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Guest editorial of "Intelligent logistics and supply chains"

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Information and communication technology (ICT) has been considered as an enabling tool for having more effective and efficient operations in the management of logistics and supply chains for many years. Various information and communication technologies are used to improve performance of the logistics and supply chain network, such as "data mining", "radio frequency identification (RFID)", "machine learning", "smart transportation". While ICT systems are vital components in logistics and supply chains, their successful management rests on intelligent and integrated decision making throughout the logistics network. Intelligent decision technologies are applied to collect and store real-time data and then analyze and interpret the data and information of product, inventory, manufacturing and sales to discover useful knowledge for making better operation and management decisions. Advanced simulation and optimization of planning and scheduling systems are also used for improvement of inventory, production, procurement, and distribution planning. Intelligent agents can communicate with different partners in the supply chain, assist in collecting information, share product information, negotiate prices, and distribute alerts throughout the logistics and supply chains networks. Many artificial intelligence (AI) technologies or systems have been implemented recently or are currently in the stage of implementation.

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We arranged the 3rd International Workshop of Advanced Manufacturing and Automation (IWAMA 2013) on 27–28th October, 2013 at Norwegian University of Science and Technology, Norway. The topics of IWAMA 2013 focused on: (1) intelligent manufacturing technologies; (2) intelligent logistics and supply chains; and (3) intelligent diagnosis and prognosis of wind turbines. After the workshop, we carefully select good papers and ask the authors to modify and extend their papers for further publishing as two special issues in *Advances in Manufacturing*: (1) Intelligent Manufacturing Technologies, and (2) Intelligent Logistics and Supply Chains.

This is the second special issue and it is organized as the following: Chapter 1 presents review and analysis of ontology based interoperability solutions within textile supply chain. Chapter 2 describes the development of intelligent and integrated RFID (II-RFID) system for improving traceability and visibility of manufacturing. A new method of integrating adaptive sliding window and Euclidian distance for filtering RFID unreliable data is presented in Chapter 3. Chapter 4 investigates front-load effects of product development using system dynamics in order to approach lean production development. Chapter 5 describes an industrial case of a Norwegian supplier of ship equipment for realizing automation process in the ETO production situation. Chapter 6 presents incentive regulation of banks on third party logistics enterprises in principal-agent-based inventory financing. Chapter 7 shows a framework for real time production planning and control. Chapter 8 investigates the specific planning environment of an automotive part manufacturer and characterizes this environment based on variables regarding the product, its demand and manufacturing process. Chapter 9 deals with order batching problem, which has a major effect on the efficiency of warehouse operation in logistics in order to

avoid waste of resources, and demonstrates how to solve the problem using genetic algorithms. Chapter 10 presents how to solve the knowledge dynamic problem in software application for process controlling and in Chapter 11 a new method for mapping the product portfolio is introduced.

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