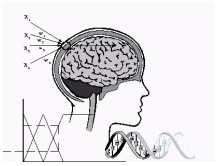
International

Innovation in Knowledge Based and Intelligent Engineering Systems
30th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems
9 - 11 September 2026
Dublin, Ireland



INVITED SESSION SUMMARY

Title of Session:

Global and Constrained Optimization: Algorithms and Applications (7th Edition)

Name, Title and Affiliation of Chair:

Chairs:

Prof. Abdellah Chehri
Department of Mathematics and Computer Science, Royal Military College of Canada, Kingston, Ontario, Canada. Email: **chehri@rmc.ca**

Prof. Sara Séguin
Department of Mathematics and Computer Science, University of Quebec in Chicoutimi, UQAC, Chicoutimi, Québec, Canada. Email: **sara_seguin@uqac.ca**

Prof. Chaibi Hasna
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Prof. Abdeslam Jakimi
University of Moulay Ismail, Morocco**.** Email: **ajakimi@yahoo.fr**

Details of Session (including aim and scope):

Abstract: Optimization techniques are crucial in solving a wide array of problems faced by scientists, mathematicians, and engineers. These techniques have become indispensable in both industry and academia. With the advent of large-scale networks and complex systems, there has been a surge in research activities focused on global optimization. This field has seen numerous advancements in theoretical, algorithmic, and computational domains. The main objective of these research endeavors is to develop numerical methods that ensure global optimization and rapid local convergence.

Objective: The proposed special session aims to convene experts and researchers to share novel theories and applications of global and constrained optimization techniques. The session will explore their implementation in various fields such as data mining, internet/telecommunication, network utility maximization, medical applications, multimedia, computational finance, social network analysis, predictive control (Industry 4.0), and image and signal processing.

Topics of Interest: The session welcomes contributions on, but not limited to, the following topics:

- Advanced numerical methods for global optimization
- Convergence guarantees for local optimization
- Applications in data mining and telecommunication networks
- Optimization in medical applications and computational finance
- Techniques for multimedia and signal processing
- Network utility maximization and social network analysis
- Predictive control methodologies in Industry 4.0
- Global Minimum Point
- Equality Constrained Nonlinear Optimization Problems
- Large-Scale Optimization
- Engineering design optimization
- Distributed Constrained Optimization Method
- Linear Programming Problem
- Binary Quadratic Optimization
- Bayesian Constrained Optimization Approach

- Cooperative and Parallel Optimization
- Game Theory Concept
- Scheduling Algorithms
- Graph-Based Data Mining
- Stochastic Population-Based Optimization Algorithm
- Heuristic Methods

Important deadlines

- Submission deadline: **20th April 2026**
- Acceptance/Reject notification: **20th May 2026**
- Camera-ready: **1st June 2026**
- Author Registration: **1st June 2026**

Submission

Each submission should be at most 10 pages in total including bibliography and well-marked appendices and must follow the Procedia proceedings format.
Submissions for the conference must be made as complete papers (there is no abstract submission stage) submitted as PDF documents through the **EasyChair online submission and review system.**

Publication

Authors who submit and present their work will have their work published and indexed internationally by Elsevier's Procedia Computer Science (**http://www.journals.elsevier.com/procedia-computer-science/**)

Website URL of Call for Papers (if any):

Conference: http://kes2026.kesinternational.org/index.php
Sessions: http://kes2026.kesinternational.org/cmsISdisplay.php

Website URL of Call for Papers (if any):

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