Editorial

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Biographical notes: Rupinder Singh is working as Associate Professor Production Engineering and Dean Academics in Guru Nanak Dev Engineering College, Ludhiana. He completed his BTech in Production Engineering with honours and MTech in Production Engineering with Gold Medal from P.T.U. Jalandhar. He obtained his PhD in Mechanical Engineering from T.I.E.T. Patiala. He is member of ASME, ISTE, ISME, MPAS, ISC and MIE. He has contributed about 180 research papers in journals and conferences at national/international level. He has supervised 50 MTech theses in production and industrial engineering.

J. Paulo Davim received his PhD in Mechanical Engineering from University of Porto in 1997 and the Aggregation from University of Coimbra in 2005. Currently, he is Aggregate Professor in Department of Mechanical Engineering of the University of Aveiro and Head of MACTRIB – Machining and Tribology Research Group. He has more than 25 years of teaching and research experience in manufacturing, materials and mechanical engineering with special emphasis in machining and tribology. He is the editor of five international journals, guest editor, editorial board member, reviewer and scientific advisory for many international journals and conferences. He has also published more than 300 articles in journals and conferences (more than 160 articles in ISI Web Science, h-index 20).

Recent manufacturing solutions have transformed over centuries from art to science, but impinge on the process responsible for change in metallurgical, mechanical properties (like: surface finish, hardness, dimensional stability, etc.) are still disputed. The aim of this special issue is to highlight 'Advances in rapid manufacturing processes and materials' to address prominent reasons responsible for improving the properties of materials during rapid manufacturing processes.

An ever increasing variety of manufacturing processes and materials are available today, with each having its own characteristics, applications, advantages, and limitations. This special issue highlights the research articles related to advances in rapid manufacturing of processes and materials. Manufacturing process modelling and

optimisation not only remains an ongoing activity but is also becoming increasingly important. In order to address these demands, manufacturing process setting parameters have to be chosen in the best possible way, according to demand on quality. For such optimisation, it is necessary to represent the manufacturing processes in a model. Due to the enormous complexity of many advanced manufacturing processes and the high number of influencing parameters, however, conventional approaches to modelling and optimisation are no longer sufficient. Special attention has been made on these aspects in this special issue.

After the review process, 11 articles were selected for inclusion in this special issue. The guest editor and the editor hope that this special issue will stimulate more research on this topic.

The guest editor and editor would like to thank all the authors and all the referees for their time and their thorough evaluations of these articles.