



# ILS2020

INFORMATION SYSTEMS, LOGISTICS & SUPPLY CHAIN

## **Interconnected Supply Chains in an Era of Innovation**

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### **TOPICS**

- Information and Decision Systems for Supply Chain Management
- E-supply Chain
- Logistics Planning and Management
- Logistics Sectors
- Supply Chain Design
- Supply Chain Management
- Supply Chain and Operations Analytics
- Capabilities in the Supply Chain

### **Information and Decision Systems for Supply Chain Management :**

Although the information and decision systems have been widely implemented for supply chain management worldwide, the recent surge in data collection and novel methods make this an area of exciting developments. This topic includes research on recent advances in information and decision systems for supply chain management ranging from enterprise resource planning to big data analytics.

- Information and communication technology
- Digital technologies for Supply Chain Management
- Decision support systems
- Information system alignment
- Systems integration
- Enterprise resource planning
- Customer and supplier relationships management
- Advanced planning and scheduling concepts
- Artificial Intelligence
- Agent-based approaches
- Cloud computing
- Big Data analytics
- Cyber-security in supply chains

- Blockchain
- Industry 4.0 and IoT
- Supply chain execution

### **E-supply Chain :**

The continuous progress on the Internet technologies and the increased digitalization of production and service systems open up new opportunities for advanced supply chain management paradigms, such as e-supply chain management. This topic is dedicated to research on new challenges, novel developments and practices in the domain of e-supply chains.

- Business-to-Business & Business-to-Customer relationships
- E-marketplace & e-commerce
- Web-enabled manufacturing & e-logistics
- Internet-enabled supply chain practices
- Transparency and traceability
- Knowledge and information management
- Cyber-security

### **Logistics planning and management**

Logistics plays a crucial role in customer satisfaction for both industries and service systems, while it is also an important cost generator. An optimized logistics planning for warehouse management transportation activities and internal logistics, can help companies to enjoy savings and customer, satisfaction. Advanced techniques, new technologies and innovative logistics strategies are being developed to this end and will be discussed within this topic.

- In-house logistics in industry
- Global sourcing & inventories strategies
- Warehouse design and management
- Transportation & distribution systems
- Reverse Logistics
- Logistics 4.0

### **Logistics sectors**

Interconnected supply chains are strongly related to fields of application, and more precisely to sectorial logistics operations. Although general and theoretical frameworks can be defined, it is also important to focus on methodological, practical and inductive-abductive modelling issues related to the main sectors that rely on interconnected supply chains in a changing environment. Main topics are, but not restricted to:

- Urban logistics (Last-mile delivery, Curb pick-up, urban logistics pooling)

- Humanitarian logistics (pre and post crisis logistics management, non-emergency humanitarian logistics planning, crisis prevention and anticipation)
- Healthcare logistics (hospital flow management, emergency logistics)
- Retail logistics (small retailers collaboration, integrated retailing supply chains, multi-channel retailing supply chains)
- Food logistics (Ho.Re.Ca. supply chains, Nano stores logistics management)

## **Supply Chain Design**

Effective and sustainable supply chains are possible with adequate designs. The complexity of today's global and interconnected economies requires significant innovative designs to accommodate the interconnected supply chains. The main topics are, but not restricted to:

- Network design & control
- Supply chain design & integration
- Design for sustainability
- Resilient supply chain design
- Supply chain design for circular economy
- Supply chain design and service integration
- Physical Internet
- Impacts of disasters/ hazards on supply chain
- Supply chain competition and games

## **Supply Chain Management**

In an increasingly complex globalized economy, the performance of companies does not only rely on their capacity to innovate, but also on how their supply chains are managed. Besides operational efficiency on inventories, supply and distribution functions, new issues such as sustainability, circularity, frugality are important to take into consideration for efficient supply chain management. This topic includes all these topics among others related to supply chain management.

- Demand and revenue management
- Supply chain planning and control
- Sales and operations planning
- Inventory planning in supply chain
- Distribution resource planning
- Collaboration and coordination in global supply chains
- Lean supply chain
- Supply Chain Finance
- Sustainable supply chain
- Supply chain risk management
- Closed Loop supply chain management
- Circular economy and frugal supply chains

## **Supply Chain and Operations Analytics**

In the current era of global interconnectivity, the need for efficiency and optimization of supply chain systems has never been more paramount. This topic includes research on recent developments on the use of methods such as simulation, optimization and forecasting for improving supply chain operations.

- Modeling methodologies
- Metrics and Performance Analysis
- Reliability and maintenance
- Data Driven Supply Chain Operations
- Simulation for Supply Chain
- Supply Chain Optimization
- Supply Chain Predictive Analytics
- Operations analysis for Unstructured Data
- Best practices & benchmarking

## **Capabilities in the Supply Chain**

Interconnected supply chains require the best possible deployment of human, physical, technological, and financial resources to deliver products and services that are sustainable and efficient. Under this topic, we want to address issues emphasizing the impact of coordinating the resources of organizations – soft resources as well as other resources, which are require in digitalized supply chains in an era of innovation.

- Business process management
- Management of Enterprise integration
- Enterprise interoperability
- Global Talent & Deployment
- Corporate Social Responsibility