



DEClarative, DECision and Hybrid approaches to processes (DEC2H 2021)

To be held in conjunction with BPM 2021

Call for Papers

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.

Business processes involve rule-bound decisions. For knowledge-intensive processes, it is common that rules and decisions, as opposed to the process-flow, define the underlying structure and 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. These are highly variable situations, and the processes supporting them are flexible by nature. This variability and flexibility calls for explicit statement of the underlying rules and decisions when describing such processes.

While traditional notations such as BPMN excel at describing “happy paths”, they fall short when modelling flexible and varying rules and decisions, where such models tend to clutter and become imprecise or impractical. To meet this challenge declarative modelling paradigms, which aim to directly capture the business rules or constraints underlying the process have gained momentum. This workshop invites work within these topics, whether on existing formalisms (e.g., DCR, DMN, Declare, CMMN, GSM, eCRG, or DPIL), or new ones. Contributions may include completed work (research, case studies and tools), but also work-in-progress and position papers.

Purpose

The purpose of the workshop is:

- 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 (DCR, Declare, 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.

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. Papers that are not accepted, yet reviewed positively, may still be invited for presentation at the workshop.

Accepted papers will appear in the workshop post-proceedings. These 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.

At least one author of each accepted manuscript is required to register for the workshop and present the paper. Registration is subject to the terms, conditions and procedure of the main BPM 2021 conference to be found on its [website](#).

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 [EasyChair](#): enter the main conference installation (BPM 2021) at easychair.org/conferences/?conf=bpm2021 and select “9th International Workshop on DECLarative, DECision and Hybrid approaches to processes” as the submission track.

Special Issue

Depending on their quality, the authors of selected papers in DEC2H will be invited to submit revised and extended versions of their work for a special issue in the [Journal of Intelligent Information Systems \(JIIS\)](#), edited by Springer.

Important Dates

- Abstract submission deadline (optional): 24 May 2021
- Papers submission deadline: 7 June 2021
- Notification: 2 July 2021
- Camera-ready deadline: 12 July 2021

- Workshop: 6 September 2021

Contact

Contact the organisers on the following e-mail address: DEC2H@di.uniroma1.it

Organisers

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