

Foreword



Prof. Marion Merklein

In many cases, the success of products depends strongly on the properties of the outermost layer, which can be enhanced significantly by suitable coatings, modifications and the use of lubricants. The properties of surface layers in combination with lubricants determine their functionality as well as the quality of entire products. Thus, it is essential to present and discuss new developments and scientific findings in the field of coating technology and tribology. The application of coatings offers a promising approach to meet common challenges in manufacturing industry like wear, corrosion, friction or electrical function. Coating provides the potential to combine different material properties and to improve functionality.

The 14th international conference **THE A Coatings** focuses on thin hard coatings, their application and tribology. This conference brings together professionals from industry and academia to present and discuss latest developments on hard coatings in manufacturing processes and on innovative products. The conference is organised by Prof. Bouzakis, Laboratory for Machine Tools and Manufacturing Engineering and Prof. Michailidis, Physical Metallurgy Laboratory, Aristotle University of Thessaloniki, Prof. Denkena, Institute for Production Engineering and Machine Tools, Leibnitz Universität Hannover, myself, Institute of Manufacturing Technology, Friedrich-Alexander-Universität Erlangen-Nürnberg and Prof. Bobzin, Surface Engineering Institute, RWTH Aachen University.

It is a great pleasure and honour for the Institute of Manufacturing Technology to host the international conference **THE A Coatings** for the 3rd time in November 2020. The conference focuses on the presentation and exchange of innovative research activities related to coating and surface technology in 20 international contributions presented in the upcoming two days. In addition, the scientific and social events of the conference will foster personal and professional contacts to establish profitable collaborations.

The organising team wants to thank the members of the International Scientific Committee for their support during the reviewing process. I personally also want to thank my research assistants for their commitment in preparation of the conference and the proceedings.

In this sense, I am looking forward to welcome you and offer a platform for discussion and scientific exchange. I wish all participants a pleasant stay in Nuremberg and an outstanding and valuable conference!

Nuremberg, November 2020

Prof. Dr.-Ing. habil. Marion Merklein

International Scientific Committee

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