

CALL FOR PAPERS

Computers in Industry

Special Issue on

Radio Frequency Identification (RFID) in Supply Chain Logistics: Research and Applications

Guest Editors:

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Radio Frequency Identification (RFID) is being developed as an application technology in supply chain logistics management. Application of RFID has spread across retailing, automotive, and some service industries. RFID technology uses radio frequencies to eliminate the need for line of sight to the item being scanned and is often touted as an improvement over bar code technology. These advantages result in reduced labor, reduced shrinkage, increased inventory accuracy, and improved identification for customer needs¹. The market for RFID technology in US retail supply chains will grow from \$91.5million in 2003 to \$1.3billion in 2008². The aim of this feature issue is to help researchers and practitioners in understanding the implications, development, implementation and management of RFID through suitable empirical and case studies, and performance measures and metrics (criteria) for evaluating the application potential and challenges of RFID in supply chain and logistics. With the help of articles appearing in this special issue, one should be able better understand the importance of RFID, design and implementation of RFID in supply chain and logistics management. Contributions should always pay attention to the implications of RFID on enterprise information systems, and possibly on the advanced planning systems and collaborative software. In this context the following issues of RFID in supply chain logistics management will be given due consideration in this special issue: (i) as a driver for a better logistics planning and control, (ii) crucial design features for the successful application of RFID in logistics planning and control, (iii) implication for quality control in terms of less scrap and quality costs, (iv) the RFID architecture needed to improve tracking and tracing, and (v) reliability of RFID and the current status (advantages and disadvantages) of application from practitioners' perspective and experiences.

The scope of the special issue will be to present researchers and practitioners with conceptual frameworks, case studies and empirical research for developing, implementing and managing RFID in supply chain and logistics. The prime objective of the special issue is to publish original works that present interesting empirical and case study results arising from research on RFID in supply chain and logistics. Contributed papers may deal with but are not limited to:

- System and product design decisions in RFID-enabled supply chain
- RFID in decision support systems
- Production planning and control with RFID technology
- Technology infrastructure and architecture for RFID systems
- Procurement decisions with RFID
- Supplier or partnership selection in RFID integrated supply chain
- Production management in RFID-enabled supply chain
- Logistics effectiveness with RFID
- E-Commerce and RFID in supply chain and logistics

¹ Szmerekovsky, J.G. and Zhang, J., 2008, "Coordination and adoption of item-level RFID with vendor managed inventory", *International Journal of Production Economics*, Vol. 114, pp. 388-398.

² <http://www.rfidjournal.com/article/articleprint/733/-/1/1>

- Reliability and risk assessment for RFID system deployment
- Evaluation of costs and benefits of RFID in supply chain
- Performance measure and metrics in RFID integrated supply chain
- Economic impact of RFID technology
- Simulation modeling with RFID applications

Submission Guidelines and Important Dates:

Manuscripts should be between 4000-6000 words in length, with all contributions being subjected to a double blind review process. There should be a separate title page giving the names and addresses of the authors. Manuscripts must be sent electronically to one of the guest editors no later than October 31, 2009, and should follow the guidelines of the *Computers in Industry*:

http://www.elsevier.com/wps/find/journaldescription.cws_home/505646/authorinstructions

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