



Session Overview

Methodologies for Process Operations

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Process



- Plant operation and supply chain management have to deal with phenomena on all time scales.
- Tremendous complexity has to be addressed.







- Real-time decision making with multi-criteria objectives: economics, safety, environment etc.
- Various forms of a-priori knowledge:
 - operator experience
 - qualitative models
 - quantitative, data-driven or fundamental models
- Integration is a key
 - across the time scales:
 - from process control to corporate decision making
 - across the supply chain:
 - competition, cooperation and co-opetition
- Supply chain and information structure design to facilitate real-time decision making





... discusses recent developments and future trends of methodologies for process operations in three exemplary areas

Barton and Lee Design of Process Operations Using Hybrid Dynamic Optimization

Bagajewicz

Data Reconciliation and Instrumentation Upgrade. Overview and Challenges

Venkatasubramanian

Abnormal Events Management in Complex Process Plants: Challenges and Opportunities in Intelligent Supervisory Control

