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Book of Abstracts

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Faculdade de Ciências e Tecnologia
Universidade Nova de Lisboa
Caparica Campus

16:40 - An Integrated Model for Warehouse Design and Planning

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Abstract: Warehouse design is a field of interest for both practitioners and researchers that have attracted a lot of research attention in the last years. Nevertheless it remains a complex task with very few general models that capture the existing and often conflicting trade-offs of a warehouse system. Literature surveys show that most research efforts have been devoted to solve limited and well-defined problems rather than integrated ones. This is not surprising since developing an integrated model is more difficult to analyse and treat analytically. In this talk we present and discuss a high-level model that integrates some decisions involved in warehouse design and planning. Our aim is to analyse the value of integrating warehouse decisions showing that additional savings can be achieved.

Keywords: Warehouse design and planning, logistics, integrated model

17:00 - Optimal Supply Chain Planning: Management Decisions and Economical Performance Criteria

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Abstract: Multi-enterprise and Supply chains (SC) have been capturing an increasing interest. This is due namely to the possibility of providing integrated management decisions.Moreover, business uncertainty together with a worldwide strong competition forced enterprises to invest in their SC in order to raise efficient capacity utilization and robust infrastructures decisions. This paper addresses some of these issues and it presents an optimal SC planning model, based on different economical criteria, while accounting for demand to price uncertainties and different partners and markets scores. The SC topology and operability is detailed for a competitiveness demand context. The applicability of the developed formulation is illustrated through the solution of an industrial case.

Keywords: Supply chain, optimal planning, competitiveness, uncertainty, partnership, demand to price elasticity

17:20 - Managing Supply in a Project with Uncertain Starting Date

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Abstract: In a project, availability of required material at right time is crucial to complete the project on time and within the budget. In this work we assume that the required material supply may not be available in enough quantity if the project incurs excessive delays. To manage the interrupted supply managers prefer to have special contracts with the suppliers. Usually suppliers react in two ways towards changes in delivery date, either they may increase the price or provide a limited quantity on the negotiated price. We will discuss both the cases for procurement under uncertain start times of construction project and provide the solution approaches.

Keywords: Supply chain, suppliers, contracts