Title: Advances in Evolutionary Multi-objective Optimization and Applications

Abstract: Multi-objective optimization is widely found in many fields, such as logistics, economics, engineering, or whenever optimal decisions need to be made in the presence of trade-offs. The problem is challenging because it involves the simultaneous optimization of several conflicting objectives in the Pareto optimal sense and requires researchers to address many issues that are unique to MO problems. This talk will first provide an overview of evolutionary computation for multi-objective optimization (EMO). It will then discuss challenges faced in EMO research and present various EMO algorithms for good optimization performance. The talk will also discuss the application of evolutionary computing techniques for solving engineering problems, such as logistics, design optimization and prognostic applications.