



**Global Research &
Development Services**

CONFERENCE PROCEEDINGS

ICRST (2018) VIIIth International Conference on Researches in Science & Technology, 10-11 June, Rome, Italy

10- 11 June 2018

Conference Venue

University of Washington - Rome Center (UWRC), Piazza Del
Biscayne 95, 00186 Roma, Italy

Email: info@wasrti.org

<http://wasrti.org/>

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	<p>analysis. In the analysis, finite element program PLAXIS and limit equilibrium program SLIDE were used and critical sections are considered. The parameters used in the analysis were obtained from laboratory and site investigations. In the study, the effect of the model and failure type on the slope stability were investigated. It has been found that soil model type and failure mechanism are main parameters in the stability analysis and there is a good agreement between finite element and limit equilibrium methods. Keywords: Slope stability, finite element method, limit equilibrium analysis.</p>
<p style="text-align: center;">Costel Bumbac GICICRST1806111</p>	<p style="text-align: center;">Experimental Studies On Microbial Populations Diversity In Continuous Flow Aerobic Granular Sludge Systems</p> <p style="text-align: center;">Costel Bumbac Department of Environmental Technologies and Technology Transfer, National Research and Development Institute for Industrial Ecology</p> <p style="text-align: center;">Elena Elisabeta Manea Department of Environmental Technologies and Technology Transfer, National Research and Development Institute for Industrial Ecology</p> <p style="text-align: center;">Abstract</p> <p>Recent trends in wastewater treatment research have focused, under the urge of improving wastewater treatment performances and cost-efficiency, on adapting the aerobic granular sludge technology to continuous flow operation regime.</p> <p>In our study, we followed both the evolution of wastewater treatment performance in lab scale continuous flow bioreactors (in different configurations) and the comparative evolution of the microbial populations of the aerobic granular sludge. The aerobic sludge granules were continuously monitored during reactor start-up, granules formation and steady state conditions, in terms of microbial diversity and morphology by DNA fingerprinting using qPCR amplification and respectively, confocal laser scanning microscopy and scanning electron microscopy. The experimental study focused on nutrient removal performances evaluation and the qualitative and quantitative assessment of specific species or functional genes with increased influence on the performance of biological processes involved in wastewater treatment, namely nitrification, denitrification and phosphorus removal. Keywords: aerobic granular sludge, microbial diversity, wastewater treatment,</p>
<p style="text-align: center;">Elena Elisabeta Manea GICICRST1806112</p>	<p style="text-align: center;">Aerobic granular sludge reactors flow optimization towards continuous flow systems</p> <p style="text-align: center;">Elena Elisabeta Manea National Research and Development for Industrial Ecology –NRDI ECOIND, 71-73 Podu Dambovitei Street, Sector 6, Bucharest, Romania</p> <p style="text-align: center;">Costel Bumbac National Research and Development for Industrial Ecology –NRDI ECOIND, 71-73 Podu Dambovitei Street, Sector 6, Bucharest, Romania</p> <p style="text-align: center;">Abstract</p> <p>Aerobic granular sludge has recently gained the reputation of a complete biological system that allows different process conditions to be obtained (aerobic, anoxic, anaerobic) in the same reactor, thus allowing microorganisms in its structure to be both capable of organic matter removal, nitrification, denitrification and phosphorus removal. Aerobic granular sludge is currently implemented in full scale wastewater treatment</p>