Welcome

Welcome to ACTUATOR 2018 and the 16th volume of the Conference Proceedings of the International Conference on New Actuators. Since 1988, this series of conferences has always been held in Bremen, Germany, every two years. And for 30 years now, it's a good tradition to have the Conference Proceedings ready for distribution to the registered delegates at the start of the event. By now, we have published sixteen proceedings containing almost all the manuscripts related to the presentations – only a few of the manuscripts are missing. We feel that this is a perfect moment to express our sincere thanks – also on behalf of the audience – to all the authors who have supported us perfectly during all these years. That's indeed not common practice with today's conferences, but we are sure this will be a good way to continue in the future.

From our point of view, these manuscripts are the indispensable documentation to refer to during and after the event. About 2,200 conference presentations have been published on 10,000 pages of conference proceedings since the launch event in 1988, since 1998 also in a digital version. That's indeed a huge fund of innovations and scientific results – and this fund is not a hidden treasure! Most of them are still available! We even intend to increase this availability: For the first time, the digital version of these proceedings will be published in cooperation with the VDE Verlag GmbH (VDE Publishing House), now. Hereby, the 2018 manuscripts will be included in the IEEE Xplore Digital Library to ensure an international visibility and a high value for the citation index. This is aimed at providing authors an additional incentive to take the efforts of preparing a manuscript also in the future.

In 2018 we are going to add quite a number of excellent new ones: In total 141 conference contributions, 85 oral presentations and 56 posters are portraying the state of the art technology and indicating future trends. Oral sessions are held in the following fields:

- ► Active Vibration Control / Active Noise Control
- Actuator Control
- Aerospace Applications
- (Bio-)Medical Applications
- ERF / MRF Actuators
- Haptic / Tactile Applications
- Low-power Electromagnetic Actuators

- Magnetostrictive / MSM Actuators
- Microactuators / Microfluid Handling Devices
- Piezoelectric Actuators
- Piezoelectric Actuator Applications
- Polymer Actuators
- Shape Memory Actuators

Including all reviews, a 2018 conference participant has the chance to listen to as many as 38 well selected oral contributions. As usual, all the other contributions, including the posters, will be properly documented in the proceedings. We hope that the conflicts of interest will have been minimised by a well-selected placement of the sessions in the general schedule.

ACTUATOR is not only a brilliant place to present and discuss the latest results in the area of new actuators, it also an excellent place for networking within the worldwide experts' community present at the conference venue, for creating visions for new interresearch co-operations or starting business co-operations with industrial partners.

We appreciate the excellent work and valuable assistance of all the Programme Committee members in order to make this event possible. Furthermore, we are again grateful to our sponsor, the endorsing institutions, the media partners and to all others who have supported our public relations work. Our special thanks go to all those participants who are actively contributing to this event by sharing the results of their research work here – as authors of papers and posters, or as exhibitors.

As every time, we look forward to interesting presentations, lively discussions and helpful new contacts, and we would be delighted to welcome you again in two years for ACTUATOR 2020.

Enjoy your conference!

lans Peter Samich

Hans Peter Schneider MESSE BREMEN General Manager

ber Jorpman

/ Hubert Borgmann MESSE BREMEN Project Manager ACTUATOR 2018