23rd International Configuration Workshop

Proceedings of the 23rd International Configuration Workshop

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Michel ALDANONDO, Andreas FALKNER, Alexander FELFERNIG, Martin STETTINGER
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Preface

Product configuration is a special type of design approach where the product being configured is composed from instances of a set of predefined component types that can be combined in ways defined by a set of constraints. This task requires powerful knowledge representation formalisms and acquisition methods to capture the variety and complexity of configurable products. Furthermore, efficient reasoning methods are required to support intelligent interactive behavior, solution search, satisfaction of user preferences, personalization, optimization, reconfiguration, and diagnosis.

Starting at the AAAI'96 Fall Symposium, a series of successful workshops has provided a forum for presentation of high-quality research in all technical areas related to product configuration and for the exchange of ideas, evaluations, and experiences especially related to the use of AI techniques in the configuration context. The workshops have attracted both researchers working in the various fields of Artificial Intelligence and System Engineering and industry representatives interested in the relationship between configuration technology and the business problem behind configuration and mass customization. The 23rd International Workshop on Configuration (https://confws21.ist.tugraz.at/) follows this tradition and is hosted by Siemens in Vienna as a stand-alone two-day event.

13 papers were selected for publication in these proceedings after a review by three independent reviewers per paper. Two more papers will be only presented on the Configuration Workshop and thus increase the opportunity for fruitful discussions. Two invited talks (Rick Rabiser: Mastering Variability in Software-Intensive Cyber-Physical Production Systems, Daniel Schall: Intelligent Edge – the Path towards AI in Industrial Applications) explore the configurability of modern production systems which is necessary for manufacturing configured products.

The selection of papers shows the full scope of product configuration, covering a variety of interesting topics, such as knowledge modeling, integration of user-centered practices, solving approaches, open domain handling, application use cases, learning heuristics and search strategies, preference elicitation, simulations, etc.

Michel Aldanondo, Andreas Falkner, and Alexander Felfernig
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