Call for Contributions

Inform the Chair: with the Title of your Contribution
Submission URL:
https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=PATTERNS+2021+Special
Please select Track Preference as **EMPAT-2021**
3. Note: *For 2021, all events will be held in a hybrid mode: on site or virtual choices (live, prerecorded videos, voiced presentation slides, and .pdf slides). We hope for better times allowing us to return to the traditional on-site scientific events. However, we are ready to adapt any which way the conditions dictate.*

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Special track

EMPAT-2021: Evolvable Modularity Patterns

Chair and Coordinator

Prof. Dr. Herwig Mannaert, University of Antwerp, Belgium
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along with

PATTERNS 2021, The Thirteenth International Conferences on Pervasive Patterns and Applications
https://www.iaria.org/conferences2021/PATTERNS21.html
April 18, 2020 - April 22, 2021, Porto, Portugal

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Modularity and hierarchical structures are widely accepted and touted in many disciplines as essential elements of design and engineering. In seminal books, like "The Sciences of the Artificial" by Herbert Simon (1969), and "The Power of Modularity" by Carliss Baldwin and Kim Clark (2000), the main concepts and advantages of modularity have been presented in a domain-independent analysis. In several disciplines, knowledge for the design of modular and hierarchical architectures, is collected and represented in design patterns, providing solutions to recurring problems. Even though their origins lie in the field of architecture, patterns and pattern approaches have seen their most extensive use and development in computing and software engineering domains.

Modular structures and design patterns are in general associated with advantages like complexity reduction, evolvability and reuse. However, when examining the evolution of modular structures under change, a far more complex behavior becomes apparent. Some modular structures are impressive examples of evolvability, whereas others seem to severely lack flexibility, from software systems requiring ever increasing maintenance budgets, to the massive investments required to develop a new airplane which is seemingly merely a larger version of an existing model.

The goal of EMPAT is to explore the potential of Patterns for modular architectures, to provide the levels of evolvability required in the ever faster changing world we currently live in. Since, at their core, patterns are a method to collect and transfer knowledge; these patterns may be discipline-dependent, as well as generic or discipline-independent. They may also imply the adaptation of a pattern solution to another domain. EMPAT invites contributions about pattern approaches that provide some features regarding evolvability that can be proven ex-ante. The topic of evolvable design patterns seems highly relevant today, if only because it is related to some of the most pressing challenges our society faces: scalability and sustainability of man-made artifacts.

Topics of EMPAT-2021 encompass, but are not limited to:

- Basics on evolvable patterns
- Evolvability analysis of pattern frameworks, models, and languages
- Collection and dissemination of patterns exhibiting evolvability
- Knowledge transfer methods for evolvable patterns
- Domain-oriented patterns exhibiting evolvability
- Reuse of patterns exhibiting evolvability

Important Datelines
- Inform the Chair: *As soon as you decide to contribute.*
       Submission: March 4, 2021
       Notification: March 20, 2021
       Registration: April 1, 2021
       Camera ready: April 1, 2021

Contribution Types
- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on www.iaria.org]
- Presentations: slide only [slide-deck posted on www.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Paper Format
- See: http://www.iaria.org/format.html
- Before submission, please check and comply with the editorial rules: http://www.iaria.org/editorialrules.html

Publications
- Extended versions of selected papers will be published in IARIA Journals: http://www.iariajournals.org
- Print proceedings will be available via Curran Associates, Inc.: http://www.proceedings.com/9769.html
- Articles will be archived in the free access ThinkMind Digital Library: http://www.thinkmind.org

Paper Submission
https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=PATTERNS+2021+Special
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Registration
- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at http://www.iaria.org/registration.html

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