



**13th IWA Specialized Conference on
Small Water and Wastewater Systems**

**5th IWA Specialized Conference on
Resources-Oriented Sanitation**



PROGRAMME

14-17 SEPTEMBER 2016

ATHENS, GREECE

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Welcome

The Sanitary Engineering Laboratory (www.eyt.gr) of the National Technical University of Athens (www.ntua.gr) together with the Hellenic Water Association (www.hwa.gr) are delighted to host the 13th IWA Specialized Conference on Small Water and Wastewater Systems (SWWS) together with the 5th IWA Specialized Conference on Resources-Oriented Sanitation (ROS).

This Conference is part of the activities of the IWA Specialist Groups on Small Water and Wastewater Systems and on Resources-Oriented Sanitation. This event is a continuation of the 12th IWA Specialized Conference on SWWS and the 4th IWA Specialized Conference on ROS which took place in Muscat Oman.

The Conference brings together researchers, engineers, water practitioners from academia, industry, water utilities, public authorities and administration to exchange know how and experiences. Within the Conference knowledge and expertise will be disseminated on innovative systems, technologies and processes which are applied at small and decentralized regions for the management of water and wastewater. The whole water supply chain is considered from water abstraction up to treated wastewater disposal and reuse. Furthermore, resource oriented sanitation as a route to sustainable and ecologically sound sanitation is discussed.

The Conference has several social events, a strong technical programme and a technical tour. We cordially invite you to attend the activities of the Conference and we look forward to welcoming you in Athens.

Conference chairs

Andreas Andreadakis

Daniel Mamais

Simos Malamis



Conference Chairs

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Mamais Daniel	National Technical University of Athens, Greece
Malamis Simos	National Technical University of Athens, Greece

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Omil Francisco	University of Santiago de Compostela, Spain
Stenstrom Michael	University of California, Los Angeles USA
Tchobanoglous George	University of California, Davis, USA
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Petroulias Nicholas	Hellenic Water Association, Greece

Conference Venue

The Conference Venue will take place at Aegli Zappiou. It is located in the very centre of Athens, in the Zappeio Gardens and next to the Zappeion Megaron (the first building designed to serve the needs of the Olympic Games). Aegli Zappiou multiplex includes the café restaurant Aegli Café, the Greek cuisine restaurant “Aegli Estiatorio”, Cine Aegli open air cinema, Aegli Garden summer bar and the events halls Olympia, Proteas, Prive. Aegli is also facing the Acropolis and the Lycabettus Hill, is right next to the Kallimarmaro Stadium and adjacent to Syntagma square and the Greek parliament.



Location of the Event – Athens

Athens is the largest city and capital of Greece. The urban area of Athens (Greater Athens and Greater Piraeus) has a population of approximately 4 million over an area of 412 km². Athens is the most important commercial and economic centre of the country and the main Greek port, Piraeus, is one of the biggest and more important of the Mediterranean. Athens international airport is well connected with the city centre with a train that runs every 30 minutes (blue line), while there is also a bus service (express bus X95 to Syntagma square). The city centre has many neoclassical buildings which are found in Plaka, Panepistimiou Avenue, Thissio Area and Monastiraki. Athens has a very long history and as expected hosts several important museums, including the National Archaeological Museum, featuring the world's largest collection of ancient Greek antiquities, the Byzantine and Christian Museum and the Acropolis Museum. The city offers a range of public transportation which includes the metro and train (3 lines), tram and buses. Furthermore, taxis are relatively cheap when used within the city. The temperature in Athens during September is usually very pleasant ranging from 15-27°C.

The Conference offers a range of social activities for its delegates.

Welcome Cocktail



A Welcome Cocktail will take place on the evening (19:00–21:30) of the 14th September 2016 at the Conference Venue in Aegli Zappiou. The Welcome Cocktail will take place just after the Poster Session. The event is sponsored by TEMAK.

Gala Dinner



The Gala dinner will take place at Saint George Lycabettus hotel (Le Grand Balcon) which offers a magnificent view of the city of Athens. The Gala dinner starts on 20:30 on the 15th of September 2016. The Saint George Lycabettus is a 5 star boutique hotel located in the centre of Athens. It is nestled against the pine-forested slopes of Lycabettus Hill and offers its guest a breath-taking panoramic views over Athens to the Acropolis and the Saronic Gulf. Instructions on how to reach Saint George Lycabettus hotel are given in the invitation which the Conference delegates receive with the Conference bag.

Acropolis Museum tour



On 18:00 17th September 2016 a guided tour will take place at the museum of Acropolis after the technical tour. This guided tour is offered to delegates at an extra cost. The new Acropolis Museum was completed in 2007 and has a total area of 25,000 m², with exhibition space of over 14,000 m². The museum is located in the historical area of Makriyianni, southeast of the Rock of the Acropolis, on Dionysiou Areopagitou Street. It is only 300 metres from the Acropolis, it is very close to the Acropolis metro station and approximately two kilometres from Syntagma Square.

Technical Tour



On Saturday the 17th of September 2016 a technical visit will take place to a water treatment plant and a wastewater treatment plant. The technical visit is fully sponsored by the Athens Water Supply and Sewerage Company (EYDAP S.A.) and is offered free of charge to all Conference delegates. EYDAP is the largest company of its kind in Greece and serves approximately 4,300,000 customers. The technical tour will start at 9:00 from the Conference Venue (Aegli Zappiou) where buses will pick-up the delegates to transfer them to the sites.



The Aspropyrgos water treatment plant has a capacity of 200,000 m³/d and provides drinking water to the western suburbs of Athens, to the island of Salamina and to the area of Thiasio Pedio. The wastewater treatment plant of Psytalia is the main plant for the treatment of sewage in the Greater Athens Area. It treats approximately 730,000 m³/d of municipal sewage and is one of the largest WWTPs in Europe. Its unique feature is that it is located in an island (Psytalia island) a short distance from the mainland. During the technical tour the Horizon2020 projects SMART-PLANT and INTCATCH in which EYDAP is a project partner will be presented.



PROGRAMME
14-17 SEPTEMBER 2016



Aegli Zappiou Olympia Halls III-IV

14:00-15:00 Registration

15:00-16:00 Opening session, Chairs: A. Andreadakis, D. Mamais, S. Malamis

16:00-16:30 Invited speech - Multi-purpose rainwater harvesting, David Butler

16:30-17:00 Invited speech - Wastewater management of the 21st century: issues for the design of small treatment facilities, George Tchobanoglous

17:00-17:30 Invited speech - Source separated sanitation, ready for practice! Grietje Zeeman

17:30-18:00 Invited speech - Past and future for small water and wastewater systems, Hallvard Ødegaard

18:00-18:20 Golden Sponsor AKTOR SA

18:20-19:00 Poster Session

19:00-21:30 Welcome Cocktail



Aegli Zappiou Olympia Halls III-IV

7:30-8:30

Registration

8:30-9:30 Plenary talks, Chairs: C. Noutsopoulos, N. Petroulias, G. Tchobanoglous

8:30-8:50 Plenary speech - Urban sanitation technology development and reinvent the toilet challenge in China, Zifu Li

8:50-9:10 Plenary speech - Extension of the SMART-Plant concept to small wastewater treatment plants, Francesco Fatone

9:10-9:30 Plenary speech - The role of treatment wetlands in resource oriented, small sanitation systems, Fabio Masi

