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Autore	Zacher Serge
Titolo	Closed Loop Control and Management : Introduction to Feedback Control Theory with Data Stream Managers // Serge Zacher
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2022] ©2022
ISBN	9783031134838 9783031134821
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (396 pages)
Disciplina	629.8
Soggetti	Automatic control Automation Control theory Control automàtic Teoria de control Teoria de sistemes Automatització Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Classic closed loop control from Heron till now:- Basics of the closed loop management -- Engineering of closed loops -- Mathematical Backgrounds.
Sommario/riassunto	The block diagrams as engineering means for closed loop control, which have been established by classic control theory for decades, are replaced in the above mentioned book by networks, the signals are replaced by data. It corresponds to the „Industry 4.0“ and to the structure of today’s automatic control systems. Thereby a classic closed loop is treated not isolated from other elements of nowadays automation like bus communication and process logical control, and is completed in proposed book with new control elements, so called data stream managers (DSM). The proposed book treats the control theory systematically like it is done in classical books considering the new

concept of data management. The theory is accompanied in the book with examples, exercises with solutions and MATLAB®-simulations. About the Author: Dr. Serge Zacher is retired university professor of automation and author of many patents, papers and books, including „Regelungstechnik für Ingenieure“ (with M. Reuter), which counts to standard works for German universities of applied sciences. His further books in the Springer-Vieweg are „Automatisierungstechnik kompakt“, „Übungsbuch Regelungstechnik“, „Drei-Bode-Plots-Verfahren“ and “Regelungstechnik mit Data Stream Management”. He is actually a lecturer of automation at the universities of applied sciences Darmstadt and Stuttgart.

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