Editorial

Achieving energy efficiency: challenges to today's industries

One of the major challenges of today's industries is achieving overall energy efficiency. The first issue of 2017 contains nine papers that discuss various issues and challenges of the energy sector of seven countries that directly or indirectly connect to energy efficiency.

Domanski and Gintrowski compare different approaches (memory-based prediction and fractal approach compared with established non-linear method of neural networks) for the prediction of electricity prices. The study reveals that electricity prices data are biased by the human nature, and the data properties are Cauchy probabilistic distribution. Additionally, the use of the alternative approaches like memory-based reasoning or fractals has potential for application.

Gatzert and Kosub categorize major risk drivers and determinants of policy risk associated with renewable energy projects in developed countries through review of papers published from 2010 to 2013.

Zhu, Ge, Wang and Ding empirically analyse Tianjin industrial energy consumption and carbon emission using secondary data sources and suggest improvement measures. They reveal that energy-saving efforts and the optimization of the industrial structure have increased the energy efficiency of Tianjin.

Mas'ud, Manaf and Saad examine the relationship between the dimensions of oil and gas projects' investment climate; strategy, participants/operating environment, risk/return and the overall latent construct in Malaysia.

Wei, Hu, Luo and Liang analyse China's coal mine safety management evolution from 1949 to 2013 using statistical data analysis to devise novel methods for effectively reducing China's coal mining accidents.

Guta and Borner present a dynamic linear programming model that explores sustainability and efficiency of energy resource development pathways, and evaluate the effects of different sources of uncertainty on the energy sector.

Soni, Singh and Banwet derive priority order of Indian energy sector projects on investments and strategic dimensions angles. Grey system theory (GST)-based complex proportional assessment (COPRAS-G) method, a flexible multi-criteria decision-making (MCDM) analyses is used for prioritising Indian energy sector projects, namely, coal, gas, hydro, solar and nuclear.

Palm and Backman study a Swedish municipality that wants to go beyond its own operations, involving local industry in saving energy to improve the environment. The paper analyses the experiences and practical implications of using policy networks for implementing energy-efficiency measures in private industrial companies.

The study by Elsahati, Ochieng, Zuofa, Ruan and Mpofu appraises the supply of electricity in Libya and proposes a sustainable framework that could be used by policy makers to address energy demand issues in Libya.

We encourage prospective authors to submit original research papers on innovation in achieving energy efficiency. Especially, we invite them to contribute review papers in this area. Original articles on small and medium sized organisations' innovation in achieving energy efficiency are also welcome.

Prasanta Kumar Dey
Aston Business School, Birmingham, UK