Doctoral School of Information and Biomedical Technologies Polish Academy of Sciences

Domain: IT

SUBJECT: Algorithms for solving large-scale problems of discrete optimization with the use of artificial intelligence

Supervisors, contact: Dmitry Podkopaev, Dmitry.Podkopaev@ibspan.waw.pl

Assistant supervisors, contact:

Place of research: Systems Research Institute PAS

Recruitment & Selection: Interview

Number of positions: 1

Project Description

Discrete optimization has real-life applications in many fields, from medicine and engineering to supply chain and environmental management. The growth of scale and complexity of information systems gives rise to computationally complex problems that cannot be solved by conventional methods, such as MILP (mixed-integer linear programming) or combinatorial optimization algorithms. The goal of the project is to create new algorithms for solving real-life discrete optimization problems of large scale by hybridizing conventional methods with artificial intelligence (AI) techniques, such as metaheuristics and machine learning.

References

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