Editorial

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During the last decades, world globalisation has led to new challenges in the manufacturing engineering area. Manufacturing systems and processes are subject to great advances thanks to both technological improvements and new organisational approaches, such as sustainable manufacturing, flexible manufacturing and computer integrated manufacturing.

The present issue of the *International Journal of Mechatronics and Manufacturing Systems* includes selected papers on 'Advanced manufacturing systems and processes' from the 6th MESIC (Manufacturing Engineering Society International Conference). It took place in Barcelona, Spain, between 22nd and 24th July 2015. A total amount of 174 communications were presented from 19 different countries, of which 59 were presented orally and 115 via poster.

The first edition of the MESIC Conference was held in Calatayud, Zaragoza, Spain in 2005. From that moment on it has been organised with a biannual frequency. The conference represents a platform for sharing knowledge between researchers and also with technicians in related industries, with a special emphasis placed on novel technologies and developments.

The selected papers contain following subjects:

- Advanced fractal proposal for sustainable manufacturing processes.
- Influence of secondary adhesion tool wear on surface roughness in dry turning
- Use of reverse engineering for manufacturing aircraft custom-made parts.
- Hardening effect analysis in indentation processes.
- Determination of friction conditions by means of the ring compression test.
- Design and implementation of the architecture of a flexible machining system using function blocks.

Finally, the guest editors thank all components of the organising and scientific committee of MESIC 2015 Conference, as well as all authors for their contributions to the conference. Special thanks are due to Professor Joan Vivancos as well as to Professor Tugurul Özel, Professor José Antonio Yagüe and the rest of members of *IJMMS* for their help.