9:30-9:40 Welcome speech from the IWA President elect, Diane d'Arras

9:40-10:15

Coffee break



	Olympia Hall I Chairs: D.A. Reckhow, A. Zouboulis	Olympia Hall III Chairs: H. Ødegaard, Th. Wintgens	Olympia Hall IV Chairs: G. Zeeman, A. Heistad	Privé Room Chairs: J. Oleszkiewicz, F. Fatone
10:15-13:15	Parallel Session 1 Small Scale and Decentralized Water Treatment and Management	Parallel Session 2 Small Scale and Decentralized Wastewater Treatment and Management	Parallel Session 3 Resources-oriented Sanitation	Parallel Session 4 Nutrient Removal/Recovery
10:15-10:30	Biological ion exchange for NOM removal – unforeseen synergies H. Wray, M. Schulz, J. Winter, P.R. Bérubé, B. Barbeau, W. Bayless (Canada)	Small scale wastewater treatment systems in Austria – Situation, trends and developments N. Weissenbacher, G. Langergraber (Austria)	WaterHub @ NEST: a living lab to test innovative wastewater treatment solutions B. Etter, A. Wittmer, B.J. Ward, K.M. Udert, L. Strande, T. Larsen, E. Morgenroth (Switzerland)	Use of marine macroalgae for the treatment of municipal wastewaters and biomass production for animal feed S. Qiu, S. Ge, P. Champagne, M. Robertson (Canada)
10:30-10:45	Onsite defluoridation system for drinking water treatment using calcium carbonate E.Y. Wong, M.K. Stenstrom (USA)	Greywater characteristics and loadings – treatment to promote reuse C. Noutsopoulos, A. Andreadakis, N. Kouris, D. Charchousi, P. Mendrinou, A. Galani, I. Mantziaras (Greece)	Methods for stabilizing and concentrating human urine for use as a fertilizer M. A. Boncz, E. L. Formagini, F.X.C. Arima, P. L. Paulo (Brazil)	Removal of carbon and nutrients from wastewater in a moving bed membrane biofilm reactor: the influence of the sludge retention time G. Mannina, M. Capodici, A. Cosenza, D. Di Trapani (Italy)
10:45-11:00	An evaluation of water treatment technologies for sustainable rural communities D.J. Blackwood, J.M. O’Keeffe, D.J. Gilmour, R.F. Falconer, (UK)	Development of integrated reactor systems for the PV-o powered treatment of domestic wastewater without discharge to the environment M.R. Hoffmann (USA)	Thermal treatment as a method to reduce storage volume and inhibit decomposition of urea in human urine Z. Li, Y. Li, X. Zhou (China)	Nitrogen removal during the treatment of wastewater and landfill leachate in a biological aerated filter G.D. Jojoa-Unigarro, S. González-Martínez (Mexico)
11:00-11:15	Innovative water treatment with the vertical ecosystem for an optimal and safe closed water cycle in tourist facilities J. Kisser, H. Gattringer, A. Zraunig, M. Radtke (Austria)	Decentralized two stage vertical flow constructed wetland system for single household A. Yadav, F. Chazarenc, S. Mutnuri (India, France)	Evaluation of a composting toilet prototype for people in slum area in Indonesia R. Ito, M. Tanie, K. Ushijima, D. Nilawati, J. Triastuti, N. Sintawardani N. Funamizu (Japan)	For how long can soil successfully remove P from wastewater? assessment of a 150 year old ‘ land infiltration system in the UK M. del Mar Batista Seguí, S. Tyrrel, T. Hess, D. Knaggs (UK)
11:15-11:30	Microbiological safety of a small water distribution system: is E. coli a suitable indicator during a severe drought? A.M.M.B. Lopes, P. Meynet, P.P.G. Garcia, S.A.V. Costa,, R. Davenport, D. Werner, C.R. Mota Filho (Brazil)	Small communities decentralized wastewater treatment: assessment of technological sustainability A.G. Capodaglio, A. Callegari, D. Cecconet, D. Molognoni (Italy)	Decentralised black water treatment with combined auto-thermal aerobic digestion and ammonia – a pilot study optimising treatment capacity A. Nordin, D. Goettert, B. Vinnerås (Sweden)	Microalgae as the solution for nutrients recovery from black water: pilot scale study G.H.R. Silva, N. Andriessen, I. Hameleers, T.V. Fernandes (Brazil, Netherlands)
11:30-11:45	Continuous flow process of Cr(VI) removal from drinking water through reduction onto FeOOH by ISRs E. Kaprara, F. Pinakidou, E.C. Paloura, A.I. Zouboulis, M. Mitrakas (Greece)	Optimization of combined UASB and continuous-flow SBR system for sludge reduction and biogas production A. Elawwad (Egypt)	Combining the production of renewable energy with innovative urban drainage systems - The KREIS Project J. Londong, T. Wätzel, Th. Giese (Germany)	Understanding the role of <i>Tetrasphaera</i> in enhanced biological phosphorus removal N. Rey, M. Badia, A. Guisasaola, J.A. Baeza (Spain)
11:45-12:00	Field trial of fluoride removal by phosphoric acid-crushed limestone treatment R.K. Dutta, S. Gogoi, A. J. Borah, R. Mohan, S.K. Nath (India)	Impact of UV radiation dose, suspended solids and organic matter on its efficiency to remove pathogens from greywater A. Gross D. Ferrando Chaves, Y. Alfiya, Y. Gilboa, E. Friedler, (Israel)	Hygiene considerations during the collection, storage and processing of source-separated urine into a marketable fertilizer H.N. Bischel, S. Schindelholtz, M. Schoger, T. Kohn (Switzerland)	Simultaneous calcium phosphate granules and methane recovery from black water J.R. Cunha, T. Tervahauta, R.D. van der Weijden, L.L. Hernández, G. Zeeman, C.J.N. Buisman (Netherlands)
12:00-12:15	Biological hexavalent chromium removal from contaminated groundwater E. Panousi, D. Mamais, C. Noutsopoulos (Greece)	Full scale MET-assisted biofilters for urban wastewater treatment: the H2020 METland project A. Esteve-Núñez, J.J. Salas (Spain)	Science in urine handling and utilization M. Han, S. Hashemi, T. Kim (Republic of Korea)	Treatment of phosphorus and bacteria in filters used for on-site sanitation in cold climate I. Herrmann, B. Vidal, A. Hedström, M. Viklander (Sweden)

	Olympia Hall I	Olympia Hall III	Olympia Hall IV	Private Room
12:15-12:30	<p>Small scale system dynamic management for flooding control Y. Abou Rjeily, O. Abbas, M. Sadek, I. Shahrour, F. Hage Chehade (France)</p>	<p>Novel graphene-based photocatalyst glass coating for organic removal under solar light S. Yu, R.D. Webster, Y. Zhou, X. Yan (Singapore)</p>	<p>Growth of bacteria in treated greywater in the context of blue diversion autarky toilet M. Nguyen, L. Allemann, C. Ziemba, O. Larive, E. Morgenroth, T. Julian (Switzerland)</p>	<p>Optimised phosphorus removal technology for small-scale wastewater treatment by combining metallurgical slags M. Zuo, G. Renman, J.P. Gustafsson (Sweden)</p>
12:30-12:45	<p>Comparing iron and sand mixed media, iron coated sand and conventional media slow sand filters for arsenic removal from groundwater A. Tolsma, K.M. Śmiech, T. Kovács, R. Bekius, V. Dalbosco, K. Yasadi, L. Groendijk, L.L.F. Agostinho (Netherlands, Brazil)</p>	<p>Biodiesel production from granular sludge fed with sugar-containing wastewater A.J. Li, M.X. Li, X.M. Jiang (China)</p>	<p>Nutrients recovery of source separated urine by forward osmosis and a pilot scale resources-oriented sanitation system Y. Xu, L. Zhou, Q. Jia (China)</p>	<p>Improvement of phosphorus removal by calcium addition in the iron electrocoagulation process I. Mishima, M. Hama, Y. Tabata, J. Nakajima (Japan)</p>
12:45-13:00	<p>Bromate detection in bromine disinfected cooling water and removal with the use of granular activated carbon, F.A. Megalopoulos, M.T. Ochsenukuehn-Petropoulou (Greece)</p>	<p>Aerobic and anaerobic biodegradability of accumulated solids in horizontal subsurface flow constructed wetlands T. Carballeira, I. Ruiz, M. Soto (Spain)</p>	<p>A novel approach for stabilizing fresh urine by calcium hydroxide addition D.G. Randall, M. Krähnenbühl, I. Köpping, T.A. Larsen, K.M. Udert (Switzerland)</p>	<p>Adsorption of phosphate from aqueous solution using filter cake for urban wastewater treatment G. Abebe, B. Lemma (Ethiopia)</p>
13:00-13:15	<p>Metal-organic framework/α-alumina composite with novel geometry for enhanced adsorptive separation C. Wang, M. Lee, X. Liu, B. Wang, J.P. Chen, K. Li (UK)</p>	<p>Characterising different sources of grey water for reuse in hotel facilities N. Atanasova, G. Buttiglieri, J. Comas, M. Poch, I.R. Roda (Spain)</p>	<p>Source separation: how ready in the Swedish wastewater sector for technology transition? J.R. McConville, E. Kvarnström, H. Jönsson, E. Kärrman (Sweden)</p>	<p>Nitrification-denitrification of raw municipal wastewater without recirculation, using encapsulated microbial systems M. Farazaki, H. Marakas, P. Gikas (Greece)</p>
13:15-14:15	<p>Lunch break and Poster Session - Meeting of the Specialist Group of Small Water and Wastewater Systems (Olympia Hall III)</p>			

