

## Editorial

Jörg Himmel\*, Daniel Erni, Alice Fischerauer, Olfa Kanoun, Thomas Seeger, and Klaus Thelen

# IEEE Workshop on Industrial and Medical Measurement and Sensor Technology – SENSORICA 2019

<https://doi.org/10.1515/teme-2020-0004>

The highly successful lecture series on the topic of measurement and sensor technologies took place for the eighth time at the University of Applied Sciences Ruhr West in Mülheim on the 6<sup>th</sup> and 7<sup>th</sup> of June 2019. As usual, the workshop was organized in collaboration with the Universities of Siegen, Duisburg-Essen, Bayreuth, the Technical University of Chemnitz and the ITMO National Research University of Information Technologies, Mechanics and Optics in St. Petersburg. The event featured for the third time an even more international orientation by linking it with the Russian SENSORICA.

Regarding 41 contributions from industrial and university experts, the workshop 2019 again addressed an impressive variety of topics covering industrial and (bio-)medical measurement technology as well as sensor technology for vessels. Eight topics were chosen for this special issue.

Two papers refer to optical measurement applications like long-term analysis of fuel vapour restraint systems and measurement of ultrashort laser pulses. One paper addresses the localization of coating defects of naval vessels. Two papers cover issues of rolling mills in steel industry reporting topics of the PIREF (European Regional Development Fund) project. In addition, three individual papers are covering the subjects of a compact EMAT examination system, a real time executable model for dynamic heat flow analysis and the investigation of complex permittivity spectra of foundry sands. Medical engineering topics like surgical navigation systems, blood perfusion aspects on transurethral resection of the prostate tissue and biosensors are the topic of three further contributions which will appear in an upcoming issue.

Our event again offered a platform for knowledge transfer between industry, public and commercial research institutions in the area of measurement technology.

---

\*Corresponding author: Jörg Himmel, University of Applied Sciences Ruhr West, Mülheim an der Ruhr, Germany, e-mail: joerg.himmel@hs-ruhrwest.de

Daniel Erni, University of Duisburg Essen, Duisburg, Germany

Alice Fischerauer, University of Bayreuth, Bayreuth, Germany

Olfa Kanoun, Technical University of Chemnitz, Chemnitz, Germany

Thomas Seeger, University of Siegen, Siegen, Germany

Klaus Thelen, University of Applied Sciences Ruhr West, Mülheim an der Ruhr, Germany