

8ICEG Invited Lecture



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Invited Lecture Title

Remediation Technologies Applied in Polluted Soils:
New Perspectives in this Field

[11:35 - 12:05 , Monday 29th Oct. 2018]

Biography

PhD in Civil Engineering (Geotechnics) from Universidade Federal do Rio Grande do Sul-Brazil. Completed a post-doctorate at the University of Illinois at Chicago-USA, in the area of remediation of soils and groundwater. Professor and Researcher at the University of Passo Fundo in the Graduate Program in Civil and Environmental Engineering, and the Graduate Program in Environmental Sciences. Has approximately two hundred articles published in journals and conferences in the area of Geotechnics. Works as a Geotechnical Consultant for the company Infra-Geo Engineering, Geotechnics and Environmental. Is currently Vice-Rector of Research and Graduation at University of Passo Fundo (2018-2022), President in his state of the Brazilian Society of Soil Mechanics and geotechnical engineering, representative of Brazil on the Technical committee TC215 (Environmental Geotechnics).

Abstract

There are millions of contaminated areas in the world that need to be remediated so that they can be reused without risk to health. It will be presented an amount of contaminated areas in USA, Europe, China and Brazil. The presentation presents the main remediation techniques applied to soils, sediments, and groundwater. These technologies will be presented according the five processes, i.e. physical, chemical, biological, thermal, and combined. The presentation also offers a method for choosing the best technique to remediate a place, called sustainable remediation. An evaluation of the toxicity of remediation techniques is presented. Finally, a summary of remediation practice in China is discussed, and the main challenges of future remediation research are presented.