	Olympia Hall I Chairs: P. Bérubé, E. Smeti	Olympia Hall III Chairs: M.A. Deshusses, E. Katsou	Olympia Hall IV Chairs: C.L. Bianchi, A.M.T Mata	Privé Room Chairs: P. Gikas, A.L. Eusebi
14:15-16:30	Parallel Session 5 Small Scale and Decentralized Water Treatment and Management	Parallel Session 6 Small Scale and Decentralized Wastewater Treatment and Management	Parallel Session 7 Micropollutants	Parallel Session 8 Water Reuse
14:15-14:30	Incorporating ferrate oxidation into small drinking water systems D.A. Reckhow, Y. Jiang, J.E. Goodwill, J.C. Cunningham, X.D. Mai, J.E. Tobiason (USA)	Smart city sewer system monitoring for better characterization and management O. Abbas, Y. Abou Rejeily, I. Shahrour (France)	Danish BAT for hospital wastewater treatment - Full scale treatment of hospital wastewater consisting of MBR, GAC and ozone U. Nielsen, P.E. Jørgensen, M.M. Klausen, B.M. Pedersen, J. Søholm, J. Tuerk (Denmark)	Transformations of organic carbon in three greywater recycling systems employing different post-treatments C. Ziemba, O. Larivé, E. Morgenroth (Switzerland)
14:30-14:45	Sustainable water supply and sewerage services for small towns in Vietnam O.M. Keski-Saari (Vietnam)	The use of computational fluid dynamics to select outlet system configuration in biosand filters A.C. Berbert, R.A. de Almeida, R.V. de P. Rezende, S.R. Lautenschlager (Brazil)	Real-time control of micropollutant removal from secondary effluent by ozonation M. Chys, W.T.M. Audenaert, A. Marchi, M. Weemaes, H. Van Langenhove, I. Nopens, K. Demeestere, S.W.H. Van Hulle (Belgium)	Advances in European water reuse Th. Wintgens, R. Hochstrat (Switzerland)
14:45-15:00	Evolution of urban waste- and storm-water management through the centuries focusing on Hellenic civilizations A.N. Angelakis (Greece)	Small scale electrochemical disinfection system with specially coated electrodes C. Sousa, K. Smiech, A. W. Jeremiasse, L.L.F. Agostinho (Netherlands)	Improved photocatalytic and disinfection efficiency of 2D BiOCl modified by Ag nanoparticles W.Y. Zhu, X.L. Yan, Y. Zhou (Singapore)	Operation of a small scale SMBRe system for wastewater reuse K. Azis, Ch. Vardalachakis, P. Melidis, S. Ntougias (Greece)
15:00-15:15	Synthesis and application of iron oxide nanoparticles for household level water treatment T.C. Prathna, S. Kumar Sharma, M. Kennedy (Netherlands)	Assessing factors affecting the reduction of phosphorus and faecal microbes in wastewater by decentralised wastewater treatment systems J.C. Akunna, J. O'Keeffe, L. May, R. Allan (UK)	Triclosan degradation by electro-Fenton process using electrolytic unit with titanium electrodes J. Pérko, H.C.B. Hansen, T. Weidlich (Czech Republic, Denmark)	Wastewater reclamation in India: from policy to execution K.S. Naik, M.K. Stenstrom (USA)
15:15-15:30	Nanofiltration for safe drinking water in underdeveloped regions – a feasibility study S. Ramaswami, Z.N. Ahmad, M. Slesina, J. Behrendt, R. Otterpohl (Germany)	Effect of aeration rate on the performance of a novel nonwoven flat plate bioreactor S.A. García-González, A. Durán-Moreno (Mexico)	Use of suspended and attached growth wastewater treatment systems for the removal of benzotriazoles and benzothiazoles A.A. Mazioti, A. Taka, E. Chroni, A.S. Stasinakis, N.S. Thomaidis, H.R. Andersen (Greece, Denmark)	Creating an enabling environment for WR&R implementation P-M. Stathatou, E. Kampragou, H. Grigoriopoulou, D. Assimacopoulos, C. Karavitis, J. Gironás (Greece)
15:30-15:45	Communal rainwater cisterns of the British rule on Paxos, Greece G. P. Antoniou (Greece)	Fabric filters integrated with ZECU system for sewage treatment in small communities G.B. Bayoumi, A.S. El-Gendy, T.I.M. Sabry, M. Saad (Egypt)	Removal of pharmaceuticals from municipal wastewater by aerated submerged attached growth reactors Y. Flores, P. Mijaylova (Mexico)	Domestic wastewater characterization by emission source C. Boutin, C. Eme (France)
15:45-16:00	Enabling water and sanitation safety planning in rural communities C. Wendland, M. Samwel-Mantingh, B. Mihaylova, M. Isacu, N. Dokovska (Germany, Romania, FYROM)	A Monte-Carlo based method for the identification of potential sewer mining locations I. K. Tsoukalas, C.K. Makropoulos, S.N. Michas (Greece)	The influence factors of phenol wastewater treatment using persulfate activated by FeO B. Wang, J. Li, L. Fang (China)	Promoting on-site urban wastewater reuse through MBR-RO treatment A. Plevri, D. Mamais, C. Noutsopoulos, C. Makropoulos, A. Andreadakis, K. Ripsis, E. Smeti (Greece)
16:00-16:15	Effect of chitosan based Al species on coagulation performance and ultrafiltration characteristics under different pH conditions W. Wang, Q. Yue, B. Gao, Sh. Zhao, R. Li (China)	Serving the unserved: a sustainable sanitary system to serve the remote and deprived hamlets B.T. Hassan, A. El-Gendy (Egypt)	Variation in removal efficiency of micropollutants in on-site sewage facilities studied using target and non-target analysis P.L. Andersson, K. Blum, J. Fick, L. Ahrens, M. Gros, K. Wiberg, B. Björleinius, G. Renman, W. Zhang, P. Haglund (Sweden)	Comparative LCSA of decentralization of wastewater treatment for non-potable urban reuse T. Opher, A. Shapira, E. Friedler (Israel)

