AMST '05
ADVANCED MANUFACTURING SYSTEMS AND TECHNOLOGY

SEVENTH INTERNATIONAL CONFERENCE ON ADVANCED MANUFACTURING SYSTEMS AND TECHNOLOGY PROCEEDINGS

EDITED BY
ELSO KULJANIC

SpringerWienNewYork
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PREFACE

Manufacturing a product is not difficult, the difficulty consists in manufacturing a product of high quality, at a low cost and rapidly.

Drastic technological advances are changing global markets very rapidly. In such conditions the ability to compete successfully must be based on innovative ideas and new products which has to be of high quality yet low in price. One way to achieve these objectives would be through massive investments in research of computer based technology and by applying the approaches presented in this book.

The First International Conference on Advanced Manufacturing Systems and Technology AMST'87 was held in Opatija (Croatia) in October 1987. The Second International Conference on Advanced Manufacturing Systems and Technology AMST'90 was held in Trento (Italy) in June 1990. The Third, Fourth, Fifth and Sixth Conferences on Advanced Manufacturing Systems and Technology were all held in Udine (Italy) as follows: AMST'93 in April 1993, AMST'96 in September 1996, AMST'99 in June 1999 and AMST'02 in June 2002.

The Seventh International Conference on Advanced Manufacturing Systems and Technology - AMST'05, which was held in Udine in June 2005, aimed at presenting up-to-date information on the latest developments – generated by research activities as well as industrial experience – in the field of machining of conventional and advanced materials, high speed machining, hard and dry machining, CIM, forming, modelling, simulation, non-conventional machining processes, new tool materials, tool systems, tool condition and process monitoring, rapid prototyping, rapid tooling and rapid manufacturing, ecodesign - assembly and disassembly, and quality assurance, thus providing an international forum for a beneficial exchange of ideas and the furthering of favorable and productive cooperation between research and industry.

Elso Kuljanic
FOREWORD

It is the duty of men of science and institutions who work at fostering development, to promote those territorial aspects which – for their intrinsic interest, but also for indications of a general nature that can be drawn – deserve careful consideration.

Working in this direction has reaffirmed the strength of a concept whose affirmation dates back to Charles Bally and as far as 1909: the existence of a homogeneous European civilization, of a true “European mentality”, fruit of a century-long process of cultural convergence, where powerful elements have come together, such as our Greek-Latin heritage, the spread of Christianity, the role of the languages of culture, and a civilization which over time has spread even beyond Europe.

A case in point is the 1987 establishment of the “Work Group for the study of multilingualism in the territory of Alpe-Adria”, under the patronage of The Conference of University Rectors of Alpe-Adria. As a result of the work in this direction, “The International Centre on Multilingualism” (CIP) was established at the University of Udine, which is similar to different Centres in Europe in this field such as the Brussels Research Centre on Multilingualism (Centre de Recherche sur le Plurilinguisme, the Uppsala University’s Centre for Multi-ethnic Research (Centre for Multiethnic Research), and the Mannheim University’s Eurolinguistischer Arbeitskreis Mannheim.

The International Conference on Advanced Manufacturing Systems and Technology has an important role within this process, in that they allow knowledge to converge on Udine where theory and practice continually confront.

The social world we live in has become more and more complex, thus requiring pluralistic, targeted and serious action. This action requires to develop constant innovation and to promote an integration among professions in order to be able to build, design and develop together. With this aim in mind and hoping in a future where exact science and the science of man will be able to work together more closely – in a wider and further reaching concept of universitas and in conformity with institutional expectations whose hearts are set on promoting this Conference – the Proceedings of the AMST’05 Conference will certainly help in spreading this knowledge locally, across the territory of Alpe Adria and globally.

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