

## **CALL FOR PAPERS - SPECIAL SESSION**

# "Application of quantum technologies to resolution of optimization problems"

for CODIT 2025
July 15-18, 2025 • Split, Croatia

#### **Session Co-Chairs:**

Prof. Philippe Lacomme, University of Clermont-Auvergne, France, (email : philippe.lacomme@isima.fr)

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### Session description:

The special session focus on the rapidly evolving field where quantum computing meets optimization challenges. Quantum optimization techniques, such as quantum annealing and variational quantum algorithms, promise transformative solutions to problems in fields ranging from logistics and finance to machine learning and materials science. As quantum hardware and hybrid quantum-classical frameworks continue to advance, it is crucial to explore their potential for solving theoretical and real-world optimization problems.

This session aims to bring together researchers, industry practitioners, and thought leaders to discuss innovative approaches, share practical experiences, and chart a course for future research. We invite submissions of original research papers on topics including, but not limited to:

- Quantum annealing and its applications in optimization.
- Variational quantum algorithms for combinatorial and continuous optimization.
- Hybrid quantum-classical optimization strategies.
- Benchmarking and performance evaluation of quantum optimization techniques.
- Applications of quantum optimization in logistics, finance, machine learning, and beyond.
- Theoretical advancements and novel formulations in quantum optimization.
- Challenges in scaling and implementing quantum optimization in practice.

## **SUBMISSION**

Papers must be submitted electronically for peer review through PaperCept by February 07, 2025: <a href="http://controls.papercept.net/conferences/scripts/start.pl">http://controls.papercept.net/conferences/scripts/start.pl</a>. 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