Olympia Hall I		Olympia Hall III		Olympia Hall IV		Private Room	
16:15-16:30	Rainwater harvesting for wildlife, a case study: Urmia Lake's Islands J. Tabatabaee Yazdi (Iran)	The evaluation of technologies for small, new design, wastewater treatment systems G. McNamara, L. Fitzsimons, E. Doherty, E. Clifford, Y. Delaure, (Ireland)		Investigating the viability and performance of the pilot scale fly ash/lime filter tower for onsite greywater treatment S. Nondlazi, N. Ngqwala, B. Zuma, R. Tandlich (South Africa)		Heavy metal transfer to Beta vulgaris L., under soil pollution and wastewater reuse D. Papaioannou, I.K. Kalavrouziotis, P.H. Koukoulakis, F. Papadopoulos, P. Psoma (Greece)	
16:30-17:00 Coffee Break							
Olympia Hall I Chairs: J. Baeza, P. Ker Rault		Olympia Hall III Chairs: F. Masi, D. Blackwood		Olympia Hall IV Chairs: K. Moustakas, G. Mancini		Privé Room Chairs: J. Londong, A. Angelakis	
17:00- 18:30 Parallel Session 9 Nutrient Removal/Recovery		Parallel Session 10 Small Scale and Decentralized Wastewater Treatment and Management		Parallel Session 11 Sludge Management		Parallel Session 12 Case Studies on Small Water and Wastewater Systems	
17:00-17:15	Ion exchange/anammox process for nitrogen removal from wastewater D. Smith (USA)	Interlinkages between operational conditions and direct and indirect greenhouse gas emissions in a moving bed membrane biofilm reactor G. Mannina, M. Capodici, A. Cosenza, D. Di Trapani (Italy)		A neighbourhood treatment system for faecal sludge using supercritical water oxidation M.A. Deshusses, K. Jooss, J.M. Abelleira-Pereira, D. Hendry, A. Miller, K.S. Duba, A. Busick, W. Jacoby (USA)		The control of small and medium size public wastewater treatment plants in Veneto region (North Italy): general situation, critical issues and case studies M. Ostoich, F. Serena, L. A. Pozzobon, L. Tomiato (Italy)	
17:15-17:30	Embedding constructed wetland in sequencing batch reactor for enhancing nutrients removal R. Liu, Y. Zhao (Ireland)	Characteristics of microbial community structure in MBRs with different aeration rates Y. Tian, L. Duan, Y. Song (China)		A combined reed bed freezing bed technology for septage treatment and reuse in cold climate regions C. Kinsley, K. Kennedy, A. Crolla (Canada)		Comparative performance between two decentralized wastewater treatment plants in pilot scale for treating low strength wastewater J.A. Silva, A. Sarti,, G.H.R. Silva (Brazil, Netherlands)	
17:30-17:45	Pressurized hydrogenotrophic denitrification reactor for small water systems R. Epsztein, M. Beliaevski, S. Tarre, M. Green (Israel)	Disinfection performance in wastewater stabilization ponds in cold climate conditions: a case study in Nunavut, Canada L. Liu, A. MacDougall, G. Hall, P. Champagne (Canada)		Novel co-valorisation of sewage and marine dredged sludges: preliminary bench scale results A.L. Eusebi, M. Spinelli, P. Battistoni, A. Dell'Anno, L. Rocchetti, F. Beolchini (Italy)		Case study: pilot plant for nitrate removal in groundwater using ion exchange and biophysical treatment of the recirculating regenerant S. Tarre, M. Beliaevski and M. Green (Israel)	
17:45-18:00	Evaluating step-feed for enhanced biological phosphorus removal (EBPR) in tropical climate S. Nan, Z. Yan (Singapore)	Treatment performance of practical-scale down-flow hanging sponge reactor using sixth-generation hard sponge media T. Okubo, A. Iguchi, M. Takahashi, K. Kubota, S. Uemura, H. Harada (Japan)		Real time monitoring of sludge rheology during gas injection V.V. Bobade, J.Ch. Baudez, G. Evans, N. Eshtiaghi (Australia, France)		Decentral drinking water and wastewater treatment at 'De Ceuvel' in Amsterdam E. Klaversma, K. Roest, P. Smeets, T. van den Brand, H. Cortial (Netherlands)	
18:00-18:15	Basic oxygen furnace steel slag and apatite for sustainable phosphorus removal at small wastewater treatment plants N. Fonseca, E. Germain-Cripps, G. Dotro, B. Jefferson (UK)	Application of nano zero valent iron coated granular activated carbon for pathogen inactivation in septic tank effluent T. Koottatep, W. Tassanasuwan, K. Fakkaew, C. Polprasert (Thailand)		Faecal sludge treatment and utilization by hydrothermal carbonization K. Fakkaew, T. Koottatep, C. Polprasert (Thailand)		Decentralized sanitation systems for the southern Ecuadorian Andes, assessment and challenges A. Alvarado, A Galarza, G. Pauta , J. García Zumalacarregui (Ecuador)	

18:15-18:30 A novel approach describing struvite crystal aggregation and granulation in the fluidized bed for phosphorus recovery from swine wastewater
Z.-L. Ye, Y. Deng, X. Ye, J. Wu, , S. Chen (China)

Determination of active biomass in activated sludge of different STPs in India
M. Asfar, R. Zahid Gaur, S. Shakeel Afsar, A. Ali Khan, A. Ali Khan, B. Diamantis, B. Lew, A.A. Kazmi (Israel, India, Greece)

The fate of Helminth eggs during the co-composting of faecal sludge with chicken feathers and market waste
M. Manga, B. E. Evans, M. A. Camargo-Valero, N. J. Horan (UK)

Asset management, water quality and leakage control of small water systems: the case of Nicosia Cyprus
P. Theodoulides, M.G. Antoniou, S. Fotiou, K. Tomaritou, P. Kolovopoulos (Cyprus)

