Business Distinguished Scholar Seminar Series 2024

APPROXIMATION ALGORITHMS FOR ASSIGNMENT PROBLEMS IN HEALTHCARE OPERATIONS

The generalized assignment problem (GAP) is a well studied optimization problem. We examine a variant of this problem called the dynamic GAP.

We present its formulation, show new hardness results (APX HARD) and give a new 2 approximation algorithm.

We then show instances of this problem that can be used to model care giver assignments in certain critical incidence problems in health care and use the approximation schemes to come up with practical solutions that can be quickly implemented.

28 June 2024 (Friday)
9:30-11:00am (HKT)
English

Zoom Meeting:
https://lingnan.zoom.us/j/96201193531?pwd=Qi8vc2JTdS9oelFjS25Ddlgza05sdz09
Meeting ID: 962 0119 3531 Passcode: 78569306

SPEAKER

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Mahesh is the senior associate dean for Research and the Alumni Chair Professor of Stochastic Optimization at the Sauder School of Business, University of British Columbia. His research interests include applications of optimization and mathematical modelling in the areas of cooperative game theory, stochastic inventory theory, health care operations, queueing and approximation algorithms etc. He has served(serves) as an AE for MS, OR, MATH OF OR, and a senior editor in POM and department editor at OR Letters and MSOM. He has won the informs optimization prize, the William skinner prize , Wagner Prize and UBC awards for research excellence in both the senior and junior categories.

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Due date: 29 June 2024

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