
Guest Editorial

Onder Kizilkan

Faculty of Technology,
Department of Energy Systems Engineering,
Suleyman Demirel University,
Isparta, 32260, Turkey
Email: onderkizilkan@sdu.edu.tr

Mehmet Akif Ezan

Mechanical Engineering Department,
Dokuz Eylul University,
Tinaztepe Yerleskesi,
Buca, 35397, Turkey
Email: mehmet.ezan@deu.edu.tr

Biographical notes: Onder Kizilkan received the PhD in Mechanical Engineering from Suleyman Demirel University, Isparta, Turkey, in 2008. He made his Post-Doctoral Research in University of Ontario Institute of Technology, Oshawa, Ontario, Canada, in 2011, for one year. He is working as an Associate Professor in the Department of Energy Systems Engineering, at Suleyman Demirel University. His current research interests include energy and exergy analysis, sustainable energy resources, refrigeration systems and heat exchangers. He has authored or co-authored over 50 technical papers in major international journals and conferences and served as organising committee member for many national and international conferences.

M. Akif Ezanis is an Assistant Professor in the Department of Mechanical Engineering at Dokuz Eylul University. He received his PhD from the same university in 2011. He was in UOIT, Oshawa, Canada, as a Visiting Researcher in 2011, for one year. He is authored or co-authored of more than 40 technical papers in major international journals or conferences. His main research interests are phase change materials, natural convection driven phase change and numerical heat transfer.

Today, the importance of environmentally friendly, clean, sustainable and efficient energy technologies has significantly increased due to the increasing negative effects of global warming, depletion of fossil fuels and the increase in the global power consumption. In this regard, clean energy resources such as solar, wind, geothermal, biomass and hydro, energy carriers such as hydrogen and energy technologies that convert these resources and carriers into useful electricity, heat and fuel have been considered as crucial topics to be focused in today's world. Many researchers work on these topics to develop more clean, efficient, sustainable and economic solutions for solving these global problems in all over the world. Various research groups have made a

significant progress on the development of different types of clean energy technologies which can effectively and efficiently be used in several applications, ranging from MW to GW level applications.

The *13th International Conference in Clean Energy (ICCE-2014)*, which aimed to warmly celebrate the 90th Birthday of Dr. T. Nejat Veziroglu was held on 8–12 June, 2014 in Istanbul, Turkey. This conference had over 600 oral and poster presentations by many international experts and researchers covering every aspect of clean energy systems and their applications. ICCE-2014 was a multi-disciplinary international conference on the clean energy sources and technologies, and provided a forum for the exchange of latest technical information, the dissemination of the high-quality research results on the issues, the presentation of the new developments in the area of clean energy, and the debate and shaping of future directions and priorities for better environment, sustainable development and energy security. Networking promoted by this conference series helped to create a sustainable partnership of research, demonstration and technology knowledge base to build capacity for economic development and growth in the area of clean energy.

After successful completion of ICCE-2014, we compiled together high-quality papers and bring to fruition this special issue in the *International Journal of Exergy (IJEX)*. Thus, we selected over 10 papers on clean energy resources and technologies to consider for a special issue in IJEX entitled “Exergy analysis of clean energy systems” and have finally ended up with an outstanding special issue with six unique, high-quality papers after going through a rigorous peer-reviewing process for this special issue to improve their quality further for readers of IJEX.

In conclusion, we would like to take this opportunity to warmly thank the Editor-in-Chief, Prof. Dr. Ibrahim Dincer, Editorial Team of Inderscience, all contributing authors, reviewers and organising committee members for their efforts that have made this special issue a true and unique success.