring a more abstract and expressive modeling of software evolution. They can help and guide software evolution and can enforce and reduce critical risks and important involved resources. The workshop puts the focus on Models and Evolution by considering two main sides: (1) Managing software evolution needs by relying on the high-level abstraction power of models and meta-models. (2) Managing model and metamodel evolution needs and the co-evolution of all related software artefacts by putting attention to their increasing evolution issues as they become primary artefacts.
ME 2019 will bring together researchers and practitioners to share experiences in dealing with the various forms of models and evolution. It combines a strong practical focus with theoretical approaches as required in any discipline to support engineering practices. ME 2019 targets researchers and practitioners on model-driven engineering to meet, disseminate and exchange ideas, identify the key issues related to the problem of models and evolution and explore possible solutions and future work.

Topic. Contributions are solicited on all aspects of models and evolution, its foundations, practices and technologies. In particular, we encourage submissions from both academia and industry about the following (non-exhaustive) list of topics:

- Formalisms, theories, formal approaches, methods and languages for expressing and understanding model-driven software evolution
- Supporting processes and tools for managing model-driven software evolution
- (Co-)evolution and (co-)adaptation of models, meta-models and modeling languages; classification of (co-)evolution scenarios
- Conformance checking, inconsistency management, synchronization, differencing, comparison, impact analysis of evolving models
- Transformation techniques for evolving models: restructuring, refactoring, migration, translation, composition, versioning, etc.
- Maintenance and evolution of domain-specific languages Maintenance and evolution of model transformations Traceability maintenance, verification, and validation of evolving models, evolving model transformations, and evolving modeling languages; runtime models
- Analysis of model maintainability
- Variability management using models
- Model-driven software architecture recovery, reverse architecting, reconstruction, migration and software release engineering
- Model-based and model-related techniques for legacy systems evolution and systems integration
- Reusable evolution solutions and patterns
- Evolution issues in new and emerging systems and paradigms (e.g., cyber-security, cyber-physical systems, systems of systems, systems engineering, Internet of Things, cloud computing and its Software, Platform, Infrastructure (SPI) model, data analytics, big data, social media, devices and services, mobile applications, open source software, sustainability and modeling for social good, open architectures, product-line architectures, software ecosystems, Service- Oriented Architecture (SOA), micro-services, enterprise architectures) Model-driven software evolution regarding energy-awareness and sustainability
- Training, education, and certification around software evolution
- State-of-the-art and state-of-practice in software evolution Empirical studies, industrial needs, experience reports and experiments in software evolution
- Tools and methods supporting all of the above topics

Submission guidelines. We solicit papers of the following types:

1. Research papers (max. 10 pages) providing novel contributions on topics of the workshop presenting novel ideas, addressing challenging problems, or making practical contributions.
2. Position papers (max. 6 pages):
    a. Work in progress papers presenting early work and preliminary research results of young researchers in topics related to the workshop.
    b. Visionary papers proposing visionary and strategic ideas and/or looking for collaborations around international projects.
    c. Industrial experience papers reporting about experiences in the area of models and evolution, novel industrial tools, and positions from industry about experience and/or case studies about managing or putting into practice model-driven software evolution solutions are highly appreciated.
3. Tool presentations (max. 6 pages) presenting (experience with) tools (which may be either research prototypes or commercial tools) that are fully/partially dedicated to supporting the model-based software evolution and evolution issues encountered in model-based development.

Contributions must be written in English, adhere to the IEEE formatting, and be submitted through EasyChair

https://easychair.org/conferences/?conf=me2019

All submissions must be original work and must not have been previously published or being under review elsewhere. For each accepted paper, at least one of the authors must register for the workshop, participate fully in the workshop, and present the paper at the workshop. Accepted papers will be published as IEEE online proceedings, and indexed in DBLP and Scopus.

Important dates.

- Abstract submission: 28/06/2019
- Paper submission: 05/07/2019
- Notification to authors: 22/07/2019
- Workshop date: September 15-17 /09/ 2019 (TBA)

Organizers.

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Special Issue
Best ME 2018-2019 papers will be invited to submit an extended version for an Special Section in the Journal of Object Technology. This special issue is also open to submissions by anyone interested in the topic.

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