Introduction

Desheng Dash Wu

School of Science and Engineering,
Reykjavik University,
Ofanleiti 2, 103 Reykjavík, Iceland

RiskLab,
University of Toronto,
Toronto, ON M5S 3G3, Canada
E-mail: dash@ru.is
E-mail: dash@rislab.ca

Biographical notes: Desheng Dash Wu is the tenured Assistant Professor at Reykjavik University and Affiliated Professor at RiskLab of University of Toronto and Director of RiskChina Research Center at University of Toronto. He also served as the Research Fellow and Affiliated Lecturer at Rotman School of Management, University of Toronto. His research interests focus on enterprise risk management, performance evaluation in financial industry, and credit risk. He has about 30 papers appeared in such journals as *International Journal of Production Research*, *European Journal of Operational Research*, *Annals of Operations Research*, *Expert Systems with Applications*, *Socio-Economic Planning Sciences*, *Computers and Operations Research*, *International Journal of Production Economics*, *International Journal of System Science*, etc. He has served as editor/guest editors/chairs for several journals/conferences. He is a member of PRMIA (the Professional Risk Managers' International Association) Academic Advisory Committee and steering committee member.

We are very pleased to see the special issue of 'Social-Economic Engineering and Environment Issues' at *International Journal of Global Environmental Issues* (IJGEnvI).

During the last decade, the perspective of social-economic engineering of environment issues has attracted a great deal of attention from both researchers and practitioners (Olson and Wu, 2007; Wu and Olson, 2008). This special issue called for papers in the areas of social-economic environment and environment issues in the broad perspective. We have collected seven very useful papers addressing various aspects of these important issues.

Tian et al. addresses an environmental perspective of Nitrogen cycle. Their research show that Anammox has the obvious economic and environmental advantages over traditional nitrogen removal processes with low operation costs and direct nitrogen conversion, thus fastening nitrogen cycling and reducing nitrogen impact on the environment.

Awasthi and Omrani presents an AHP based approach for evaluating sustainable transport solution measures like car-sharing, park and ride, access control zones etc. They show that The state of the city can be classified as positive, very positive, negative,

very negative and indifferent with respect to the change brought about by the implemented transportation measure. The approach is illustrated by an example of car-sharing and measuring its impact on city environmental conditions.

Niu et al. evaluate electric environmental issues using BP neural network with optimised hidden layer nodes. Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) method is used to optimise the number of hidden layer nodes of BP neural network. The method is validated through a case study where power environmental issues were evaluated and high accuracy rate and simple computation complexity were achieved.

Seneviratne and Priyantha analyse the correlation between firing temperature and defluoridation capacity of brick clay. This study shows that the percent removal of fluoride by brick clay fired at intermediate temperatures is high followed by a decrease with that fired at high temperatures.

Wu and Liang employ ecological footprint as a measure to evaluate the sustainability of the natural ecosystems. Ecological footprint is computed and analysed using Neural Networks and Data Envelopment Analysis (DEA).

He et al. discuss environmental risk and cogeneration in China. They choose an interesting case of Zibo Huantai district for analysis. They conclude that the Zibo Municipal government should give policy support on the approval, investment, land, taxation and power interconnection of the cogeneration project, and to ensure the implementation of the new cogeneration unit project, to strengthen the construction, emission reduction and energy saving in order to promote the sustainable socio-economic development.

Zhang et al. analyse the influence of financial situation on environmental information disclosure in China's Chemical Industry.

Thus this special issue includes a variety of modelling approaches to the common theme of Social-Economic Engineering and Environment Issues, an area that has become increasingly important in 21st century business.

Acknowledgements

References

Olson, D.L. and Wu, D. (2007) *Enterprise Risk Management*, World Scientific Publishing Company.

Wu, D. and Olson, D.L. (2008) 'Enterprise risk management: coping with model risk in a large bank', *Journal of the Operational Research Society*, accepted and in press.