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Autore	Dou Wanchun
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Intelligent business process scheduling for industrial application.

Sommario/riassunto	In the process of transforming modern manufacturing into intelligent manufacturing, more and more manufacturing processes are being deployed digitally on the Internet. As a novel digital industrial infrastructure and new application ecology, Industrial Internet could integrate the novel information and communication technology into various industrial manufacturing processes, through the safe and reliable intelligent interconnection of factors concerning people, machines and things. It aims at significantly improving the digitalization, networking and intelligence of manufacturing processes through the comprehensive interconnection of all manufacturing factors. To deploy and run traditional manufacturing processes on Industrial Internet efficiently, corresponding digital technical means are called for. These technical means play an important role in many potential applications of intelligent manufacturing, e.g. integrating product lifecycle data, strengthening industrial chain cooperation, providing decision-making service information oriented on the production organization process, and providing data support for product optimization and upgrading. This book focuses on the theory, techniques and means for integrating intelligent Industrial Internet applications deployed via mobile edge computing. Concretely, it mainly studies the intelligent theory, techniques and means from a problem-driven and demand-driven perspective, which supports collaborative design, agile manufacturing, remote operation and maintenance on Industrial Internet. These technologies primarily include Industrial Internet-centric intelligent resource scheduling methods, various types of industrial data privacy protection, intelligent version management technologies supporting digital twin applications, various data mining algorithms for intelligent execution of business processes, etc. Given its scope, the book offers a valuable theoretical and technical resource for project managers, technical developers, researchers, educators and students at colleges and universities.