

# Contents

<b>1</b>	<b>Introduction . . . . .</b>	<b>1</b>
	Reinhard Koch, Nick Pears, and Yonghuai Liu	
 <b>Part I 3D Imaging and Shape Representation</b>		
<b>2</b>	<b>Passive 3D Imaging . . . . .</b>	<b>35</b>
	Stephen Se and Nick Pears	
<b>3</b>	<b>Active 3D Imaging Systems . . . . .</b>	<b>95</b>
	Marc-Antoine Drouin and Jean-Angelo Beraldin	
<b>4</b>	<b>Representing, Storing and Visualizing 3D Data . . . . .</b>	<b>139</b>
	William A.P. Smith	
 <b>Part II 3D Shape Analysis and Processing</b>		
<b>5</b>	<b>Feature-Based Methods in 3D Shape Analysis . . . . .</b>	<b>185</b>
	Alexander M. Bronstein, Michael M. Bronstein, and Maks Ovsjanikov	
<b>6</b>	<b>3D Shape Registration . . . . .</b>	<b>221</b>
	Umberto Castellani and Adrien Bartoli	
<b>7</b>	<b>3D Shape Matching for Retrieval and Recognition . . . . .</b>	<b>265</b>
	Benjamin Bustos and Ivan Sipiran	
 <b>Part III 3D Imaging Applications</b>		
<b>8</b>	<b>3D Face Recognition . . . . .</b>	<b>311</b>
	Ajmal Mian and Nick Pears	
<b>9</b>	<b>3D Digital Elevation Model Generation . . . . .</b>	<b>367</b>
	Hong Wei and Marc Bartels	

**10 High-Resolution Three-Dimensional Remote Sensing for Forest Measurement . . . . . 417**  
Hans-Erik Andersen

**11 3D Medical Imaging . . . . . 445**  
Philip G. Batchelor, P.J. “Eddie” Edwards, and Andrew P. King

**Index . . . . . 497**

3D Imaging, Analysis and Applications

Pears, N.; Liu, Y.; Bunting, P. (Eds.)

2012, XVI, 500 p., Hardcover

ISBN: 978-1-4471-4062-7