20:30-00:00 **Gala Dinner**



	Olympia Hall I Chairs: K. Udert, A. Brito	Olympia Hall III Chairs: E. Friedler, C. Vialle	Olympia Hall IV Chairs: S. Van Hulle, M.R. Hoffmann	Privé Room Chairs: M.K. Stenstrom, A. Nordin
8:30-10:45	Parallel Session 13 Resource Recovery	Parallel Session 14 Economic and Environmental Assessment Tools / Legislation	Parallel Session 15 Micropollutants	Parallel Session 16 Case Studies on Small Water and Wastewater Systems
8:30-8:45	Development of a new microalgae-based wastewater treatment and reuse system with bioenergy production S. de La Rochebrochard, C. Narváez, J. Vázquez, C.A. Aragón (France, Spain)	Water Framework Directive: A reductionist implementation of a systems directive N. Voulvoulis, K. Arpon, T. Giakoumis (UK)	Screening of different types of on-site sewage facilities - treatment function and potential for removing micropollutants W. Zhang, G. Renman, (Sweden)	Energy audit methodology and key performance parameters (KPI) in small wastewater treatment plants B. M. D'Antoni, S. Longo, E. Akkersdijk, L. Stefani, E. Parelli, F. Fatone (Italy, Spain, Germany)
8:45-9:00	Valorisation of cellulosic sludge by fermentation process: VFAs production and phosphorus recovery D. Crutchik, N. Frison, A. Mattioli, F. Fatone (Italy)	Life cycle assessment of small and decentralized wastewater treatment plants C.S. Lapidou, A. Leka, M.P. Papadopoulou (Greece)	Micro-sized TiO ₂ as photoactive catalyst coated on industrial porcelain grès tiles in water drug photodegradation C.L. Bianchi, B. Sacchi, C. Pirola, G. Cerrato, S. Morandi, V. Capucci (Italy)	A holistic and participatory information system for rural water and sanitation sector in Latin America and the Caribbean D. Requejo, R. Giné, O. Flores, and A. Pérez-Foguet (Spain)
9:00-9:15	Production and in-situ use of biogas in a UASB reactor treating chocolate-industry wastewater under psychrophilic conditions S. Alcaraz-Ibarra, M. Esparza-Soto, M. Lucero-Chávez, C. Fall (Mexico)	Environmental impact of source separation systems for blackwater, greywater and food waste in the H+ urban renewal project, Sweden H. Kjerstadius, A. Bernstad Saraiva, J. Spångberg, Å. Davidsson (Sweden)	Advanced oxidation for aromatic amine mineralization after aerobic granular sludge treatment of an azo dye containing wastewater A.M.T. Mata, N.D. Lourenço, H.M. Pinheiro (Portugal)	Cryptosporidium and Giardia removal in small water treatment systems J.E. Ongerth, P. Karanis (Australia, China)
9:15-9:30	Polyhydroxyalkanoates production using the liquid fraction of hydrolysed municipal organic waste A. Martín-Ryals, A. Chavarrio-Colmenares, R. Paniagua, I. Fernandez, J. Dosta, J. Mata-Álvarez (Spain, USA)	Spatial analysis and environmental effects of decentralized water reuse systems O. Kavvada, J.R. Stokes, K. L. Nelson, T.P. Hendrickson, W. Eisenstein, A. Horvath (USA)	The advanced treatment of wastewater containing tetracycline resistance genes by Fenton oxidation process P Zeng, M. Liao, Y. Liu, J.K. Zhang, Y. H. Song, R.X. Liu (China)	Systematic evaluation of centralized versus decentralized wastewater systems at different connection rates: a case study for a Ukrainian small town B. Helm, C. Karpf, M. Roestel, P. Krebs (Germany)
9:30-9:45	Performance of air-cathode stacked microbial fuel cells systems for wastewater treatment and electricity production E.B. Estrada-Arriaga, Y. Guillen-Alonso, C. Morales-Morales, L.A. Pliego-Sánchez, L. García-Sánchez, E.O. Bahena-Bahenaban, O. Pérez Guadarrama (Mexico)	Analysis of cash transfer programming and market based approaches to achieve water, sanitation and hygiene promotion outcomes in humanitarian response S. Martin-Simpson, E. Katsou, J. Parkinson (UK)	Micro-polluted source water treatment at low temperature by activated carbon filter biologically enhanced with heterotrophic nitrifying bacteria W. Li, W. Qin, X. Gong, X. Huang, F. Cui, J. Nan, P. Wang (China)	Sustainable small wastewater systems in Central and Eastern Europe: Case study Slovenia D. Istenič, I. Ameršek, A. Hercog, R. Müller, T. Griessler (Slovenia, Slovakia)
9:45-10:00	Advances in wastewater treatment by combined microbial fuel cell-membrane bioreactor G. Ray, G. Dhar Bhowmick, M.M. Ghangrekar, A. Mitra (India)	Reuse-oriented decentralized wastewater and sewage sludge treatment for rural settlements in Brazil: A costs-benefit analysis J.A. Cardona, O.C. Segovia, S. Böttger, N.A. Medellín, L. Cavallo, I.E. Ribeiro, S. Schlüter (Germany, Mexico, Brazil)	Organic micropollutants in the water cycle of a Euro-Mediterranean resort: occurrence and perspectives of decentralised water reuse G. Buttiglieri, G. Ferrero, Y. Ekowati, M. Petrovic, C. Perez, I. Rodriguez-Roda (Spain, Netherlands)	Assessment of 32 decentralized wastewater treatment systems in the rural area of Cuenca, Ecuador A. Alvarado, J. Larriva, E. Sanchez, D. Idrovo, F.J. Cisneros (Ecuador)
10:00-10:15	Studies into design and operation of microbial fuel cells using oxygen gas diffusion electrodes A.-L. Schneider, H. Schell, S. Hild, K.-M. Mangold, A. Tiehm (Germany)	Characteristics and performance of small and medium wastewater treatment plants in Greece E. Gavalakis, P. Poulou, A. Tzimas (Greece)	Performance evaluation of selected plants and iron rich media for removal of PPCPs from wastewater in constructed wetlands T. Kootatep, S. K. Chapagain, V.H.N. Phong, A. Panuvatvanich, K.H. Ahn, C. Polprasert (Thailand)	Small-scale wastewater treatment systems & reuse studies in Oman M. Ahmed, M. Baawain, S.A. Al-Jabri, A. Al-Busaidi, S. Al-Lawati, B.S. Choudri (Oman)

Olympia Hall I		Olympia Hall III		Olympia Hall IV		Private Room	
10:15-10:30	Demonstration of suburban sewage pre-concentration by enhanced membrane coagulation reactor (E-MCR) for organic matter recovery: a pilot study Z. Jin, H. Gong, K. Wang (China)	Environmental consequences of including food waste management in agricultural biogas production L. Lijó, S. González-García, J. Bacenetti, M. Fiala, M.T. Moreira (Spain, Italy)	Metronidazole in a UV/TiO ₂ photocatalytic system: fate, removal and mineralization N. Neghi, M. Kumar (India)	Case study: integration of new sanitation technologies into current wastewater infrastructures exemplified by the treatment plant for education and research at the University of Stuttgart C.G. Morandi, S. Wasielewski, R. Minke, H. Steinmetz (Germany)			
10:30-10:45	Microalgae biomass growth and lipid production using primary treated wastewater E.F. Barkonikou, A.F. Aravantinou, I.D. Manariotis (Greece)	A cultural perceptive in the participative valuation of ecosystem services of aquatic ecosystems across Europe: from Evrotas (Greece) to the Broads P. A. Ker Rault, J. Luttkik, E. Kalogianni, N. Voulvoulis (Netherlands, UK, Greece)	Occurrence of pharmaceuticals of different therapeutic classes in surface waters Ch.I. Kosma, D.A. Lambropoulou, T.A. Albanis (Greece)	Case study of full scale treatment plant for wastewater from train washing system M. Ghimpusan, G.D. Nechifor, A.C. Nechifor, P. Passeri (Italy, Romania)			
10:45-11:15 Coffee Break							
Olympia Hall I Chairs: P. Champagne, M. Papadopoulou		Olympia Hall III Chairs: F. Chazarenc, T.Griessler Bulc		Olympia Hall IV Chairs: M. Esparza-Soto, P. Andersson		Privé Room Chairs: J. Akunna, S. Tarre	
11:15-13:00 Parallel Session 17 Small Scale and Decentralized Water Treatment and Management		Parallel Session 18 Small Scale and Decentralized Wastewater Treatment and Management		Parallel Session 19 Anaerobic Treatment		Parallel Session 20 Nutrient Removal/Recovery	
11:15-11:30	Evaluating water purification at household level in India B. Aumeier, X. Jiang, S. Djeljadini, P. Smeets, S. Yüce, C. Kazner, M. Wessling (Germany)	Minimisation of sequencing batch reactor volume by optimisation of the hydraulic and solids retention time A. A. Rasheed, D. Dionisi (UK)	Control of dissolved CH ₄ in a UASB reactor effluent from municipal wastewater treatment A. Huete, D. de los Cobos, T. Gomez-Borraz, J.M Morgan-Sagastume, A. Noyola (Mexico)	Application of metakaolin geopolymer for ammonium removal in small-scale wastewater treatment systems T. Luukkonen, K. Věžníková, E.-T. Tolonen, H. Runtti, J. Yliniemi, T. Hu, K. Kemppainen, U. Lassi (Finland)			
11:30-11:45	Preventing maritime transport of pathogens - the remarkable antimicrobial properties of Ag supported catalysts for ships ballast water disinfection Ch.P. Theologides, S. P. Theofilou, B.K. Constantinou, C.N. Costa (Cyprus)	Treatment and reuse of wastewater using surface and subsurface wetlands L. Al-Hadidi, M. Dukah, M. Shatanawi (Jordan)	Efficient biogas production with small WWTP using co-fermentation P. Hartwig, K. Passiou (Germany)	Influence of temperature on MBBR denitrification for advanced nitrogen removal of wastewater treatment plant effluent H.Y. Wang, K. Liu, Q.Y. Hang, Q. Yuan, M.J. Ma, C.M. Li (China)			
11:45-12:00	Experimental and theoretical approach of a multi-stage membrane distillation system P. Boutikos, E.Sh. Mohamed, E. Mathioulakis, V. Belessiotis (Greece)	Application of powdered activated carbon (PAC) for membrane fouling control in a pilot-scale MBR system A.I. Zouboulis, P.K. Gkotsis, D.X. Zamboulis, M.M. Mitrakas (Greece)	Start-up of a decentralized pilot plant for the anaerobic treatment of domestic wastewater L. Fröba, M. Vega, F. GroB, A. Delgado (Germany)	Applying micro-bubble diffusion in a hydrogenotrophic denitrification reactor to remove nitrate from groundwater R. Eamrat, Y. Tsutsumi, T. Kamei, W. Khanitchaid-echa, F. Kazama (Japan)			
12:00-12:15	Unstructured post construction support under structured local governance: evidences from rural drinking water service delivery V. Kurian Baby, P.K. Kurian (India)	Effect of different bypass rates in hybrid vertical-horizontal flow constructed wetlands treating synthetic and real municipal wastewater O.G. Gonzalo, I. Ruiz, M. Soto (Spain)	Impact of HRT and temperature on an anaerobic moving bed biofilm reactor treating brewery wastewater A. di Biase, T. R. Devlin, J. A. Oleszkiewicz (Canada)	Cost-efficient phosphorus removal in rural WWTPs M. Cramer, T. Koegst, J. Tranckner (Germany)			
12:15-12:30	Passive membranes for drinking water treatment in small and remote communities N. Khadem, P. Oka, P.R. Bérubé (Canada)	Treatment of edible-olives production industries wastewater by the active clay sediments process P. Gikas (Greece)	Feasibility of UASB-septic tank for high strength municipal wastewater treatment in Mexico City A L. Santiago-Díaz, I.D. Barceló-Quintal, M.L. Salazar-Peláez (Mexico)	Continuous versus batch contacting for nutrient removal from human urine upon processing with clinoptilolite-II: an appraisal of possible system dimensions and costs A. D. Allar-Emek, B. Beler-Baykal (Turkey)			

