



“Gheorghe Asachi” Technical University of Iasi, Romania



EDITORIAL

A SPECIAL ISSUE ON RECENT ADVANCES IN WATER RESOURCE MANAGEMENT AND POLLUTION CONTROL: WITH SPECIAL FOCUS ON CHINA

A fast economic development in China over the last three decades has lifted hundreds of millions of people out of poverty. However, an annual GDP increase of over 10% due to the large scale industrial activities and fast urbanization has released substantial amounts of pollutants into the environment and exerted tremendous pressure on local ecosystems. Although a large amount of investment has been made by the Chinese government and a series of efforts have been made by the environmental regulators, scientists and engineers, the current situation in China is still challenging.

The water in many major rivers cannot be used as drinking water; More than half of the major lakes cannot be considered as drinking water sources as well due to high levels of nutrients (N & P); Many water bodies are even unfit for irrigation; Soils in key agricultural regions are contaminated by heavy metals; Scarce arable land and water resources and important biodiversity are being lost; China's carbon and nitrous oxide emissions are rising; The air quality in many major cities is worrying.

China urgently needs to shift to a more environmentally sustainable model. Full efforts should be made to consider the future growth without further undermining ecosystems and the natural resources. Among them, water resources management and water pollution control is critical in China and will be of increasing importance in the future.

This special issue on recent advances in water resource management & pollution control in *Environmental Engineering and Management Journal (EEMJ)* provides a good opportunity to showcase the most recent research and development on China's water

resource management and pollution control by Chinese scholars (mainland and overseas) and their colleagues worldwide.

The issue begins with a holistic view on China's water management – challenges and solutions. It is followed by different sized research on wastewater and sludge treatment, including novel process development, deep understanding of the treatment mechanisms and cost-effective treatment optimization. Thereafter, the issue presents a number of studies on China's water resource management in regional and national levels.

The authors are invited to contribute their most recent research findings and practical technologies which can most likely be applied in China. We hope that water resource management and pollution control in China will gain a new momentum, if any, through this special issue.

We would like to thank all the authors invited for their participation, this enriching the diversity of perspectives and contents of this special issue. In particular, we highly appreciate the great support from **Professor Matei Macoveanu, Editor-in-Chief of EEMJ**, and **Professor Maria Gavrilescu, Executive Editor**, for providing the valuable journal volume to dedicate a special issue.

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Dr. Yaqian Zhao is the Director of Water and Effluent Laboratory in the School of Civil, Structure & Environmental Engineering, University College Dublin (UCD), Ireland. He received BEng. (1984) and MEngSc. (1990) degrees in China and PhD in Strathclyde University in Scotland (2000). He then worked as Postdoc research fellow in Queen's University of Belfast (N. Ireland, UK) from 2000 to 2004 before joining UCD in 2004. His research covers a number of issues in broad area of water, wastewater and biosolids/residual treatment engineering with specific achievements in (1) constructed wetland systems for wastewater treatment; (2) phosphorus removal/ immobilization/ adsorption and (3) waterworks sludge conditioning, dewatering and beneficial disposal/reuse. Dr. Zhao is an active researcher in international level with over 170 research papers published in refereed journals (highest IF 7.409), book contributions and international conferences. He has been invited to deliver near 80 lectures and research seminars internationally (including Cambridge University, UK). Dr. Zhao is a journal founding member and three journal editorial board members as well as 37 journal reviewers.



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