6th Int. Workshop on Declarative/Decision/Hybrid Mining and Modelling for Business Processes (DeHMiMoP 2018)

To be held in conjunction with BPM 2018.

https://ai.wu.ac.at/dehmimop2018/

Call for Papers

Processes and business process models involve *rules* and *decisions* describing the premises and possible outcomes of specific situations. However, important though they are, rules and decisions are often hidden in process flows, process activities or in the head of employees (tacit knowledge), so that they need to be discovered using state-of-art intelligent techniques. For knowledge-intensive processes it is common that rules and decisions, as opposed to the process-flow, define the allowed behaviour of a process. E.g., the major purpose of an insurance claim process is to ensure that the rules governing the claim are being followed and to arrive at a final decision.

While traditional imperative notations such as BPMN excel at describing "happy paths", they turn out to be rather inadequate for modelling rules and decisions. Imperative notations indeed tend to describe possible behaviour as alternative, restricted flows. But encompassing all possible variations makes imperative models cluttered and thus impractical in highly flexible scenarios. Against this background, a new declarative modelling paradigm has been proposed that aims to directly capture the business rules or constraints underlying the process. The approach has gained momentum in recent years, and several declarative notations have been developed such as Declare, DCR Graphs, DMN, GSM and eCRG. Lately, there has been a rapidly growing interest in hybrid approaches, which combine the strengths of different modelling paradigms.

In this workshop, we are interested in the application and challenges of decision- and rule-based modelling in all phases of the BPM lifecycle (identification, discovery, analysis, redesign, implementation and monitoring).

The purpose of the workshop is therefore:

- To examine the relationship between rules, decisions and processes, including **models; not only to model the process**, but **also to model the rules and decisions**.
- To enhance **rule and decision mining** based on process data (e.g. event logs)
- To examine decision **goals, structures**, and their connection with business **processes**, in order to find a good integration between rule- and decision-based modelling and flow-based modelling.
- To examine **standards** (DMN, CMMN, BPMN) and their integration.
- To study how different process models can be **designed** to fit a decision process, according to various optimization criteria, such as throughput time, use of resources, etc.
- To study the **integration** between different modelling paradigms.
- To show **best practices** in separating process, rule and decision concerns.

Topics of interest

Topics of interest include, but are not limited to:

Declarative and hybrid (process modelling) approaches
- Declarative notations (Declare, DCR Graphs, GSM, eCRG, …)
- Decision & goal notations (DMN, PDM, …)
- Case management notations (CMMN, …)
- Hybrid notations
- Declarative and hybrid modelling methodologies
- Process metrics
- Process maintenance and flexibility
- Human-centered and flexible processes
- Decision rules and processes
- Decision models and structures
- Formal analysis (e.g. expressiveness proofs) of declarative and hybrid notations
- Formal verification (e.g. model-checking and static analysis) of declarative and hybrid models
- Run-time adaptation of declarative and hybrid process models

Decision mining and declarative/hybrid process mining
- Decision mining
- Declarative process mining
- Hybrid process mining
- Data mining for decision and declarative/hybrid process analysis
- Rule mining for decision and declarative/hybrid process analysis

Applications of decision- and rule-modelling in BPM
- Goal-driven processes
- Knowledge-intensive processes
- Business process compliance
- Knowledge workflow management
- Usability and understandability studies
- Case studies
- Tools

Format of the Workshop

The workshop will begin with a keynote, followed by presentations of accepted papers. Full papers have 20 minutes for their presentations and 10 minutes for discussion and Q&A. Short papers have 15 + 5 minutes. At the end of the workshop, there will be a closing panel discussion. Each manuscript will be reviewed by at least three program committee members guaranteeing that only papers presenting high quality work and innovative research in areas relevant to the workshop theme will be accepted.

All accepted papers will appear in the workshop proceedings. They will be distributed electronically on USB sticks. The post-proceedings will be published by Springer in the Lecture Notes in Business Information Processing (LNBIP) series, in a single volume dedicated to the proceedings of all BPM workshops. During a time window after the conference the workshop participants will be granted the free download of the papers.

Submission

Prospective authors are invited to submit papers on any of the topics of the workshop. Papers must be written in English. The following types of submission are accepted:

- full research papers and experience papers (max. 12 pages),
- short papers (position paper, work in progress, software demonstration; max. 6 pages).

Submissions must be prepared according to the Lecture Notes in Computer Science (LNCS) format specified by Springer (see instructions). The title page must contain a short abstract and a list of keywords, preferably using the list of topics given above. Papers should be submitted electronically via EasyChair.

Important Dates
- Workshop papers submission deadline: 11 June, 2018 [extended!]

- Workshop papers notification deadline: 6 July, 2018
- Workshop camera-ready papers deadline: 17 August, 2018
- Workshop: 10 September, 2018

Program Committee

- Bart Baesens, KU Leuven, Belgium
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Please contact the organisers via email at the following address: dehmimop2018@easychair.org