

# Contents

<b>1</b>	<b>Challenges in Additive Manufacturing: Influence of Process Parameters on Induced Physical Properties of Printed Parts</b> .....	<b>1</b>
	N. Dhoonooah, K. Moussaoui, F. Monies, W. Rubio, and R. Zitoune	
<b>2</b>	<b>Additive Manufacturing Incorporated Carbon Nanotubes (CNTs); Advances in Biomedical Domain</b> .....	<b>33</b>
	Sandeep Devgan, Amit Mahajan, and Vinod Mahajan	
<b>3</b>	<b>Formation, Testing, and Deposition of Bioactive Material Using Thermal Spray Additive Manufacturing Technique</b> .....	<b>45</b>
	Talwinder Singh and Davinder Singh	
<b>4</b>	<b>Controlled Oxide Deposition Improves Mechanical and Biomedical Applications of Titanium Alloy</b> .....	<b>59</b>
	Anil Kumar, Sunil Sinhmar, Suresh Kumar, and Rishabh Sharma	
<b>5</b>	<b>Instrumentation and Monitoring of Additive Manufacturing Processes for the Biomedical Applications</b> .....	<b>73</b>
	L. de Peindray d'Ambelle, K. Moussaoui, and C. Mabru	
<b>6</b>	<b>A Concise Study on Tribological Properties of Additive Manufactured Biomaterials</b> .....	<b>107</b>
	Jasjeevan Singh, Amit Mahajan, Atul Agnihotri, and Ruchi Handa	
<b>7</b>	<b>Role and Scope of OEE to Improve Additive Manufacturing Processes in Biomedical Industries</b> .....	<b>115</b>
	Sandeep Singh, Davinder Singh, Mahesh Gupta, Bhupinder Singh Chauhan, and Jasjeevan Singh	
<b>8</b>	<b>Corrosion Performance of Additively Manufactured Metallic Biomaterials: A Review</b> .....	<b>127</b>
	Davinder Singh, Talwinder Singh, and Sandeep Singh	



<b>9</b>	<b>Emerging Functionally Graded Materials for Bio-implant Applications—Design and Manufacturing .....</b>	<b>137</b>
	Rakesh Kumar and Anupam Agrawal	
<b>10</b>	<b>Biomechanical Evaluation of Load Transfer and Stability in a Corrugated Hip Stem: A Comparative Analysis .....</b>	<b>147</b>
	Vivek Gupta, Gurpreet Singh, and Arnab Chanda	
<b>11</b>	<b>Applications of 3D Printing in Medical, Engineering, Agricultural, and Other Sectors .....</b>	<b>159</b>
	Shaik Himam Saheb	