Editorial *PIAM* July 2019

Martin Schäfer¹

Published online: 6 August 2019
© Springer Nature Switzerland AG 2019

Since its inception in 2016, *Progress in Additive Manufacturing* has aimed to address the processing of different materials not only through the use of well-established additive manufacturing (AM) technologies, but also by examination of new or rediscovered methods. It is really impressive how many research groups are working in the area of AM. In order to accommodate them, it was necessary to implement a classification of the manuscripts submitted through the Editorial Manager system. This classification includes areas in the field of additive manufacturing, ranging from terminology, methods and processes, to feedstock materials, finished parts and test methods, data, design, equipment, applications, environment, health and safety, training, education and standards.

The scope also reflects current market developments and industry requirements. If you accept standardization as a mirror of industrial needs, you can find similar developments as well. With the foundation of the ISO additive manufacturing committee ISO/TC 261 in 2011, working groups that were initially established covered terminology; methods, processes and materials; test methods and data processing. In recent years, working items have been extended, along with an upgrade of the topics of systems; quality specifications; design; environment, health and safety; aerospace applications and, finally, plastics.

The present edition covers these issues as well. The investigation of material and material processing still constitutes a

wide share, but processes such as 3D printing of electronics using a cold spraying technique are also examined. On the one hand, the description of procedures by mathematical modelling is illustrated, and on the other hand, connections to industrial applications are established, helping to better understand the opportunities that AM technologies offer.

These opportunities to realize industrial parts production spur economic development. In the previous edition of *PIAM*, our Editorial Board member Christian Seidel mentioned that total AM market volume is approaching US \$10 billion. Other studies predict global market volume for AM material of over US \$20 billion. The medical sector of AM-made organ models alone is expected to have a market share of US \$2 billion. In any case, this shows the ongoing expansion of the market itself and the prospect of new application areas.

The continuing utilization of AM and AM integration in production will increase the need for further research and investigation. I would like to thank our Editorial Board, the reviewers and especially our authors for supporting the aims of *PIAM* and for making this journal a valuable source for researcher and industrial user alike.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

✉ Martin Schäfer
martin.schaefer@siemens.com

¹ Siemens AG, Corporate Technology, Research and Technology Center, Siemensdamm 50, 13629 Berlin, Germany