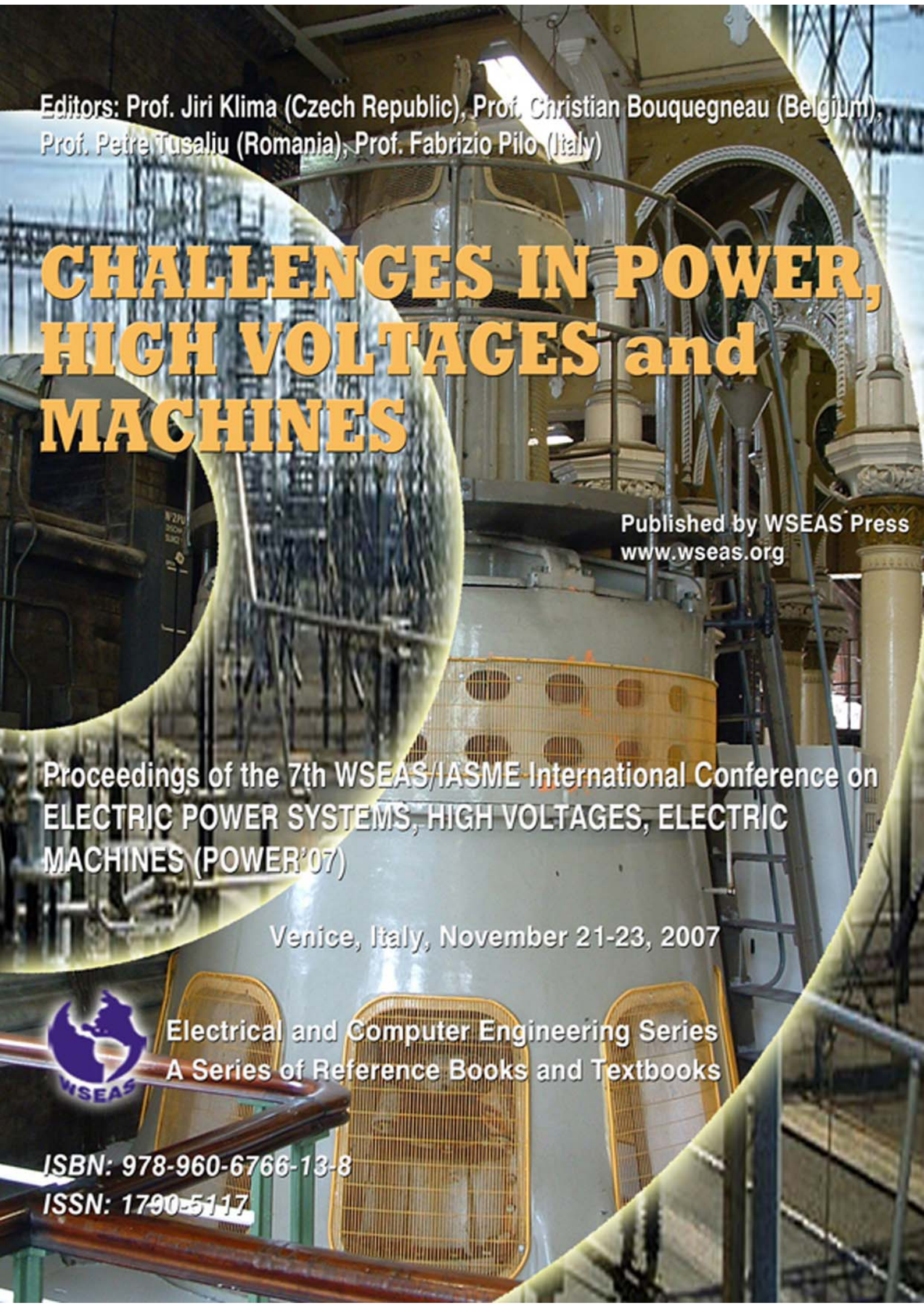

Editors: Prof. Jiri Klima (Czech Republic), Prof. Christian Bouquegneau (Belgium), Prof. Petre Tusaliu (Romania), Prof. Fabrizio Pilo (Italy)

CHALLENGES IN POWER, HIGH VOLTAGES and MACHINES

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Proceedings of the 7th WSEAS/IASME International Conference on ELECTRIC POWER SYSTEMS, HIGH VOLTAGES, ELECTRIC MACHINES (POWER'07)

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Preface

Power System Planning and Management, Transmission and Distribution, Electric machines, Electric Vehicles, Batteries, High Voltage Engineering, Renewable Energy Sources, all are the typical topics of a conference on Power Systems. So, the 7th WSEAS International Conference on Electric Power Systems, High Voltages, and Electric Machines was a successful academic event because of important plenary lectures as well as regular papers that covered the aforementioned areas with great success.

New problems that demand fast computational techniques together with advanced applications that combine modern hardware and artificial intelligence are the new challenges for the Electrical Engineers in a truly competitive world. In our world where the liberation of electric energy market is a new global reality and where the end of the non-renewable sources together with the problem of pollution are international problems threatening the existence of our planet and our life.

The book you are currently holding contains the Proceedings of **the 7th WSEAS International Conference on Electric Power Systems, High Voltages, Electric Machines (POWER'07),** which was held in Venice, Italy, November 21-23, 2007

The Plenary Speeches of POWER'07 were:

- *Power Electronics - Its Impact on Energy and Environment,* by Prof. Bimal K. Bose, The University of Tennessee, TN, USA.
- *Decentralised Collaborative Control for Power System Contingent Operation,* by Prof. Haifeng Wang, The Queen's University of Belfast, UK.
- *Lightning Performance of Power Distributions Lines: Models and Critical Aspects,* by Prof. Amedeo Andreotti, University Federico II of Naples, Italy.

We would like to thank all members of the organizing laboratories for their contribution to the organization of the conference.

The contents of this Book are also published in the CD-ROM Proceedings of the Conference. Both will be sent to the WSEAS collaborating indices after the conference: www.worldses.org/indexes.

In addition, papers of this book are permanently available to all the scientific community via the WSEAS E-Library.

Expanded and enhanced versions of papers published in these conference proceedings are also going to be considered for possible publication in one of the WSEAS journals that participate in the major International Scientific Indices (Elsevier, Scopus, EI, Compendex, INSPEC, CSA .... see: www.worldses.org/indexes) these papers must be of high-quality (break-through work) and a new round of a very strict review will follow. (No additional fee will be required for the publication of the extended version in a journal).

We cordially thank all the people of WSEAS for their efforts to maintain the high scientific level of conferences, proceedings and journals.

The Editors

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