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Titolo	Intelligent Optimal Control for Distributed Industrial Systems / / by Shaoyuan Li, Yi Zheng, Binqiang Xue
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Altri autori (Persone)	ZhengYi XueBinqiang
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Nota di contenuto	Status of Research on Networked Distributed Systems -- Moving horizon state estimation for networked systems with Random Packet Loss -- Design of predictive controller for networked systems -- Moving horizon scheduling for networked systems with communication constraints -- Distributed Predictive Control for local performance index -- Coordinated distributed predictive control system -- Distributed Predictive Control under Communication Constraints -- Application of distributed model predictive control in accelerated cooling process.
Sommario/riassunto	This book focuses on the distributed control and estimation of large-scale networked distributed systems and the approach of distributed model predictive and moving horizon estimation. Both principles and engineering practice have been addressed, with more weight placed on engineering practice. This is achieved by providing an in-depth study on several major topics such as the state estimation and control design for the networked system with considering time-delay, data-drop, etc.,

Distributed MPC design for improving the performance of the overall networked system, which includes several classic strategies for different scenarios, details of the application of the distributed model predictive control to smart grid system and distributed water network. The comprehensive and systematic treatment of theoretical and practical issues in distributed MPC for networked systems is one of the major features of the book, which is particularly suited for readers who are interested to learn practical solutions in distributed estimation and optimization of distributed networked systems. The book benefits researchers, engineers, and graduate students in the fields of chemical engineering, control theory and engineering, electrical and electronic engineering, chemical engineering, and computer engineering, etc. This book is a translation of an original German edition. The translation was done with the help of artificial intelligence (machine translation by the service DeepL.com). A subsequent human revision was done primarily in terms of content, so that the book will read stylistically differently from a conventional translation.