Application of Decision Support Systems

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Decision Support Systems (DSS) are one of the main researches in business nowadays. DSS are applied in many different areas to predict user behaviour and future parameter developments. Most famous examples can be found in logistics, supply chain support and optimization, and also telecommunication.

Consequently, industry is in need to develop new and more powerful approaches to DSS that is more flexible and applicable to the various application. Some examples of interest are the investment strategy in distribution centres, investment in information technology, investigation of customer satisfaction on fragrance notes, and logistics distribution networks. There are a number of mathematical models that can be used e.g. the Analytic Hierarchy Process (AHP) in association with a Capital Investment Model and transportation models, Mixed Integer Linear Programming (MILP), Multi-Commodity Transportation Model, Delphi, Artificial Neural Network and Maximize Agreement Heuristic etc. The mentioned models can be applied in quantitative as well as qualitative analysis.

The present talk will mainly give an overview on various application of the above named models to industrial DSS.

Short CV:
Athakorn Kengpol is an Associate Professor in the Department of Industrial Engineering, Faculty of Engineering, King Mongkut's University of Technology North Bangkok.
He obtained his PhD. in Manufacturing Engineering and Operations Management from the University of Nottingham, UK. (with a research with Airbus and Rolls Royce Aerospace) and a DSc. in Industrial Engineering and Management from Lappeenranta University of Technology, Finland (research with Nokia Lab). He also finished 2 post doctoral research positions with University of Innsbruck in Austria (in association with Siemens and another one with Lappeenranta University of Technology in Finland (again in association with Nokia Lab). His current research interests are in Decision Support Systems, Decision Science, Concurrent Engineering, and Management Information Systems.