
Editorial

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Biographical notes: Erol Kurt completed his MSc degree from the Institute of Science and Technology in Gazi University in 2001. He was awarded by DFG for a magnetohydrodynamics project in Germany for three years and completed his PhD degree in 2004 in Bayreuth University, Germany. In 2004, he completed his PhD in Bayreuth University. After working in R&D Department of Turkish Atomic Energy Authority, he was assigned as an Associate Professor and then Professor in Gazi University. His main teaching and research areas include energy, chaos, electric machine design, harvesters. He has authored or co-authored many scientific papers. He is the Chairman to *European Conference on Renewable Energy Systems (ECRES)*. He is currently the Chief Editor of *Journal of Energy Systems*.

Jose Manuel Lopez Guede received his PhD degree in Computer Sciences from Basque Country University. He obtained three investigation grants and worked in a company in four years. Since 2004, he worked as a full time Lecturer and since 2012 as Associate Professor. He has been involved in 24 competitive projects and published more than 150 papers, 38 on educational innovation and the remaining in specific research areas. He has 35 ISI JCR publications, more than 32 other journals and more than 85 conferences. He has belonged to more than ten organising committees of international conferences and to more than 15 scientific committees.

This special issue on ‘Advances in renewable energy systems’ includes extended selected papers from the 5th European Conference on Renewable Energy Systems, which took place in Sarajevo, Bosnia and Herzegovina on 27–30 August 2017.

The issue mainly contains papers on the electrical and mechanical explorations of energy systems. Since photovoltaic (PV) modules are frequently installed onto household and many industrial applications, distribution of electrical energy from a PV farm to the grid receives much interest among researchers. Also, it is important for hybrid energy systems such as PV and wind and biomass to generate continuous energy when weather

conditions and agricultural production change. In that case, an energy production from one type to other can be skipped. Another task is to perform energy distribution economically. At that point, a cost analysis becomes an important solution to minimise expenditure. One method is a neural network analysis over the designed system. Of course, any distribution system should contain a storage system such as batteries, capacitors. This emphasises the importance of the power electric components of the distribution networks. On the one hand, the energy systems can be operated with well-designed mechanical components. Some components such as coolers, collectors and pumps are key problems on the way of energy explorations and efficient usage strategies. All these points are addressed in this special issue and are important for readers of mechanical, electrical and energy engineering fields.