1. Record Nr. UNINA9910437913403321 Autore Lenarcic Jadran Titolo Robot Mechanisms / / by Jadran Lenarcic, Tadej Bajd, Michael M. Staniši Dordrecht:,: Springer Netherlands:,: Imprint: Springer,, 2013 Pubbl/distr/stampa 94-007-4522-2 **ISBN** Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (341 p.) Collana Intelligent Systems, Control and Automation: Science and Engineering, 2213-8986;;60 629.892 Disciplina Soggetti Robotics Automation Applied mathematics **Engineering mathematics** Mechanics Robotics and Automation Applications of Mathematics Classical Mechanics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Preface -- Kinematics of Rigid Bodies -- Mechanisms -- Serial Nota di contenuto Mechanisms -- Evaluation of Mechanisms -- Singular Planes and Dexterous Robot Mechanisms.- Redundant Mechanisms.- Parallel Mechanisms -- Robot Contact -- Robot Grasp -- Kinematic Model of the Human Hand.-Index. Sommario/riassunto This book provides a comprehensive introduction to the area of robot mechanisms, primarily considering industrial manipulators and humanoid arms. The book is intended for both teaching and self-study. Emphasis is given to the fundamentals of kinematic analysis and the design of robot mechanisms. The coverage of topics is untypical. The focus is on robot kinematics. The book creates a balance between theoretical and practical aspects in the development and application of

robot mechanisms, and includes the latest achievements and trends in

robot science and technology.