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Optical Measurement Systems for Industrial Inspection X

Peter Lehmann
Wolfgang Osten
Armando Albertazzi Gonçalves Jr.
Editors

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Introduction

This year we celebrate the ten-year anniversary of the Optical Measurement Systems for Industrial Inspection Conference, which takes place in Munich, Germany. Once again, it is an essential part of the SPIE Optical Metrology Symposium and the World of Photonics Congress. As before, the conference covers applications of optical metrology in nearly all relevant fields of industrial production.

Even in times where scientific facts are sometimes ignored there is a broad consensus in science and technology that the acquisition of knowledge based on reliable data is the only option to create sustainable progress. Nowadays, optical metrology is one of the most important fields of measurement technology and is dedicated to collect data in order to control, assess, and improve industrial products and processes. Consequently, the Munich conference has established itself as an important international forum of scientific exchange and discussion of the latest results.

More than 180 submissions impressively demonstrate that even after 18 years the Munich conference series is a considerable event for researchers working in optical metrology all over the world. With more than 75 oral presentations and 90 posters, the 2017 conference could hold the highest number of submissions and an outstanding level of contributions that builds the basis of its success.

As in previous years, a significant number of contributions deal with optical measurement of geometrical features. A field of application of maintaining interest is the measurement of optical components, e.g. aspheres, free-form surfaces, and optical systems. Therefore, the traditional joint session took place with the EOS Conference on Manufacturing and Testing of Optical Components on Wednesday afternoon. Since spectroscopy seems to be of growing interest, even in industrial inspection, we included a Special Session called Spectroscopic Techniques in Industrial and Astronomical Applications on Tuesday afternoon.

As there are always individuals playing a key role and pushing things forward we would like to thank all authors, who not only fill the conference with life but also give added value by contributing to this proceedings volume. Special thanks are due to the distinguished invited speakers, namely John H. Bruning, Corning Tropel Corp. (United States), Robert Schmitt, RWTH Aachen (Germany), Changhe Zhou,

Shanghai Institute of Optics and Fine Mechanics (China), Paul C. Montgomery, Univ. de Strasbourg (France), James Millerd, 4D Technology Corp. (United States), Wei-Chung Wang, National Tsing Hua Univ. (Taiwan), and Alexis Mendez, Micron Optics, Inc. (United States) for their willingness to contribute to the conference with stimulating lectures.

We would also like to express our sincere gratitude to the members of the programme committee for their support in the run-up to the conference. Additionally, many thanks are due to the SPIE staff for their professional and cooperative work during the conference organisation and the preparation of this proceedings volume.

Peter Lehmann
Wolfgang Osten
Armando Albertazzi Gonçalves Jr.