

From the Editor-in-Chief

Now it is evident that our joint decision to publish Special issues with selected papers presented at SDEWES Dubrovnik Conferences has been a far looking decision which from the year 2008 greatly contributed in advertising idea of sustainable development in the South East European (SEE) Countries, and especially in those aiming to become member of the European Union.

From year to year and from one SDEWES Conference to the next one, number of papers presented by authors from SEE Countries, is growing. We believe that significant influence on this trend comes from our Special issues, also, in which we publish every two years, papers selected by reputed Guest editors, devoted mainly to the most important energy problems, common for all SEE Countries.

In this issue, in Part one, nineties papers, mainly written by authors from SEE Countries, presented at 10th SDEWES Dubrovnik Conference, held from September 27th to October 2nd, 2015, are selected. As Guest editors pointed out in their excellent introductory paper, most of the papers selected are devoted to the problem: how in specific country achieve optimal energy mix.

Choice optimal energy mix, and increase the share of renewable energy sources, as pointed out by Guest editors, is especially serious problem for SEE Countries, since their energy systems are mainly based on coal and large hydropower plants, and in some countries also on, in smaller percent on liquid and gas fuels.

Having in mind that SEE Countries are developing countries, incorporation of renewable energy sources is difficult task. To show how researches and engineers in some of the SEE Countries cope with problems to increase share of renewable energy sources in energy mix, and to increase energy efficiency, we added in Part two 12 papers, not presented on 10th SDEWES Conference, but aimed to solve specific problems based on concept of sustainability. Papers are devoted to use of waste for energy production, increase of energy efficiency in buildings, and use of waste heat. One very interesting paper deals with problem of sustainable restoration and conversion of historic buildings, problem existing in SEE Countries, full of historic heritage needed sustainable approach in restoration and conservation.

Editorial Board of the journal *Thermal Science* believe, that all papers selected will greatly help experts in formulation of energy strategies and politic, and researchers to choose proper research topics.

I am deeply grateful to the Guest editors, Professors Daniel R. Schneider, Zvonimir Guzović, Neven Duić, and Stanislav Boldyryev, Ph. D., for their inventive papers selection published in Part one of this issue, and especially for specific introductory papers, giving detailed analysis of the problems connected with introduction of renewable energy sources and available technological and engineering possibilities.

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Belgrade

Professor Simeon Oka
Editor-in-chief

THE 12th CONFERENCE ON SUSTAINABLE DEVELOPMENT OF ENERGY, WATER AND ENVIRONMENT SYSTEMS

September 2017, Dubrovnik, Croatia

www.dubrovnik2017.sdewes.org



Organizers:

University of Zagreb, Zagreb, Croatia
Instituto Superior Técnico, Lisbon,
Portugal

In co-operation with:

University of Sarajevo, Sarajevo, Bosnia and Herzegovina
Industrial University of Santander, Bucaramanga, Colombia
University of Dubrovnik, Dubrovnik, Croatia
Aalborg University, Aalborg, Denmark
Institut National Polytechnique de Grenoble, Grenoble,
France Cologne University of Applied Sciences, Cologne,
Germany Hamburg University of Applied Sciences, Hamburg,
Germany Macedonian Academy of Sciences and Arts –
Research Center ICEIM, Skopje, Macedonia
Delft University of Technology, Delft, The Netherlands
Warsaw University of Technology, Warsaw, Poland
Vinča Institute of Nuclear Sciences, Belgrade, Serbia
University of Belgrade, Belgrade, Serbia
Jozef Stefan International Postgraduate School, Ljubljana, Slovenia
The Scientific and Technological Research Council of Turkey (TÜBİTAK),
Ankara, Turkey
American University of Ras Al Khaimah, Ras Al-Khaimah,
United Arab Emirates



Scope and objectives:

The 12th Conference on Sustainable Development of Energy, Water and Environment Systems – SDEWES Conference, to be held in Dubrovnik in 2017, is dedicated to the improvement and dissemination of knowledge on methods, policies and technologies for increasing the sustainability of development by de-coupling growth from natural resources and replacing them with knowledge based economy, taking into account its economic, environmental and social pillars. One of the main issues of the coming decades is to improve efficiencies by integrating various life supporting systems, using waste from one, as resource in other, and in exact moment when it is beneficial to all, integrating electricity, heating, cooling, transport, water, buildings, waste, wastewater, industry, forestry and agriculture systems. Sustainability being also a perfect field for interdisciplinary and multi-cultural evaluation of complex system, the SDEWES Conference has become a significant venue for researchers in those areas to meet, and originate, discuss, share, and disseminate new ideas.

The Conference will be organised in following sessions:

Sustainability comparisons and measurements methodologies; *Sustainable development as a driver for innovation and employment*; Green economy and better governance; *Decoupling growth from resources*; Decarbonisation; *Energy policy*, Transport policy, *Water policy and the energy-water interaction*; Environmental policy, Agricultural policy; *Environment and corporate social responsibility*; Employment and energy, transport, water and environment systems; *Technology transfer and development*; Social acceptance; *Sustainable resilience of systems*; Sustainable tourism; *Urbanism*; Regional planning and cooperation; *Smart energy systems*; Sustainable islands, regions and cities; *Sustainable shipping*; Microgrids; *Research, innovation and development*; Education in sustainable development; *Cooperation for development*; Energy system analysis, Water system analysis, Transport system analysis; *Life cycle assessment, Environmental impact assessment, Eco-design and Eco-labelling, Product cycle assessment*; Energy planning; *Transport management*; Renewable energy resources; *Primary energy resources*; Water resources; *Food and agriculture*; Renewable electricity generation systems; *Thermal power plants*; District heating and/or cooling infrastructures in future energy systems; *Nano and micro technologies and science for sustainable development of energy, water, and environment systems*; Carbon capture and storage/sequestration; *Nuclear energy*; Advanced sustainable energy conversion systems; *Renewable heat systems*; Biofuels and biorefineries; *Hydrogen production and use technologies*; Hybrid and electric vehicles, Other alternative fuels; *Water treatment*; Water Desalination; *Wastewater treatment*; Waste treatment, Waste to energy, Recycling waste; *Pollution modelling*; Heat and mass transfer modelling; *Cogeneration, Trigeneration, Polygeneration*; Storage; *Electricity transmission and distribution*; Energy efficiency in industry and mining and in agriculture and aquaculture, Energy efficient appliances; *Building*; Energy markets, Emission markets; *Political aspects of sustainable development*.

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