

Control and Treatment of Landfill Leachate for Sanitary Waste Disposal

Part of the Advances in Environmental Engineering and Green Technologies Book Series

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Description:

Municipal solid waste (MSW) disposal is an ever-increasing problem in many parts of the world, especially in developing countries. To date, landfilling is still the preferred option for the disposal and management of MSW due to its low-cost operation. While this solution is advantageous from a cost perspective, it introduces a high level of potential pollutants which can be detrimental to the local environment.

Control and Treatment of Landfill Leachate for Sanitary Waste Disposal presents research-based insights and solutions for the proper management and treatment of landfill leachate. Highlights relevant topics on emerging technologies and treatment innovations for minimizing the environmental hazards of waste disposal.

Readers:

This innovative publication contributes to filling in many of the gaps that exist in the current literature available on leachate treatment. Waste authorities, solid waste management companies, landfill operators, legislators, environmentalists, graduate students, and researchers will find this publication beneficial to their professional and academic interests in the area of waste treatment and management.

ISBN: 9781466696105

Release Date: December, 2015

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Pages: 459

Topics Covered:

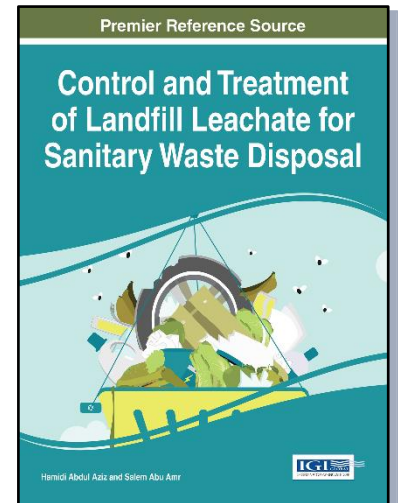
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Abdul Aziz is a professor in environmental engineering in the School of Civil Engineering of Universiti Sains Malaysia. Professor Aziz received his PhD degree in civil engineering (environmental engineering) from the University of Strathclyde in Scotland in 1992. To date, he has published over 200 refereed articles in professional journals and proceedings, 16 chapters in refereed international books, and 8 chapters in refereed national books. He has also published 7 research books. Dr Aziz continues to serve as a peer reviewer for more than 30 international journals. To date, he has reviewed 400 international papers. He also serves as a guest editor of the special issue on landfill leachate management and control of the International Journal of Environment and Waste Management (IJEWM). Professor Aziz currently serves as the editor-in-chief of the International Journal of Scientific Research in Environmental Sciences (IJSRES). He also serves as the managing editor of the International Journal of Environment and Waste Management, IJEWM and the International Journal of Environmental Engineering, IJEE. Aside from these, he is a member of the editorial board of 10 other international journals in the environmental discipline. Professor Aziz's research focuses on alleviating problems associated with water pollution issues from industrial wastewater discharges and from solid waste management via landfilling, such as landfill leachate. Advanced oxidation processes is one of his research focuses. He also has strong interest in biodegradation and bioremediation of oil spills. Professor Aziz has been involved in numerous consultancy works and industrial testing projects related to water and wastewater treatment, solid waste management, landfill leachate treatment, curriculum design, environmental impact assessment, and environmental management planning, to name a few. Professor Aziz has also been involved in international projects. In 2011, he and his team started to be involved in the following two projects in the Kingdom of Saudi Arabia: "The Proposed Design and Tendering for the Safe Closure of Muassim/Mina Disposal Site: Phase 1" and "The Proposed Design and Tendering for the New Phase of the Landfill at Kakia Disposal Site: Phase 1." Both projects were sponsored by the Mayor of Makkah. Since 2011, he has also served as a member of the International Advisory Committee of the Center of Excellence in Environmental Science (CEES) in King Abdul Aziz University in Jeddah, Saudi Arabia. The details of his published work are available through Researcher ID: F-6836-2010 and SCOPUS ID: 7005960760.

Salem Abu Amr obtained his B.Sc. in Environment and Earth Sciences in 2001 and his M.Sc. in Water Resources Management from Faculty of civil engineering, Islamic University, Gaza in 2005. For 12 years prior to continuing his education, he acquired practical experience working on various environmental engineering aspects including water/wastewater treatment and management, Drinking water and sanitary sewer distribution system monitoring, and development of advanced water/wastewater treatment technologies. He received his Ph.D. in environmental engineering from the University of Malaysian Sciences (USM), Malaysia, in 2013. Currently, he is following postdoctoral research fellow in Environmental Engineering at School of Civil engineering, USM, Malaysia (2014 – 2-15). To date, his professional work and research has encompassed development and use of advanced oxidation processes (AOPs) for water/wastewater treatment processes. Dr. Salem also worked as an academic staff and researcher in several research centers, universities and institutes and gained a wide experience and he has a high potential in both practical and academic research work on water and wastewater treatment. He has a good experience to design different types of ozone reactors using for water and wastewater treatment applications. His current research interests include stabilized landfill leachate treatment via (AOPs) and improve the biodegradability of undegradable components. He has reported over 35 publications in several international conferences and ISI journals: 20 articles in referred ISI & Scopus index journals, 5 international articles, 10 publications in international conference proceedings in this field. Dr. Salem ranked 2nd in the world in leachate treatment at the year 2013, and he has selected by Marquis Who's Who in the world 2015 in the field of Environmental sciences and technology. He also a referee for a few international journals and has an editorial responsibilities in IGI global book titled *Control and Treatment of Landfill Leachate for Sanitary Waste Disposal*.