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## Preface

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**Biographical notes:** Hamidi Abdul Aziz received his PhD in Civil Engineering (Environmental Engineering) from University of Strathclyde, Scotland in 1992. He is now a Professor at the School of Civil Engineering, Universiti Sains Malaysia. His research is focused on alleviating the problems associated with industrial wastewater discharge and solid waste management via land filling, especially on leachate pollution. He continues to serve as peer reviewer for several international journals. He serves as an Associate Editor of the *International Journal of Chemistry and Environment*. He currently sits as the Editorial Board Member of *International Journal of Environment and Waste Management* and *International Journal of Environmental Engineering*.

Mohd. Nordin Adlan obtained his PhD from University of Newcastle Upon Tyne, UK, in 1994. He obtained his PhD in early 1998 from University of Newcastle Upon Tyne. He is a Fellow of the Institution of Engineers Malaysia and a registered professional engineer with the Board of Engineers, Malaysia. He has served as a professional examiner with the Board of Engineers Malaysia and The Institution of Engineers Malaysia. He is now an Associate Professor at the School of Civil Engineering, Universiti Sains Malaysia. His research interest is in areas of dissolved air flotation, water treatment and supply.

Yung-Tse Hung has been Professor of Civil Engineering at Cleveland State University, Cleveland, Ohio, USA, since 1981. He has his BS and MS in Civil Engineering from Cheng Kung University in Taiwan, and his PhD in Environmental Engineering from the University of Texas at Austin in 1970. He has been on faculty and taught at 16 universities in eight countries. His primary research interests are in biological wastewater treatment, industrial water pollution control and industrial waste treatment, and municipal wastewater treatment. He has about ten books, 450 reports and journal publications, and conference presentations.

*Special Issue:* This special issue is intended to publish and disseminate new research findings from researchers who have been working on advanced and effective techniques for leachate treatment. Leachate is produced when water moves downward through a landfill, picking up dissolved materials from the decomposing wastes. The amount of leachate produced is directly related to the amount of precipitation around the landfill. Depending on characteristics of the landfill and the wastes it contains, leachate may be extremely toxic. Generally leachate has a high Biochemical Oxygen Demand (BOD) and high concentrations of organic carbon, nitrogen, iron, manganese, chloride, and phenols. Other chemicals that may be present in leachate include solvents, pesticides, and heavy metals. Modern sanitary landfills are constructed with liners and the leachate is collected and treated to prevent contamination of groundwater or surface waters. Pollutants generated from landfill have potential adverse effect on the environment. If not treated properly they can cause pollution to groundwater, create health problems and effect the environment. It is important that leachate is treated before discharge into the surrounding land, air or receiving waters. Therefore, the papers of this special issue will address research on landfill leachate management and control and the related areas.

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