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## Special Lecture: Evolutionary Algorithms – Theory, Applications, Enhancements

- Title:** Evolutionary Algorithms - Theory, Applications, Enhancements  
**Lecturer:** Alexandru-Ciprian Zavoianu  
**Lecture-ID:** 357.618  
**Meeting point:** Thursday, the 5<sup>th</sup> of March, 15:30 PM, S2 059

The lecture focuses on a special class of nature-inspired stochastic optimization methods known as evolutionary algorithms (EAs). We shall start by providing a placement of EAs within the wider class of heuristic optimization methods and continue with a short overview of EAs and the most important theoretical concepts pertaining to them. Later, we focus on describing specific approaches and enhancements that enable specialized EAs to find very good solutions for complicated multi-objective optimization problems. The last part is dedicated to genetic programming, a particular flavour of evolutionary computation that has recently emerged as a popular white-box system identification (machine learning) approach. The main aim of the lecture is to offer insight into how EAs can be applied to solve various real-life problems.

The course will be held in English. A first meeting is scheduled for Thursday, the 5th of March, 15:30 PM, S2 059.

If there are any questions, please don't hesitate to contact me by e-mail. I am looking forward to welcoming you at the lecture.