

New Developments in Forging Technology

Neuere Entwicklungen in der Massivumformung (NEMU)

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Conference Proceedings of the

International Conference on “New Developments in Forging Technology”

in Stuttgart – Germany, held on May, 14th and 15th, 2019.

Conference Chairman: Univ.-Prof. Dr.-Ing. Dr. h. c. Mathias Liewald MBA
Director of the Institute for Metal Forming Technology (IFU) of the University of
Stuttgart, in cooperation with:
Forschungsgesellschaft Umformtechnik mbH (FGU, Stuttgart / Germany)

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Preface

The International Conference “New Developments in Forging Technology” in Stuttgart / Germany is organized every second year alternating with the International Conference “New Developments in Sheet Metal Forming Technology”. Main goal of both conferences is to join engineers and specialists in metal forming technologies from industry and scientists from universities on a common communication platform. Debates and discussions revealing diverging opinions and perspectives on newest trends in metal forming technology, analyses of current state of the art as well as targets to be reached in research and development in the field of bulk metal forming technologies are highly appreciated during both days of this year’s conference.

The Institute for Metal Forming Technology (IFU / Stuttgart / Germany) annually organizes this venue in collaboration with Forschungsgesellschaft Umformtechnik mbH (FGU / Stuttgart / Germany). For many years, the concept of conference has focused on an effective transfer of scientific results into value added chains of producing companies, which are quite active in forging and such dedicated market segments. The presented topics of selected papers of the conference therefore have to be evaluated in the context of current research activities in cold, semi hot and hot forging technologies in Europe and Asia. Finally, contributions during the conference also intend to present strategic issues of more general topics in production of forged components to external specialists and to figure out the recent state of the art on an international level.

Within the scope of this two-day conference, experts from both universities and industrial companies will present their papers. The topics presented include running investigations and projects being launched in several European and Asian metal forming companies, suppliers of semi-finished products, press machine manufacturers and software vendors addressing their newest achievements. Thus, participants can expect an adequate mix of practical-oriented and theoretical contributions and papers. Stimulated by several contributions supplied by partners of the hosting institute, this year special attention is paid to present and to publish modern practical solutions in warm and cold forging as well as new approaches to integrate sensors into forging tool structures in order to control process development during series production. Therefore, one session of the conference is dedicated to the topic “Industry 4.0”, which deals with the ongoing digitization of production on the shop floor of forging processes.

The conference also provides space and opportunity for partner companies to offer their service and products to conference attendees personally at their booth being located on the conference site. Detailed information and personal consulting provided by booth staff are offered to every interested individual.

The conference programme also includes exciting accompanying events, with two company visits and a quick tour to Stuttgart's largest civil engineering construction site. Hopefully the whole three days venue may meet expectations of our guests to take as much as possible back home into their own day-to-day work.

I would like to thank all authors in advance for contributing and feeling inspired on this conference! I am sure that this book comprising papers presented on May 14th - 15th, 2019 in the Liederhalle in Stuttgart / Germany will be dispatched widely and will be available to all international experts involved.

Sincerely yours

A handwritten signature in blue ink that reads "M. Liewald". The signature is fluid and cursive, with a long horizontal stroke at the end.

Univ.-Prof. Dr.-Ing. Dr. h. c. Mathias Liewald MBA

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