1. Record Nr. UNINA9911049224003321

Autore	Mittelstedt Christian
Titolo	Engineering Mechanics 1: Statics / / by Christian Mittelstedt
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2026
ISBN	3-662-71852-9
Edizione	[1st ed. 2026.]
Descrizione fisica	1 online resource (269 pages)
Collana	Engineering Series
Disciplina	620.1
Soggetti	Mechanics, Applied Mechanics Continuum mechanics Statics Engineering Mechanics Classical Mechanics Continuum Mechanics Mechanical Statics and Structures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Fundamentals -- Force Systems and Equilibrium -- Centre of Gravity -- Support Reactions -- Trusses -- Beams -- Work -- Friction -- Index.
Sommario/riassunto	This book follows the classical structure of Engineering Mechanics as taught at universities in Germany. It focuses on statics, i.e., the study of bodies at rest under the influence of forces. The aim of the book is to provide students with a clear and illustrative introduction to statics and to enable them to independently formulate and solve engineering problems. To this end, the book offers a variety of examples. The book is intended for students of mechanical engineering, civil engineering, mechanics, and all other disciplines in which statics plays a role. Contents: Fundamentals - Force Systems and Equilibrium - Centre of Gravity - Support Reactions - Trusses - Beams - Work - Friction The Author: Univ.-Prof. Dr.-Ing. habil. Christian Mittelstedt studied civil engineering at the University of Wuppertal, where he graduated in 1999 with a degree in civil engineering (Dipl.- Ing.). In 2005, he earned his doctorate (Dr.-Ing.) at the University of Siegen with a dissertation on

stress concentration problems in composite laminates. Starting in 2006, he worked in the German aerospace industry as a research engineer and, from 2011, as a technical leader and expert in the field of structural analysis. He completed his habilitation in 2012 with a thesis on the stability of thin-walled fiber-reinforced lightweight structures. He is the author and co-author of more than 200 scientific publications in international journals, conference proceedings, and officially recognized engineering handbooks. He has written numerous textbooks on applied mechanics. Since August 2016, he has headed the institute of "Lightweight Engineering and Structural Mechanics" at the Faculty of Mechanical Engineering at the Technical University of Darmstadt.