	Olympia Hall I	Olympia Hall III	Olympia Hall IV	Private Room
12:30-12:45	Water management as traced in the fountains of Ancient Corinth settlement during the Ottoman times E.I. Kanetaki (Greece)	A modified constructed wetland system for grey water treatment and reuse J.B. Silva, P.J.A. Oliveira, M.A. Boncz, P.L. Paulo (Brazil)	Impacts of blackwater co-digestion upon biogas production in pilot-scale UASB and CSTR reactors S. Wasielewski, C.G. Morandi, K. Mouarkech, R. Minke, H. Steinmetz (Germany)	Nutrients removal from anaerobic effluent with <i>Chlorella vulgaris</i> A. Cerón-Vivas, J.C. Serrano, M.P. Villamizar, A.M. Ardila, Y. Gamarra (Colombia)
12:45-13:00	Development of prototype system for the treatment of brackish water coupled with a hybrid renewable energy M. Loizidou, K.J. Haralambous, C. Lytras, Y. Al Aitan (Greece, Jordan)	European market for decentralized waste water systems E. Dorgeloh, D. Verschitz (Germany)	Treatment of poultry slaughterhouse wastewater using a static granular bed reactor (SGBR) coupled with Ultrafiltration (UF) membrane M. Basitere, Z. Rinquest, M. Njoya, M.S Sheldon, S.K.O, Ntwampe, D. De Jager, (South Africa)	Electrochemical stripping to recover nitrogen from urine W.A. Tarpeh, K.L. Nelson (USA)
13:00-14:00	Lunch break and Poster Session Meeting of the Specialist Group of Resources-Oriented Sanitation (Olympia Hall III)			
	Olympia Hall I Chairs: P.L. Paulo, Z. Li	Olympia Hall III Chairs: M. Loizidou, E. Gavalakis	Olympia Hall IV Chairs: A. Noyola, P. Hartwig	Privé Room Chairs: A. Hedström, G. Mannina
14:00-16:15	Parallel Session 21 Resources-oriented sanitation	Parallel Session 22 Small Scale and Decentralized Wastewater Treatment and Management	Parallel Session 23 Anaerobic Treatment	Parallel Session 24 Nutrient Removal/Recovery
14:00-14:15	Onsite faecal sludge treatment with the anaerobic digestion pasteurization latrine A.A. Forbis-Stokes, P. O'Meara, W. Mugo, G. Simiyu, M.A. Deshusses (USA, Kenya)	Anaerobic/aerobic (AnMBR/AMBR) membrane bioreactor treatment for textile wastewater S.I. Bouhadjar, J. Hoinkis, F. Galiano, A. Figoli, M. Djennad (Germany, Italy, Algeria)	AnMBR technologies (CSTR and UASB type) for winery wastewater treatment at low temperatures N. Basset, E. De Arana-Sarabia, C. Vidal, A. Coll, I. Fernández, J. Dosta, J. Mata-Álvarez (Spain, Italy)	Hydrolysed urine concentration by forward osmosis: numerical modelling of water flux and nutrient concentration B.C.W. Nikiema, R. Ito, G. Mokhtar, N. Funamizu (Japan)
14:15-14:30	The Autarky toilet – a modular approach for integrated on-site treatment of wastewater, urine and faeces through stream separation at the source S. Enssle, K. M. Udert (Switzerland)	Use of horizontal subsurface flow constructed wetlands with recirculation as post-treatment of UASB reactor effluent L.S. Ferreira, P.E.S Chinelis, D.V Vich, L.V dos Santos, L.M. Queiroz, (Brazil)	An integrated approach to biogas production and phosphorus recovery from waste activated sludge: effect of temperature X.L. Liu, M.M. Wang, C. Song, Y.H. Song, R.X. Liu, X.J. Hu, X.Y. Liu (China)	Influence of the sludge age on phosphorus concentration I. Johanidesová, T. Fuka, I. Růžicková, M. Pečenka, D. Vejmelková, M. Studničková, J. Wanner (Czech Republic)
14:30-14:45	A comparison of the design criteria of 141 on-site treatment systems available on the French market V. Dubois, C. Boutin (France)	Transition of water infrastructure systems K. Maier, J. Londong (Germany)	Fouling membrane in an anaerobic membrane bioreactor treating municipal wastewater treatment A. Cerón-Vivas, A. Noyola (Colombia)	Distinctive denitrifying capabilities leads to different N ₂ O production in dPAO and dGAO cultures A. Ribera-Guardia, R. Marques, C. Arangio, M. Carvalheira, A. Oehmen, M. Pijuan (Spain)
14:45-15:00	Sao Tome and Principe innovative resource recovery approach to sanitation: lessons learned and the way forward A.J. Mendes, A.G. Brito, J. Lima, S. Quaresma, C. Diogo, G. Ramos, C. Jesus, (Portugal)	CFD simulation for improving performance of septic tanks T. Pussayanavin, T. Koottatep, N. Phoocharoen, A. Panuvatvanich, R. Eamrat, C. Polprasert (Thailand)	Anaerobic digestion of liquid products following hydrothermal carbonisation of sewage sludge with different reaction conditions E. Nyktari, A. Wheatley, E. Danso-Boateng, R. Holdich (UK)	A novel ZVI assembled anammox reactor for strengthening anammox process to adapt extreme circumstance L.F. Ren, S.Q. Ni (China)
15:00-15:15	Benefits of source separating sanitation in terms of energy and nutrient recovery D. Todt, M. Eshetu, A. Heistad (Norway)	Improving the parameter identifiability of a watershed scale wastewater infiltration model B. Helm, X. Gu, P. Krebs (Germany)	Effect of temperature on treating low strength wastewater in an anaerobic immobilized bio-plates reactor P. H. Wu, C. Y. Tien, C. F. Lin (Taiwan)	Performance of reactive slag filter for high concentration phosphorous removal from aqueous solutions K.H. Kang, H.G. Kim, T.J. Park, I.G. Byun (Republic of Korea)

