Design for Additive Manufacturing: Trends, opportunities, considerations, and constraints - DTU Orbit (09/11/2017)

Design for Additive Manufacturing: Trends, opportunities, considerations, and constraints

The past few decades have seen substantial growth in Additive Manufacturing (AM) technologies. However, this growth has mainly been process-driven. The evolution of engineering design to take advantage of the possibilities afforded by AM and to manage the constraints associated with the technology has lagged behind. This paper presents the major opportunities, constraints, and economic considerations for Design for Additive Manufacturing. It explores issues related to design and redesign for direct and indirect AM production. It also highlights key industrial applications, outlines future challenges, and identifies promising directions for research and the exploitation of AM's full potential in industry.

General information

State: Published
Organisations: Department of Mechanical Engineering, University of Twente, Loughborough University, Deakin University , Ecole Centrale de Nantes, Braun-Aesculap A. G., Friedrich-Alexander University Erlangen-Nuremberg, Cranfield University, Clemson University, Politecnico di Milano
Authors: Thompson, M. K. (Intern), Moroni, G. (Ekstern), Vaneker, T. (Ekstern), Fadel, G. (Ekstern), Campbell, R. I. (Ekstern), Gibson, I. (Ekstern), Bernard, A. (Ekstern), Schulz, J. (Ekstern), Graf, P. (Ekstern), Ahuja, B. (Ekstern), Martina, F. (Ekstern)
Pages: 24
Publication date: 2016
Main Research Area: Technical/natural sciences

Publication information

Journal: C I R P Annals
ISSN (Print): 0007-8506
Ratings:
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 3.93 SJR 1.672 SNIP 3.072
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 1.839 SNIP 3.185 CiteScore 3.83
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 2.73 SNIP 3.99 CiteScore 4.39
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.455 SNIP 3.875 CiteScore 3.87
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 2.175 SNIP 4.2 CiteScore 3.04
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.153 SNIP 3.507 CiteScore 2.81
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.172 SNIP 3.45
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 1.625 SNIP 2.205
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 1.069 SNIP 1.615

Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.145 SNIP 1.482
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 0.867 SNIP 1.962
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 0.936 SNIP 1.843
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 1.575 SNIP 2.264
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.155 SNIP 1.703
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 0.82 SNIP 2.063
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 0.576 SNIP 2.107
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 1.088 SNIP 1.907
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 0.756 SNIP 2.546
Original language: English
Design, Manufacturing, Additive Manufacturing
DOIs:
10.1016/j.cirp.2016.05.004
Source: FindIt
Source-ID: 2306114317
Publication: Research - peer-review › Journal article – Annual report year: 2016