



11th International Conference on Control,
Decision and Information Technologies

July 15- 18, 2025

Split, Croatia

CALL FOR PAPERS - SPECIAL SESSION

“Computer science and AI techniques serving complex optimization problems”

for CODIT 2025

July 15-18, 2025 ▪ Split, Croatia

Session Co-Chairs:

Dr. Meriem TOUAT, University of Technology Troyes (UTT), France - (email: meriem.touat@utt.fr) PIN 140097

Pr. Haoxun CHEN, University of Technology Troyes (UTT), France – (email: haoxun.chen@utt.fr) PIN 147575

Pr. Belaid BENHAMOU, University of Aix-Marseille, France - (email: belaid.benhamou@univ-amu.fr) PIN 147576

Session description:

This special session deals with the resolution of combinatorial optimization problems. We focus particularly on scheduling, planning and assignment problems across various contexts, including production workshops, healthcare institutions, energy and transportation networks. Indeed, all variations of the objective functions and case studies are considered.

The goal is to present original works on both theoretical and practical studies focusing on the use of techniques primarily derived from computer science and artificial intelligence (AI), such as logic programming implemented through Answer Set Programming (ASP) and the new paradigm of Multi-shot ASP, as well as Constraint Programming (CP) and satisfiability. Moreover, the application of AI techniques, such as machine learning and deep learning, is used to design and enhance classical methods notably metaheuristics at various stages of the process. The speakers will present their work, demonstrating how fields other than operational research can effectively contribute to solving complex combinatorial problems.

The topics of interest include, but are not limited to:

- Scheduling and planning of production workshops.
- Scheduling and planning of healthcare systems.
- Staff scheduling.
- Optimization of transportation networks.
- Optimization of energy networks.
- Answer Set Programming (ASP) / Multi-shot ASP for combinatorial optimization and application for health problems.
- Constraint Programming (CP) / Satisfiability for combinatorial optimization.
- Metaheuristics for optimization problems

- Machine learning, deep learning, reinforcement learning for combinatorial optimization.
- Hybridization of AI techniques with operational research methods to solve optimization problems.

SUBMISSION

Papers must be submitted electronically for peer review through PaperCept by **February 07, 2025:** <http://controls.paperecept.net/conferences/scripts/start.pl>. In PaperCept, click on the **CoDIT 2025 link** “Submit a Contribution to CoDIT 2025” and follow the steps.

IMPORTANT: All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).

DEADLINES

February 07, 2025: deadline for paper submission

April 27, 2025: notification of acceptance/reject

May 17, 2025: deadline for final paper and registration