Many-objective Optimization using Evolutionary Algorithms

**SPEAKER**  Prof Kalyanmoy DEB  
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**TIME**  2:30 pm - 3:30 pm  
**VENUE**  CS Seminar Room, Y6405, 6th Floor  
Yellow Zone, Academic 1  
City University of Hong Kong  
83 Tat Chee Avenue  
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**ABSTRACT**

Many practical problem solving tasks involve more than one conflicting objectives, such as cost and quality, which must be optimized simultaneously. Evolutionary algorithms have been modified to solve such multi-objective optimization methods since early nineties. However, with their popularity and usefulness in practice, demands have surfaced for solving many-objective optimization problems involving 5+ objectives. In this talk, we shall briefly introduce the growing field of evolutionary multi-objective optimization (EMO) and then focus on several recently proposed many-objective optimization algorithms. Some challenges and research issues related to many-objective optimization will also be highlighted.

**BIOGRAPHY**

Kalyanmoy Deb is Koenig Endowed Chair Professor at Department of Electrical and Computer Engineering in Michigan State University, USA. Prof Deb’s research interests are in evolutionary optimization and their application in optimization, modeling, and machine learning. He was awarded Infosys Prize, TWAS Prize in Engineering Sciences, CajAstur Mamdani Prize, Distinguished Alumni Award from IIT Kharagpur, Edgeworth-Pareto award, Bhatnagar Prize in Engineering Sciences, and Bessel Research award from Germany. He is fellow of IEEE, ASME, and three Indian science and engineering academies. He has published over 401 research papers with Google Scholar citation of about 70,000 with h-index 88. He is in the editorial board on 20 major international journals. More information about his research contribution can be found from http://www.egr.msu.edu/~kdeb.

All are welcome!