Open Invited Track on "Supply Network Engineering, Dynamics, and Control"
for IFAC WC 2017

Invited track identification code
IFAC World Congress 2017

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<u>**Session Chairs:**</u>
- *Prof. Dr. Dmitry Ivanov, Berlin School of Economics and Law, GERMANY*
- *Prof. Dr. Alexandre Dolgui, Ecole Nationale Supérieure des Mines de Nantes, FRANCE*

Current research in supply chain management and engineering has been increasingly focused on the issues of resilience, dynamics and decision-making under uncertainty. It has been accepted by research community that the effects of various sources of uncertainty should be considered during both supply chain design, planning and execution control. In addition, the issues of behaviour prediction and adaptation become more and more important. The research focus is now shifting to a paradigm that the performance of supply networks is to interrelate to dynamics, adaptability, stability, resilience, and crisis-resistance.

This special Session aims to summarize recent developments in the field of supply chain resilience, dynamics, control and disruption management from a multi-disciplinary operational perspective that includes different quantitative methods and information technology. The aim of this session is to attract high-quality papers detailing the most recent developments in the field of tackling uncertainties, dynamics, and disruptions in the supply chain. We welcome quantitative analysis contributions from different disciplines of operational research, control theory, system dynamics, and artificial intelligence that provide new insights into the theory and practice of supply chain dynamics, control and disruption management.

<u>**Track topics:**</u>
Following the successful tradition of INCOM 2009, 2012, 2015, MIM 2013 and MIM 2016, the session chairs invite scientists, engineers and decision makers from government, industry and academia to contribute theoretical and applied research papers in areas including but not limited to the following topics:

Supply chain design with resilience and business continuity considerations, Trade-off "resilience vs. efficiency" in supply chain optimization, Ripple effect in the supply chain, Quantification of supply chain risk management, Supply chain robustness and stability analysis, Planning supply chain performance under uncertainty, Creating flexibility and adaptability in the supply chain, Mitigating risks and disruptions in supply chain design, planning and scheduling, Disruption prediction and preparedness, Post-disruption supply chain recovery, Supply chain (re)scheduling with closed-loop properties, Supply chain visibility and monitoring process execution in the supply chain, Quantitative analysis techniques for supply chain control , Collaboration in supply chain control and disruption management, Supply Network Design Resilience, Control for Planning and Scheduling; Supply Chain Adaptation, Supply chain coordination, Inventory Control, Optimal Control Theory, Model-Predictive Control, Adaptive Control, Stability Analysis, Agent-based Simulation, Robustness and Resilience; RFID and Event Management Systems.

<u>**Submission**</u>
For author guidelines, please refer to **www.ifac-control.org**. All papers must be submitted electronically using Symposium Manuscript Management System (CMMS). All papers must be prepared in a two-column format in accordance with the IFAC manuscript style. Please use the official IFAC instructions and template to prepare your contribution as full-length draft paper and submit it on line by October 1, 2015. Submission details are available on the symposium website. All submissions must be written in English. All papers that conform to submission guidelines will be peer-reviewed by IPC members. The corresponding author submits the paper online (pdf format) as **an invited session paper**. Submission as an invited paper requires the **invited session code .** Several international journals are associated with the symposium for publication of special issues.

<u>**Important dates**</u>:

October 31, 2016	Deadline for the submission
February 20, 2017	Notification of acceptance/rejection
March 31, 2017	Deadline for the final submission