INTELLIGENT METHODS FOR SOLVING OPTIMIZATION PROBLEMS

Contact details

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Areas of expertise

**Combinatorial Optimization**
- Complexity aspects; Mathematical modelling; Exact approximation, heuristic and hybrid algorithms; Relaxation techniques

**Metaheuristic Algorithms**
- Genetic algorithms; Ant colony optimization; Variable neighborhood search; Memetic algorithms; Hybrid algorithms

Team

Prof. Dr. Petrica Pop Sitar, Prof. Dr. Oliviu Matei, Assoc. Prof. Dr. Corina Pop Sitar, Assoc. Prof. Dr. Andrei Horvat Marc, Assoc. Prof. Dr. Ovidiu Cosma, Assoc. Prof. Dr. Camelia Pintea, Assoc. Prof. Dr. Ioana Zelina, Lecturer Dr. Cosmin Sabo, Lecturer. Dr. Mara Hajdu- Macelu

Representative projects


“Research, development and implementation of organizing the documents”, ANCS, 2010-2013.


Significant results

The most representative publications of the past 5 years:

The offer addressed to the economic environment

Research & development in core areas
Elaboration of new intelligent methods for solving complex optimization problems. Development of new nature inspired algorithms based on group intelligence, extension and improving the existing methods and hybridizing the metaheuristic algorithms with exact methods based on integer programming.

Research & development in applied fields
Proposal of new intelligent methods for solving complex optimization problems such as network design problems, facility and location problems, transportation problems, scheduling problems, etc. Document and information flows, indexing of documents, knowledge organization, real time applications.

Consulting
The research team has the necessary abilities for providing the necessary consulting activities to the beneficiaries for implementing the research results in the proposed field of research. These abilities are confirmed by the previously obtained results.