	Olympia Hall I	Olympia Hall III	Olympia Hall IV	Private Room
15:15-15:30	Why China Needs "Toilet Revolution"? S. Cheng, M. Zhao, Z. Li, X. Zhou, H.-P. Mang (China)	Fingerprinting of small point discharges and the impact on receiving waters S. Richards, E. Paterson, P.J.A. Withers, M. Stutter (UK)	Fertilizer effect of UASB (55oC) effluent with limestone as fixed bed treating vinasse on development of Brachiaria Brizantha cv. Xaraés L.G.F. Gregio, J.B. de Azevedo, F.J.C. Magalhães Filho, A.S. de Paiva, D. de O. Guilherme, M.P. Cereda (Brazil)	Hybrid adsorption and biological treatment system (HABITS) for enhanced nitrogen removal in onsite wastewater treatment systems L.C. Rodriguez-Gonzalez, K.A. Payne, M.A. Trotz, D.L. Anderson, S.J. Ergas (USA)
15:30-15:45	Principal component analysis of raw domestic sewage A. Breton, C. Vialle, C. Albasi, M. Montrejaud-Vignoles, C. Vignoles, P. Gallien, C. Sablayrolles (France)	Constructed wetland systems according to new German guideline DWA A-262 H. Rustige, J. Nowak (Germany)	Effectiveness of a desorption chamber for the removal of dissolved gases from anaerobic effluents R.M. Glória, C.L. Souza, C.A.L. Chernicharo, M.E.A. do Carmo, P.V.O. Silva (Brazil)	Inhibition of encapsulated nitrite oxidizing bacteria by short time exposure to hydroxylamine I. Johanidesová, P. Kelbich, A. Benáková, B. Uličník, O. Škorvan, R. Stloukal, J. Wanner (Czech Republic)
15:45-16:00	Performance study of biofilter system for onsite greywater treatment at cottages and small households M. Eshetu, D. Todt, F. Ejigu A. Heistad (Norway)	Tequila vinasses treatment with Basidiomycetes fungi A. Alvillo-Rivera, M. Garzón-Zúniga, E. Estrada-Arriaga, M. Esperanza-Ramirez, G. Buelna, G. Diaz-Godinez (Mexico)	Performance assessment of combination of an upflow anaerobic sludge blanket reactor and high rate algal pond for complete sewage treatment P. Chatterjee, S.C. Jain, C. Maity, M. M. Ghangrekar, A. Real, C. A. Aragon, I. Martin, J.J. Salas (India)	Evaluation of passive reduction of salts and nitrate from greenhouse effluent by planted bioreactors S. Fatehi Pouladi, B. C. Anderson, B. Wootton, L. Rozema (Canada)
16:00-16:15	From waste to resource: eco-toilet as a novel resource oriented sanitation practice S. Hashemi, M. Han, T. Kim (Republic of Korea)	Sorption of metals on biologically waste material L. Rozumová, P. Kůs, I. Šafařík (Czech Republic)	Technological improvements in compact UASB/SBTF systems for decentralized sewage treatment in developing countries T.B. Ribeiro, E.M.F Brandt, C.A. Díaz, P.G.S. Almeida, C.A.L. Chernicharo (Brazil)	

16:15-16:45 Coffee Break

	Olympia Hall I Chairs: T. Albanis, M. Mitrakas	Olympia Hall III Chairs: A.G. Capodaglio, I. Herrmann	Olympia Hall IV Chairs: P. Melidis, A. Gross	Privé Room Chairs: N. Voulvoulis, C. Boutin
16:45-18:30	Parallel Session 25 Micropollutants	Parallel Session 26 Small Scale and Decentralized Wastewater Treatment and Management	Parallel Session 27 Wastewater Treatment and Reuse	Parallel Session 28 Environmental and Economic Assessment / Legislation / Social Issues
16:45-17:00	Removal of cytostatic drugs by UV, UV/H2O2 and UV/persulfate: process optimization and cost comparison T.-T. Lim, Y. Zhang, J. Zhang, Y. Xiao, V. W.C. Chang (Singapore)	Urine concentration by forward osmosis process T. Maeda, B. Nikiema, C. Wind-Yam, G. Mokhtar, R. Ito, N. Funamizu (Japan)	Reuse possibilities in view of the existing legislation in Greece A. Andreadakis, D. Mamais, C. Noutsopoulos, S. Malamis (Greece)	Supporting policy action to improve small-scale water supply and sanitation systems: situation assessment and collection of tools and good practices from the WHO European Region B. Rickert, E. Shinee, O. Schmoll, D. Jovanovic, M. Samwel (Germany, Serbia)
17:00-17:15	Development and validation of an extraction method for commonly used antidepressants from wastewater samples J. Trontelj, A. Klančar, R. Roškar, A. Kristl (Slovenia)	The all-gas process: reaching energy self-sufficiency in small WWTPs R. Cano, I. de Godos, M. Fernandez, E. Lara, F. Rogalla, Z. Arbib (Spain)	Criteria and operational guidelines to increase wastewaters recovery in islands and rural areas G. Mancini, L. Cosentino, G. Signorello, A. Luciano, D. Fino (Italy)	A comparison of drivers behind implementation of source separation systems in three urban pilot areas in Northern Europe H. Kjerstadius, A.-K. Skambraks, M. Meier, M. Wuttke, T. Giese, Å. Davidsson (Sweden, Germany)

Olympia Hall I Chairs: A.M.T. Mata, P. Andersson		Olympia Hall III Chairs: A.G. Capodaglio, K. Kennedy		Olympia Hall IV Chairs: P. Melidis, A. Gross		Private Room Chairs: N. Voulvoulis, C. Boutin	
17:15-17:30	Partition behaviour and fate of perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) in riverine sediments R.X. Liu, J.Y. Tian, B. Li, X.X. Gong, Y.Y. Liu (China)	Effect of flux in a membrane SBR (MSBR) treating the liquid fraction of manure O. Sözüdoğru, V. Vasilaki, O. Komesli, T. Massara, S. Komesli, E. Katsou (Turkey, UK)	Effect of the dosage of ferrous oxide on batch anaerobic treatment of high strength synthetic wastewater Q. Yin, Z. Hu, Y. Sun, B. Li, G. Wu (China)	Meeting cultural and water quality objectives for greywater treatment with a wetland and advanced infiltration zone J. Sukias, R. Stott, C.C. Tanner, J. Nagels (New Zealand)			
17:30-17:45	Demonstration testing of a system for the high speed monitoring of the radioactive concentration of wastewater in situ H. Fukui, H. Oota, H. Hirano, T. Hatano, H. Saito (Japan)	Physicochemical treatment of light grey water: An experimental study using membrane filtration E. Giresunlu, E. Soyer, B. Beler-Baykal (Turkey)	Current situation of treated wastewater reuse in golf courses in Marrakech (Morocco): problems and solutions H. Benlouali, M.C. Harrouni, M. Fallah, A. Hirich, R. Choukr-Allah (Morocco, United Arab Emirates)	Environmental assessment of alternative treatment configurations for wastewater and domestic organic waste L. Lijó, M.T. Moreira, E. Katsou, S. Malamis, S. González-García (Spain, UK, Greece)			
17:45-18:00	Degradation of di-2-ethylhexyl phthalate (DEHP) by indigenous isolate Acinetobacter sp. J.M. Xu, X.Q. Li, Q.H. Lu, R.A. de Toledo, H. Shim (China)	Turning black into green: ecosystem services from treated wastewater E. Rozos, I.K. Tsoukalas, C. Makropoulos (Greece)	Efficiency concept under stochastic consideration of water value in irrigated agriculture land in Crete, Greece M. Elhag (Saudi Arabia)	Comparison of pupils' acceptance of conventional and ecological sanitation in rural schools C. Wendland, F. Jorritsma, S. Herbst, I. Wienpahl (Germany, Netherlands)			
18:00-18:15	Inhibitory effects of polar and non-polar organic substances on activated sludge activity V. Inglezakis, A. Kudarova, D. Tarassov, A. Jetybayeva, Y. Myngtay, D. Zhalmuratova (Kazakhstan)	Modified cesspool system with upflow sludge tank and low-cost photobioreactor N. Surinkul, Th. Koottatep, C. Chaiwong, T. Singhopon (Thailand)	Assessment of multiplex real-time PCR against direct immunofluorescence and nested PCRs for the detection of Giardia, Cryptosporidium and Entamoeba histolytica in sewage C.M. Vassalos, A. Charlett, E. Vassalou, A. Biba, G. Dounias, G. Tzanakaki, A. Mavridou, G. Spanakos (Greece)	Environmental assessment of an EBPR-SBR devoted to small populations A. Real, A.M. Garcia-Martinez J.R. Pidre, M.D. Coello, C. A. Aragon (Spain)			
18:15-18:30		Decentralized wastewater treatment using textile filters: the Hellenic experience E.G. Dialynas (Greece)	Coagulation efficiency and floc structural characteristics of ferrum-polymer dual-coagulant for treatment of synthetic dyes wastewater R. Li, B. Gao, Q. Yue, H. Zheng (China)	Steps towards implementing decentralized rural sanitation solutions: An institutional assessment of the Brazilian sanitation sector K. Kreter, J. A. Cardona (Germany)			

