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Nota di contenuto	Advanced Manufacturing Technology for Medical Applications; Contents; Contributors; 1 Rapid Prototyping for Medical Applications; 1.1 Overview; 1.2 Workshop on Medical Applications for Reverse Engineering and Rapid Prototyping; 1.3 Purpose of This Chapter (Overview); 1.4 Background on Rapid Prototyping; 1.5 Stereolithography and Other Resin-type Systems; 1.6 Fused Deposition Modelling and Selective Laser Sintering; 1.7 Droplet/Binder Systems; 1.8 Related Technology: Microsystems and Direct Metal Systems; 1.9 File Preparation; 1.10 Relationship with Other Technologies 1.11 Disadvantages with RP for Medical Applications1.12 Summary; Bibliography; 2 Role of Rapid Digital Manufacture in Planning and Implementation of Complex Medical Treatments; 2.1 Introduction; 2.2 Primer on Medical Imaging; 2.3 Surgical Planning; 2.3.1 Virtual planning; 2.3.2 Implementation of the plan; 2.4 RDM in Medicine; 2.4.1 RP-generated anatomical models; 2.4.2 Custom treatment devices with

ADM; 2.5 The Future; 2.6 Conclusion; References; 3 Biomodelling; 3.1 Introduction; 3.2 Surgical Applications of Real Virtuality; 3.2.1 Cranio-maxillofacial biomodelling
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Sommario/riassunto

Advanced manufacturing technologies (AMTs) combine novel manufacturing techniques and machines with the application of information technology, microelectronics and new organizational practices within the manufacturing sector. They include "hard" technologies such as rapid prototyping, and "soft" technologies such as scanned point cloud data manipulation. AMTs contribute significantly to medical and biomedical engineering. The number of applications is rapidly increasing, with many important new products now under development. Advanced Manufacturing Technology for Medical Applications<