
Guest editorial: Introduction to the special issue Theoretical Electrical Engineering (ISTET 2022)

Guest editorial

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This volume contains selected papers from the XXI International Symposium on Theoretical Electrical Engineering ISTET 2022, held in Szczecin, Poland, June 28th–30th, 2022. Originally the symposium was planned for 2021, but because of the epidemiological situation of COVID-19, the event was postponed to 2022.

The ISTET symposium series (Biennial International Symposium on Theoretical Electrical Engineering) is devoted to research and education in theory and applications of electromagnetic fields, electrical circuits, signal processing and control of electromagnetic systems. In the past 41 years, ISTET symposia were held at Bratislava, Czechoslovakia (1981); Ilmenau, East Germany (1983); Moscow, USSR (1985); Ilmenau, East Germany (1987); Budapest, Hungary (1989); Cottbus, East Germany (1991); Szczecin, Poland (1993); Thessaloniki, Greece (1995); Palermo, Italy (1997); Magdeburg, Germany (1999); Linz, Austria (2001); Warsaw, Poland (2003); Lviv, Ukraine (2005); Szczecin, Poland (2007); Lubeck, Germany (2009); Klagenfurt, Austria (2011); Pilsen, Czech Republic (2013); Kolobrzeg, Poland (2015); Ilmenau, Germany (2017); and Sofia, Bulgaria (2019).

Over the past four decades, the International Symposium on Theoretical Electrical Engineering has gained a worldwide reputation. The 21st edition was organized by the Faculty of Electrical Engineering, West Pomeranian University of Technology, Szczecin, Poland. Thirty papers were presented at the symposium by participants from 12 countries. Among these presentations, there were three invited lectures, which were given by:

- (1) Prof Ryszard Sikora – “Can Science Exist Without Open Discussion?”
- (2) Prof Antonello Tamburrino – “Real-Time Tomography in Soft-Field Electromagnetic Imaging”
- (3) Prof Ping Wang – “Development and application of fusion technology of rail detection and monitoring in rail transit.”

The sessions covered a wide range of conference topics, particularly electrical machines and devices, power systems, bioelectromagnetic applications, metamaterials, fundamentals of electromagnetic fields and electric circuits, and electromagnetic nondestructive evaluation.

Following the standard peer review process, the selected papers were finally accepted for inclusion in this issue of *The International Journal for Computation and Mathematics in Electrical and Electronic Engineering (COMPEL)*.

The ISTET editorial board would like to thank all the authors, session chairs, members of the ISTET International Scientific Committee and anonymous reviewers for their contributions to the workshop and this special issue. We would also like to thank Professor Jan Sykulski, the Editor of COMPEL, for agreeing to this special issue



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and giving many valuable suggestions. Finally, we hope the readership of this special issue will find the included papers interesting and stimulating.

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