

1. Record Nr.	UNINA9910674041103321
Titolo	Additive manufacturing technologies and applications / / edited by Salvatore Brischetto, Paolo Maggiore, Carlo Giovanni Ferro
Pubbl/distr/stampa	Basel, Switzerland : , : MDPI - Multidisciplinary Digital Publishing Institute, , 2017
Descrizione fisica	1 online resource (188 pages) : illustrations
Disciplina	621.988
Soggetti	Additive manufacturing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	About the Special Issue Editors -- Salvatore Brischetto, Paolo Maggiore and Carlo Giovanni Ferro Special Issue on "Additive Manufacturing Technologies and Applications", Reprinted from: Technologies 2017, 5 (3), 58; doi:10.3390/technologies5030058 -- Emily E. Petersen, Romain W. Kidd and Joshua M. Pearce Impact of DIY Home Manufacturing with 3D Printing on the Toy and Game Market, Reprinted from: Technologies 2017, 5(3), 45; doi: 10.3390/technologies. 5030045 -- John J. Laureto and Joshua M. Pearce Open Source Multi-Head 3D Printer for Polymer-Metal Composite Component Manufacturing Reprinted from: Technologies 2017, 5(2), 36; doi: 10.3390/technologies5020036 -- Carlo Giovanni Ferro, Sara Varetti, Fabio Vitti, Paolo Maggiore, Mariangela Lombardi, Sara Biamino, Diego Manfredi and Flaviana Calignano A Robust Multifunctional Sandwich Panel Design with Trabecular Structures by the Use of Additive Manufacturing Technology for a New De-Icing System Reprinted from: Technologies 2017, 5(2), 35; doi: 10.3390/technologies5020035 -- Federico Mazzucato, Simona Tusacciu, Manuel Lai, Sara Biamino, Mariangela Lombardi and Anna Valente Monitoring Approach to Evaluate the Performances of a New Deposition Nozzle Solution for DED Systems, Reprinted from: Technologies 2017, 5(2), 29; doi: 10.3390 /tech -- Pratik Vora, Rafael Martinez, Neil Hopkinson, Iain Todd and Kamran Mumtaz Customised Alloy Blends for In-Situ A1339 Alloy Formation Using Anchorless Selective Laser Melting Reprinted from:

Technologies 2017, 5(2), 24; doi: 10.3390/technologies.2002 -- Michael D. M. Kutzer and Levi D. DeVries Testbed for Multilayer Conformal Additive Manufacturing, Reprinted from: Technologies 2017, 5(2), 25; doi: 10.3390/technologies5020025 -- Salvatore Brischetto, Carlo Giovanni Ferro, Paolo Maggiore and Roberto Torre Compression Tests of ABS Specimens for UAV Components Produced via the FDM Technique Reprinted from: Technologies 2017, 5(2), 20; doi: 10.3390/technologies5020020 -- Andrei Ilie, Haider Ali and Kamran Mumtaz In-Built Customised Mechanical Failure of 316L Components Fabricated Using Selective Laser Melting Reprinted from: Technologies 2017, 5(1), 9; doi: 10.3390/technologies501000 -- Konda Gokuldoss Prashanth, Sergio Scudino, Riddhi P. Chatterjee, Omar O. Salman and Jurgen Eckert Additive Manufacturing: Reproducibility of Metallic Parts Reprinted from: Technologies 2017, 5(1), 8; doi: 10.3390/technologies5010008 -- Emily E. Petersen and Joshua Pearce Emergence of Home Manufacturing in the Developed World: Return on Investment for Open-Source 3-D Printers, Reprinted from: Technologies 2017, 5(1), 7; doi: 10.3390/technologies5010007 -- Albert E. Patterson, Sherri L. Messimer and Phillip A. Farrington Overhanging Features and the SLM/DMLS Residual Stresses Problem: Review and Research Need Reprinted from: Technologies 2017, 5(2), 15; doi: 10.3390/technologies5.02.2001.

#### Sommario/riassunto

The present Special Issue proposes articles in the area of Additive Manufacturing with particular attention to the different employed technologies and the several possible applications. The main investigated technologies are the Selective Laser Sintering (SLS) and the Fused Deposition Modelling (FDM). These methodologies, combined with the Computer Aided Design (CAD), provide important advantages. Numerical, analytical and experimental knowledge and models are proposed to exploit the potential advantages given by 3D printing for the production of modern systems and structures in aerospace, mechanical, civil and biomedical engineering fields. The 11 selected papers propose different additive manufacturing methodologies and related applications and studies.