
Editorial

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Biographical notes: Redouane Zitoune is an Associate Professor of Mechanical Engineering in University Paul Sabatier of Toulouse. His research work is focused on machining (drilling and milling) of composites materials. His current research interests include damage analysis during drilling and milling of composites materials (with conventional machining and abrasive water jet machining) and finite elements simulation of machining. He is also interested in the thermal analysis of composites structures by using optical fibres and finite element simulation. He has published more than 70 technical papers in national and international journals/conferences.

Vijayan Krishnaraj is currently working as Assistant Professor in the Department of Mechanical Engineering at PSG College of Technology, India. He received his PhD in Machining of Composite Materials in 2007. He has authored around 20 journal papers, about 50 conference papers and a book chapter. He received his Postdoctoral Fellowship from University of Paul Sabatier, Toulouse 2008 to 2009. He is also in-charge of the Advanced Tool and Die Centre of PSG College of Technology. He has successfully completed many sponsored research projects funded by DST, ISRO, ARDB and AICTE. His fields of interest include machining, tool design, and composite materials, etc.

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 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 160 articles in ISI Web Science, h-index 23).

The aerospace industry is driving the use of advanced materials such as titanium, nimonic, inconel and composites, and demand for large monolithic parts. Its properties of the materials make them difficult to machine. Especially problems such as rapid tool wear and chatter. The special issue on machining of aerospace materials provides in depth analysis towards machining titanium, and nickel alloys, as well as polymer composites.

After the review process, 14 articles were selected for inclusion in this special issue. The first five articles provide information on machining problems and solutions of machining titanium, which includes turning, drilling and orthogonal cutting. Apart from experimental analysis, finite element simulation of drilling of titanium is also presented. The second sets of papers discuss the machining of Inconel using conventional (turning) and unconventional machining (EDM). The next three papers in this issue address regarding the issues of machining aluminium and MMC. Finally, the last set of articles of this issue discusses the problems linked to machining of fibre reinforced plastic composite materials. The major issues related to trimming, milling and drilling.

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