

1. Record Nr.	UNINA9910898593903321
Autore	Ivanov Vitalii (Manufacturing engineer)
Titolo	Fundamentals of Manufacturing Engineering Using Digital Visualization // by Vitalii Ivanov, Artem Evtuhov, Ivan Dehtiarov, Justyna Trojanowska
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	9783031743603 3031743601
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (115 pages)
Collana	Springer Tracts in Mechanical Engineering, , 2195-9870
Altri autori (Persone)	EvtuhovArtem DehtiarovIvan TrojanowskaJustyna
Disciplina	620.0042
Soggetti	Engineering design Computer-aided engineering Industrial engineering Automation Engineering Design Computer-Aided Engineering (CAD, CAE) and Design Industrial Automation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Preface About Authors Acknowledgment -- Introduction to Manufacturing Engineering -- Overview of Manufacturing -- Locating -- Product Quality -- Technological Processes in Machining -- Machining Methods.
Sommario/riassunto	This open access book offers a guide to core principles and practices of manufacturing engineering. It covers the design of, together with technological and measurement issues for, technical systems. Locating charts and setup schemes describing different machining processes are included. Concepts of product quality, with a focus on accuracy indicators, machining accuracy, roughness, and the impact of surface quality on exploitation properties are also explained. Furthermore, key machining methods, including turning, milling, hole machining,

grinding, and gear machining, are analyzed in depth, covering their principles, applications, and techniques. The book is enriched by QR codes, linking to a mobile application presenting additional information about the content, for an interactive and extended learning experience. It also uses illustrations visualized with digital tools to promote a better understanding of the concepts. Overall, this book provides students, educators, and practitioners in manufacturing engineering with a comprehensive, accessible and interactive resource .
