1. Record Nr. UNINA9910760267403321

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Titolo	Quality-of-Service Aware Design and Management of Embedded Mixed-Criticality Systems [[electronic resource] /] / by Behnaz Ranjbar, Alireza Ejlali, Akash Kumar
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-38960-3
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (205 pages)
Altri autori (Persone)	EjlaliAlireza KumarAkash
Disciplina	006.22
Soggetti	Electronic circuits Embedded computer systems Electronic circuit design Electronic Circuits and Systems Embedded Systems Electronics Design and Verification
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Preliminaries and Literature Reviews -- Bounding Time in Mixed-Criticality Systems -- Safety- and Task-Drop-Aware Mixed-Criticality Task Scheduling -- Learning-Based Drop-Aware Mixed-Criticality Task Scheduling -- Fault-Tolerance and Power-Aware Multi-Core Mixed-Criticality System Design -- QoS- and Power-Aware Run-Time Scheduler for Multi-Core Mixed-Criticality Systems -- Conclusion.
Sommario/riassunto	This book addresses the challenges associated with efficient Mixed-Criticality (MC) system design. We focus on application analysis through execution time analysis and task scheduling analysis in order to execute more low-criticality tasks in the system, i.e., improving the Quality-of-Service (QoS), while guaranteeing the correct execution of high-criticality tasks. Further, this book addresses the challenge of enhancing QoS using parallelism in multi-processor hardware platforms. Provides an overview of the state-of-the-art in Mixed-Criticality research, related to Quality-of-Service improvement; Describes a novel theoretical approach to obtaining Worst-Case

Execution Times (WCETs); Utilizes machine learning models and objective optimization techniques to improve the resource utilization and QoS. .