1. Record Nr. UNINA9910463829503321

Autore	Luhmann Thomas
Titolo	Close-range photogrammetry and 3D imaging / / edited by Thomas Luhmann [and three others]
Pubbl/distr/stampa	Berlin : , : Walter de Gruyter GmbH & Co. KG, , [2014] ©2014
ISBN	3-11-030278-0
Edizione	[Second edition.]
Descrizione fisica	1 online resource (708 p.)
Collana	De Gruyter Textbook De Gruyter textbook
Classificazione	RB 10112
Altri autori (Persone)	LuhmannT (Thomas)
Disciplina	778.3/5
Soggetti	Photogrammetry Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"The first edition of 'Close Range Photogrammetry' was published in 2006 as a translated and extended version of the original German book 'Nahbereichsphotogrammetrie'"--Preface.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Preface -- Content -- 1 Introduction -- 2 Mathematical fundamentals -- 3 Imaging technology -- 4 Analytical methods -- 5 Digital image processing -- 6 Measuring tasks and systems -- 7 Measurement design and quality -- 8 Example applications -- 9 Literature -- Abbreviations -- Image sources -- Index -- Backmatter
Sommario/riassunto	This is the second edition of the established guide to close-range photogrammetry which uses accurate imaging techniques to analyse the three-dimensional shape of a wide range of manufactured and natural objects. After more than 20 years of use, close-range photogrammetry, now for the most part entirely digital, has become an accepted, powerful and readily available technique for engineers, scientists and others who wish to utilise images to make accurate 3D measurements of complex objects. Here they will find the photogrammetric fundamentals, details of system hardware and software, and broad range of real-world applications in order to achieve this. Following the introduction, the book provides fundamental mathematics covering subjects such as image orientation, digital imaging processing and 3D reconstruction methods, as well as a discussion of imaging technology, including targeting and illumination,

and its implementation in hardware and software. It concludes with an overview of photogrammetric solutions for typical applications in engineering, manufacturing, medical science, architecture, archaeology and other fields.