1. Record Nr. UNINA9910483478503321

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Titolo	Parallel manipulators of robots : theory and applications / / Korganbay Sagnayevich Sholanov
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-56073-2
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XI, 164 p. 97 illus., 37 illus. in color.)
Collana	Mechanisms and Machine Science, , 2211-0984 ; ; 92
Disciplina	629.892
Soggetti	Manipulators (Mechanism) - Automatic control
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Synthesis of architecture of robot one- and multi-loop manipulators. Analysis of the design of robot parallel manipulators -- Kinematics and dynamics of one-loop and multi-loop Parallel Manipulators -- Use of one-loop and multi-loop robot manipulators.
Sommario/riassunto	This book describes the theoretical framework of parallel manipulators and presents examples of their application. The theoretical part begins with the theory of parallel manipulator synthesis. Working on this basis, various topology designs of one-loop and multiloop parallel manipulators are then obtained. The next section describes the zero parameters method for the analysis of mechanism (manipulator) structure with closed kinematic circuits, and includes examples of its application, highlighting its advantages compared to traditional methods. The book then presents the redundant parameters method for determining the position of special parallel manipulator links, and discusses its application in solving the direct problem of link position for multiloop manipulators. It also addresses one-loop and multiloop manipulators, and includes a solution for the direct and inverse link position problems of kinematics. In closing, the book presents a range of potential applications for parallel manipulator. These examples are intended to promote the development and implementation of new engineering solutions, e.g. in seismic protection systems, renewable energy and other areas. The book includes a wealth of material that can be used for teaching undergraduate, graduate and PhD students

majoring in robotics, automation and related fields, and can also be used by researchers to solve problems in connection with introducing robotics technologies.