

ALGORITMI EVOLUTIVI PENTRU OPTIMIZARE MULTICRITERIALĂ UTILIZAȚI ÎN PROIECTAREA PROCESELOR DE AFACERI

MULTI-OBJECTIVE EVOLUTIONARY ALGORITHMS FOR BUSINESS PROCESSES DESIGN

Lect.dr. Simona DINU

Prof.dr. Gheorghe BORDEA
Universitatea Maritimă Constanța

Abstract: In this paper we focus on the possibility to provide analytical support for optimizing business process design. We use a general framework to represent business processes: a generic model for process design. The proposed framework uses multi-objective optimization algorithms: Multi-Objective Evolutionary Algorithm (MOEA) to find acceptable Pareto solutions as trade-offs. When choosing an analytical approach, it is important to incorporate those aspects within the formal model that determine functionality, reliability, robustness, rigour and consistence. Thus, the following aspects are relevant: the structure of the business process, the resource schedule, the constraints and the customer requirements. All these aspects will be made explicit and will be represented in the model.

Keywords: business processes design, optimization techniques, Multi-Objective Evolutionary Algorithm (MOEA), Pareto optimality.