Editorial to selected papers from the 5th International Conference IMEKO TC16

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1. INTRODUCTION

This section is centred on the 5\textsuperscript{th} International Conference IMEKO TC16 which was held in the city of Pereira, Colombia on May 2017. The conference was performed in conjunction with the 6\textsuperscript{th} International Conference of the CCM WG Pressure and Vacuum. The National Institute of Metrology (INM) Colombia organized these conferences.

The main objectives of these scientific events and contributions were to present the latest research, to stimulate information exchanges on current activities dedicated to the measurement, calibration and development of pressure and vacuum. The members of the IMEKO TC16 Board identified 8 valuable contributions presented in the Pereira events, for eventual publication in ACTA IMEKO. Their authors were invited to submit extended and updated versions of their selected papers. All of the authors that gave positive responses to this challenge started sending their extended papers to the ACTA IMEKO online submission system at middle of 2017. A great team of reviewers proceeded in successive stages, their task of assessing the papers and submitting their recommendations. The final list of 6 published papers in this issue is a high-quality exhibit of the papers submitted to our Conferences. All the reviewers involved in the process contributed to improve the shape as much as the intrinsic content of the papers.

We invite you to continue and increase your partnership with ACTA IMEKO in all levels.

2. ABOUT TC16

The realization of the pressure scale comprises 18 decades, from $10^{-9}$ Pa to $10^9$ Pa, this is one of the reasons for which the applications of pressure measurement technology reach into many fields. One example is at the process industry, where all types of manometers and transmitters are found, to measure absolute, gauge and differential pressure. These devices are not only used for the measurement of pressure, but also to control the process. Practice shows that there is an increasing need to carry out international work to homogenize criteria, procedures and uncertainty evaluation to facilitate technical information exchange; to develop projects among groups from different nations; and to support measurements and calibrations for mutual recognition between country's National Metrology Institutes or Accreditation Bodies. This Technical Committee pursues this goal by the organization of different activities. The current members of TC16 are:

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<tr>
<td>Dr. Tokihiko Kobata</td>
<td>Japan</td>
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<tr>
<td>Dr. Jay H. Hendricks, Vice Chairperson</td>
<td>USA</td>
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<td>Dr. María Nieves Medina Martin, Scientific Secretary</td>
<td>Spain</td>
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<td>Dr. Dominik Prazak, Scientific Secretary</td>
<td>Czech Republic</td>
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<tr>
<td>Dr. Jorge C. Torres-Guzman, Advisor (Past Chairman)</td>
<td>Mexico</td>
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3. THE PAPERS

The papers included in this special section range from vacuum to high pressure, including barometric pressure. In addition, the papers present work performed experimentally as well as analytically. It is also important to note that their applications are at industrial level and at national metrology institute level.

We sincerely hope that all the contributions you will find in the next pages provide you with up-to-date information of your interest.

4. CONCLUSIONS

It was an honour for us to act as Guest Editors for a section of ACTA IMEKO, from the perspective of working for a high-profile scientific journal and to promote TC16’s activities.

We have to highlight the quality and great flexibility of the electronic submission platform, the most valuable improvement recommendations and comments of the reviewers, the elevated standards for copyediting, proofreading and layout editing services of ACTA IMEKO.

We want to express our deepest gratitude and appreciation to the two Editors in Chief that work very hard to make this section possible, Prof. Paul P. L. Regtien and Prof. Dušan Agrež.