

Preface

The aerospace industry is characterized by a high degree of research intensity and rapid developments. Due to this, aerospace industry has a high strategic importance in the development of innovative technologies.

“The aerospace industry is one of the most successful industries in Europe, but also one of the most challenging,” says Hans-Joachim Peters, Chairman of the Machining Innovations Network e.V. and Head of Core Business Unit Part Production, Premium AEROTEC GmbH. “An important contribution to this leadership role is the innovative capacity of the suppliers with their production equipment and technology research,” adds Peters. Despite the long timescales of individual projects due to the necessary approvals innovations are continuously implemented. Currently processes with a high resource efficiency but still good quality and increasing productivity, both in products and in production processes is sought after.

The demand for fuel and resource efficient aircrafts and flights is growing fast from a political as well as social viewpoint. This gives new relevance for the research of new materials and processes, which enable the production of safe and economic aircrafts. Innovative materials need adapted manufacturing processes and this in turn has an impact on planning and organization of factories, machine tools and manufacturing processes.

The Institute of Production Engineering and Machine Tools and the Machining Innovations Network e.V. present in 2013 the Machining Innovations Conference *New Production Technologies in Aerospace Industry*. A total of 26 experts from industry and science will report on two half-days in plenary and technical presentations of the latest innovations and trends. The topics of the different sessions are current trends in manufacturing and production technology as well as planning and organization. For the first time in the 13 year history of the conference, scientific presentations are presented with the latest research results on the key topics of the conference in an extra session. The articles belonging to this scientific session are presented within this issue of “Lecture Notes in Production Engineering”.

Therefore, I’m looking forward to the conference as a whole and the scientific aspects in particular with presentations on current research, captivating presentations and lively discussions about the various aspects of *New Production Technologies in Aerospace Industry*.

New Production Technologies in Aerospace Industry
Proceedings of the 4th Machining Innovations
Conference, Hannover, September 2013

Denkena, B. (Ed.)

2014, IX, 201 p. 131 illus., 95 illus. in color., Hardcover

ISBN: 978-3-319-01963-5