1. Record Nr. UNINA9910254197303321

Autore	Cai Kai
Titolo	Supervisor Localization : A Top-Down Approach to Distributed Control of Discrete-Event Systems / / by Kai Cai, W. Murray Wonham
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-20496-3
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XV, 199 p. 136 illus., 9 illus. in color.)
Collana	Lecture Notes in Control and Information Sciences, , 0170-8643 ; ; 459
Disciplina	629.8
Soggetti	Automatic control System theory Production management Control and Systems Theory Systems Theory, Control Operations Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Introduction -- Localization: Fundamental Results -- Localization: Further Results and Examples -- Localization for Large-Scale Systems -- Case Study: Production Cell -- Localization based on State Tree Structures -- Localization of Timed Discrete-Event Systems -- Conclusions -- Appendix A Nerode Equivalence and Canonical Recognizer -- Appendix B NP-Hardness of Minimal-State Localization -- Appendix C Quasi-Congruence of Nondeterministic Generator.
Sommario/riassunto	This monograph presents a systematic top-down approach to distributed control synthesis of discrete-event systems (DES). The approach is called supervisor localization; its essence is the allocation of external supervisory control action to individual component agents as their internal control strategies. The procedure is: first synthesize a monolithic supervisor, to achieve globally optimal and nonblocking controlled behavior, then decompose the monolithic supervisor into local controllers, one for each agent. The collective behavior of the resulting local controllers is identical to that achieved by the monolithic supervisor. The basic localization theory is first presented in the

	Ramadge–Wonham language-based supervisory control framework, then demonstrated with distributed control examples of multi-robot formations, manufacturing systems, and distributed algorithms. An architectural approach is adopted to apply localization to large-scale DES; this yields a heterarchical localization procedure, which is also demonstrated with benchmark examples. Moreover, a state-based framework, state-tree structures, is exploited for efficient computation of localization. Finally localization is extended to timed DES, which addresses distributed control synthesis with temporal specifications. The authors' TCT software and sourcecode will help the reader to reproduce the results demonstrated in the examples. Academic researchers and graduate students interested in discrete-event and distributed systems and control will find this book an instructive resource. It will also be useful for researchers in manufacturing, supply-chain and logistics and practitioners in related industries.

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Record Nr.	UNINA9911028752903321
Autore	Mesplié Grégory
Titolo	Hand Functional Anatomy and Therapy
Pubbl/distr/stampa	Cham : , : Springer, , 2025 ©2025
ISBN	3-031-92505-X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (326 pages)
Collana	Medicine Series
Disciplina	617.575
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	This book developed from the experience of the ISAMMS team (Institut Sud Aquitain de la Main et du Membre Supérieur), who has been treating hand and wrist pathologies for over 20 years, with the collaboration of experts in their fields.Hands and wrists require specific care from a multidisciplinary staff.