1. Record Nr. UNINA9910458103903321 Autore Rong Yiming <1958-> Titolo Advanced computer-aided fixture design [[electronic resource] /] / Yiming (Kevin) Rong, Samuel H. Huang, Zhikun Hou Amsterdam; Boston, Elsevier, 2005 Pubbl/distr/stampa 1-281-02004-4 **ISBN** 9786611020040 1-4237-2246-9 0-08-048827-7 Descrizione fisica 1 online resource (425 p.) Altri autori (Persone) HuangSamuel H HouZhikun Disciplina 621.9/92 Jigs and fixtures - Computer-aided design Soggetti Machine-tools - Computer-aided design Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia Front Cover; Advanced Computer-aided Fixture Design; Copyright Nota di contenuto Page: Preface: Author Biographies: TABLE OF CONTENTS: Chapter 1. Introduction; References; Chapter 2. Computerized Manufacturing Setup Planning; 2.1 An Overview; 2.2 Tolerance Analysis in Setup Planning; 2.3 System Development; 2.4 Advanced Topics; References; Chapter 3. Computer-aided Fixture Design; 3.1 An Overview of Computer-aided Fixture Design; 3.2 Automated Dedicated Fixture Design: Basic Design; 3.3 Automated Dedicated Fixture Design: Detail Design; 3.4 Variation Fixture Design for Part Family 3.5 Case-based Reasoning Fixture Design3.6 Sensor based Fixture Design and Verification; References; Chapter 4. Computer-aided Fixture Design Verification; 4.1 Framework and Modeling; 4.2 Fixturing Tolerance Analysis; 4.3 Fixturing Stability Analysis; References; Chapter

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Sommario/riassunto

Fixtures--the component or assembly that holds a part undergoing machining--must be designed to fit the shape of that part and the type of machining being done. This book discusses the fundamentals of Computer-Aided Fixture Design (CAFD) techniques and covers fixture planning, fixture design (both modular and dedicated fixtures), fixture design verifications, and the overall integration with CAD/CAM. The book shows how CAFD may lead to a significant reduction of product and process development time and production cost, and how CAFD can increase quality assurance through simulation and scienc