

# Preface

Manufacturing Engineering is experiencing a great transformation due to unexpected challenges arising from the current approach to optimization and continuous performance improvement in manufacturing processes, production of large products, miniaturization, development of new materials, manufacturing bioengineering oriented, etc. Recently, engineers and scientists have begun to explore new approaches to manufacture highly complex products based, for example, on additive manufacturing. Moreover, these optimized and emerging processes are aimed at improving the product quality and process performance.

The Manufacturing Engineering Society International Conference is conducted every two years fulfilling one of the most important objectives of the Manufacturing Engineering Society: creating forums for exchanging experiences in this field of knowledge.

The 5th edition of the congress was held in the Paraninfo Building at the University of Zaragoza, Spain, from 26<sup>th</sup> to 28<sup>th</sup> June 2013. Its main objective was to offer a meeting point for professionals, researchers and educators from industry, research centers and academia to present and discuss recent advances in the field of Manufacturing Engineering.

This volume is especially devoted to all the manufacturing engineers that work in Industrial metrology, Industrial quality, Modeling and simulation in manufacturing engineering and Teaching manufacturing and industrial heritage. Thereby, this issue contains peer reviewed selected contributions on the aforementioned fields, showing the most recent advances in the most innovative trends in Manufacturing Systems.

We hope that this work is of special usefulness to all the manufacturing engineers.

Juan José Aguilar Martín  
José Antonio Yagüe Fabra  
(Editors)

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