1. Record Nr. UNINA9910768466803321

Titolo	Application of Petri Nets to Communication Networks [[electronic resource]] : Advances in Petri Nets / / edited by Jonathan Billington, Michel Diaz, Grzegorz Rozenberg
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1999
ISBN	3-540-48911-8
Edizione	[1st ed. 1999.]
Descrizione fisica	1 online resource (X, 314 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1605
Disciplina	004/.36
Soggetti	Computer communication systems Application software Software engineering Information storage and retrieval Electrical engineering Computer Communication Networks Information Systems Applications (incl. Internet) Software Engineering Information Storage and Retrieval Communications Engineering, Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Using high-level petri nets in the field of intelligent networks -- The incremental modelling of the Z39.50 protocol with object petri nets -- The modelling and analysis of IEEE 802.6's configuration control protocol with coloured petri nets -- Colored petri nets based modeling and simulation of the static and dynamic allocation policies of the asynchronous bandwidth in the fieldbus protocol -- Parameter region for the proper operation of the IEEE 802.2 LLC type 3 protocol: A petri net approach -- Timed petri net models of ATM LANs -- Performance evaluation of polling-based communication systems using SPNs -- Structural decomposition and serial solution of SPN models of the ATM GAUSS switch -- COSTPN for Modeling and control of telecommunication systems -- Stochastic colored petri net models for

rainbow optical networks.

Sommario/riassunto

Petri nets offer a mathematically defined technique for the specification, design, analysis, verification and performance evaluation of concurrent distributed systems. They offer not only precise semantics and a theoretical foundation, but also a graphical form that facilitates the understanding of both information and control flow within the same formalism. As an intuitively appealing graphical form of presentation, Petri nets are the model of choice in various applications. Communications networks, ranging from traditional telecommunication systems to advanced Internet-based information services, are inherently distributed and comprise systems with concurrently operating components. This volume presents a selection of the latest advances in the use of Petri nets for the modeling, analysis and management of communication networks and systems in the broadest sense of these terms.