1. Record Nr. UNINA9910437570803321

Titolo	Shape perception in human and computer vision : an interdisciplinary perspective / / Sven J. Dickinson, Zygmunt Pizlo, editors
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	1-4471-5195-X
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (xvii, 502 pages) : illustrations (some color)
Collana	Advances in computer vision and pattern recognition, , 2191-6586
Altri autori (Persone)	DickinsonSven J PizloZygmunt
Disciplina	006.37
Soggetti	Form perception Computer vision Pattern recognition systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"ISSN: 2191-6586."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The Role of Mid-Level Shape Priors in Perceptual Grouping and Image Abstraction -- Symmetry is the Sine Qua Non of Shape -- Flux Graphs for 2D Shape Analysis -- An Integrated Bayesian Approach to Shape Representation and Perceptual Organization -- Perceptual Organization of Shape -- Two-Dimensional Shape as a Mid-Level Vision Gestalt -- Shape Priors for Image Segmentation -- Observations on Shape from Shading in Humans -- Deformations and Lighting -- The Shape of Space -- The Visual Hierarchy Mirage -- Natural Selection and Shape Perception -- Shape as an Emergent Property -- Representing 3D Shape and Location -- Joint Registration and Shape Analysis of Curves and Surfaces -- The Statistics of Shape, and Reflectance, and Lighting in Real-World Scenes -- Structure vs. Appearance and 3D vs. 2D -- Visual Shape Perception and Representation -- 3D Face Reconstruction from Single Two-Tone and Color Images -- Perception and Action without Veridical Metric Reconstruction -- A Stochastic Grammar for Natural Shapes -- Hard-Wired and Plastic Mechanisms in 3D Shape Perception -- Holistic Shape Recognition -- Shape Processing as Inherently Three-Dimensional -- The Role of Shape in Visual Recognition -- Human Object Recognition -- Shape-Based Object Discovery in Images -- Schema-Driven Influences in Recovering 3D Shape from Motion in Human and Computer Vision -- Detecting,

	Representing and Attending to Visual Shape -- Toward a Dynamical View of Object Perception -- Modeling Shapes with Higher-Order Graphs: Methodology and Applications -- Multisensory Shape Processing -- Shape-Based Instance Detection under Arbitrary Viewpoint.
Sommario/riassunto	Shape perception has always been important in vision research, yet it is now attracting more interest than ever before, fueling the need for an interdisciplinary approach that bridges the fields of computer vision and human vision. This comprehensive and authoritative text/reference presents a unique, multidisciplinary perspective on Shape Perception in Human and Computer Vision. Rather than focusing purely on the state of the art, the book provides viewpoints from world-class researchers reflecting broadly on the issues that have shaped the field. Drawing upon many years of experience, each contributor discusses the trends followed and the progress made, in addition to identifying the major challenges that still lie ahead. Topics and features: Presents 33 contributions from an international selection of pre-eminent researchers from both the computer vision and human vision communities Examines each topic from a range of viewpoints, rather than promoting a specific paradigm Discusses topics on contours, shape hierarchies, shape grammars, shape priors, and 3D shape inference Reviews issues relating to surfaces, invariants, parts, multiple views, learning, simplicity, shape constancy and shape illusions Addresses concepts from the historically separate disciplines of computer vision and human vision using the same “language” and methods This interdisciplinary collection is essential reading for students and researchers seeking to understand the broader landscape of the problem in order to build their expertise on a firm foundation. Dr. Sven Dickinson is Professor and Chair of the Department of Computer Science at the University of Toronto, Canada. Dr. Zygmunt Pizlo is Professor of Mathematical/Computational Cognitive Science in the Department of Psychological Sciences at Purdue University, USA.

2. Record Nr. UNINA9910557625703321

Autore	Minnaert Ben
Titolo	Modelling of Wireless Power Transfer
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 online resource (148 p.)
Soggetti	History of engineering and technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Wireless power transfer allows the transfer of energy from a transmitter to a receiver across an air gap, without any electrical connections. Technically, any device that needs power can become an application for wireless power transmission. The current list of applications is therefore very diverse, from low-power portable electronics and household devices to high-power industrial automation and electric vehicles. With the rise of IoT sensor networks and Industry 4.0, the presence of wireless energy transfer will only increase. In order to improve the current state of the art, models are being developed and tested experimentally. Such models allow simulating, quantifying, predicting, or visualizing certain aspects of the power transfer from transmitter(s) to receiver(s). Moreover, they often result in a better understanding of the fundamentals of the wireless link. This book presents a wonderful collection of peer-reviewed papers that focus on the modelling of wireless power transmission. It covers both inductive and capacitive wireless coupling and includes work on multiple transmitters and/or receivers.