DEClarative, DECISION and Hybrid approaches to processes (DEC2H 2020)

To be held in conjunction with BPM 2020

COVID-19 Notice
Due to the consequences of the COVID-19 pandemic, it has been decided that BPM 2020 will be a fully virtual conference. The same will apply to the DEC2H workshop. Further details will follow as we get nearer to the workshop date.

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 notions 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, ...)

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• 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 published by Springer in the Lecture Notes in Business Information Processing (LNBIP) series. There will be a single LNBIP volume dedicated to the proceedings of all BPM workshops.

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
We are interested in research, work-in-progress, position, case-study and tool papers, either in long (not exceeding 12 pages) or short (not exceeding 6 pages) format. Only papers in English will be considered. Submitted papers must present original research contributions not concurrently submitted elsewhere. Authors are requested to prepare submissions according to the LNBIP format specified by Springer (instructions, LaTeX-template). The title page must contain a short abstract and a list of keywords, preferably using the list of topics given above. Papers must be submitted electronically via the EasyChair portal accessible at this URL: https://easychair.org/conferences/?conf=dec2h2020.

Important Dates
• Abstract submission (optional) deadline: May 22, 2020 June 5, 2020
• Papers submission deadline: May 29, 2020 June 12, 2020
• Notification: June 29, 2020
• Camera-ready deadline: July 13, 2020
• Workshop: September 14, 2020
Organisers
● Claudio Di Cicco, Sapienza University of Rome, Italy
● Jan Vanthienen, KU Leuven, Belgium
● Tijs Slaats, University of Copenhagen, Denmark
● Søren Debois, IT University of Copenhagen, Denmark

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● Krzysztof Kluza, AGH University of Science and Technology, Poland
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● Marco Montali, Free University of Bozen-Bolzano, Italy
● Artem Polyvyanyy, University of Melbourne, Australia
● Hajo A. Reijers, Utrecht University, The Netherlands
● Flavia M. Santoro, Universidade do Estado do Rio de Janeiro, Brazil
● Stefan Schönig, Universität Regensburg, Germany
● Lucinéia H. Thom, Universidade Federal do Rio Grande do Sul, Brazil
● Han van der Aa, Humboldt University of Berlin, Germany
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● Barbara Weber, University of St. Gallen, Switzerland
● Mathias Weske, Hasso Plattner Institute, University of Potsdam, Germany