18:30-19:00 Closing Session

Day 4 Saturday 17 September 2016

9:00-18:00 Technical tour sponsored by EYDAP SA to the Water Treatment Plant of Aspropyrgos and to the Wastewater Treatment Plant of Psyttalia
Presentation of H2020 projects SMART-PLANT, INTCATCH, C-FOOT-CTRL

18:00 Visit to the Acropolis Museum



- P1. Yun Chen, Zhou Yan (Singapore)
The effect of temperature on VFA production and composition treating mixed sludge
- P2. L. Lv, W. Li, W. Qin (China)
Start-up procedures and hydraulic characteristics of an innovative controlled double circle anaerobic reactor for treating traditional Chinese medicine wastewater
- P3. M. P. Kavvalakis, E.G. Dialynas, G. E Dialynas (Greece)
Advanced treatment of laundry wastewater with coagulation and flocculation
- P4. E. El. Bestawy, R. Aburokba (Egypt)
Efficiency of Pseudomonas stutzeri strain M15-10-3 in the treatment of leather tanning industrial wastewater using gravel biofilm system
- P5. J. Huang, Y. Gao, C. Fu, Z. Cheng, J. Chen (China)
Removal in two-stage anaerobic sequential batch reactor with starch as a primary electron donor
- P6. X. Yang, J. Zhang, G. Xu (China)
Tetracycline adsorption onto ferric activated sludge-based adsorbent derived from biological sludge
- P7. H. Kjerstadius, E. Kärman, M.Hagman, Å.Davidsson (Sweden)
Economic analysis of source separation systems for blackwater, greywater and food waste in the H+ urban renewal project
- P8. K. Hii, R. Parthasarathy, S. Baroutian, D. Gapes, N. Eshtiaghi (Australia, New Zealand)
Thermal hydrolysis of secondary sewage sludge and viscosity decrease
- P9. S. Malamis, C. Vlachas, M. Giannakou (Greece)
Application of a microbial fuel cell to treat municipal and industrial sewage for energy recovery
- P10. J. Lu, Y. Ji (China)
Formation of halogenated disinfection by-products in sulphate radical based oxidation processes
- P11. E. El-Bestawy, R. Kashmeri (Egypt)
Enhanced treatment of contaminated domestic wastewater using bacterial consortium biofilm
- P12. E. Kholoma, G. Renman, A. Renman (Sweden)
Fortification of sand filters - An alternative technique of enhancing wastewater treatment efficacy
- P13. S. Malamis, R. Klepetsani, C. Noutsopoulos, D. Mamais, A. Andreadakis, E. Katsou (Greece, UK)
Removal of phosphorus from secondary effluents and sludge reject water using chemically modified zeolite
- P14. Y. Sun, Q. Yin, B. Li, G. Wu (China)
Effect of nitrite on nitrous oxide generation and emission during denitrifying phosphorus removal
- P15. H. Chu, X. Sun, X. Zhou, Y. Zhang (China)
Extraction method of EPS from the bio-enhanced PAC mixed liquor for municipal wastewater treatment
- P16. Z. Shen, W. Zhang, Y. Zhang (China)
Nanoscale zero-valent iron supported on mesoporous silica: Characterization and reactivity for Ni(II) removal from aqueous solution
- P17. G. Tevi, M. Vasilescu, F. Grigore Rădulescu (Romania)
Decision making support tool for small scale water supply located in nitrate vulnerable zones
- P18. J.T. Guimarães, A.L.M. Souza, A. I.S. Brígida, D.B. Luiz, E.F.M. Mesquita (Brazil)
Quantification and characterization of effluents from seafood processing industry aiming reuse and water management: a pilot study
- P19. Y. Liu, Y. X. Chi (China)
Synthesis of SiO₂-Coated magnetic nanoparticles as a new adsorbent for the removal of nickel ion from aqueous solution
- P20. J. Tabatabaee Yazdi (Iran)
Floodwater Harvesting for Improving Dryland Agriculture
- P21. M. García- Martínez, I.D. Barcelo-Quintal, U.J. Lopez-Chuken, L.J. Osornio-Berthet, J.C. Beltrán-Rocha (Mexico)
Efficiency of wastewater treatment by a pilot lagoon system with screens and camber curves
- P22. S. Jaffar Abdulkhaliq, P. Padmavathiamma, M. Ahmed, H. Agrama (Oman)
Effect of sewage sludge compost in enhancing the growth of grasses in phytoremediation of diesel contaminated soil
- P23. V. Karayannis, K. Moustakas, A. Vatalis, A. Domopoulou (Greece)
A comprehensive overview of microwave-assisted oxidation of industrial wastewaters
- P24. D. Istenič, G. Bozic, C.A. Arias, T. Griessler Bulc (Slovenia)
Zero-discharge wastewater treatment system for biomass production
- P25. M.F. Ortiz-Sánchez, G. Cuevas-Rodríguez (Mexico)
Wastewater treatment plant suitable for a dwelling
- P26. P. Mueller, R. Mischitz, D. Hoellen, K.P. Sedlazeck, L.M. Krois, T. Olbrich (Austria)
Zero-valent iron for heavy metal recovery from wastewaters
- P27. L.A.O. Melgaço, B.O. Ferreira, J.C. Araújo, C.A.L. Chernicharo, C.R. Mota Filho (Brazil)
An integrated system for biogas generation and recovery of nutrients from food waste: a possible resources-oriented option for rural towns
- P28. C. Wendland, F. Jorritsma, A. Choitonbaeva (Germany, Netherlands, Kyrgyzstan)
Sustainable Sanitation and Energy for Improved Living Conditions in Rural Areas of Kyrgyzstan, Central Asia
- P29. A.K. Anggraini, A. Silva, S. Fuchs (Germany)
Slow sand filtration performance: a systematic investigation on the influence of Uniformity Coefficient (Cu)
- P30. I. A. B. Mariano, P. T. Vargas, R. C. Cavalcanti, F.J.C. Magalhães Filho (Brazil)
WTS' SILT incorporation in mortar production
- P31. A. O. Granja, P. M. Sanches, R. C. Cavalcanti, F.J.C. Magalhães Filho (Brazil)
Financial viability of the greywater reuse in single-family homes
- P32. H.S. Souza, M.A. Boncz, P.L. Paulo (Brazil)
Willingness to pay for, and economic feasibility of a household greywater treatment system
- P33. Y. Li, H.-B. Li (China)
A review of the fate of nitrogen in the subsurface wastewater infiltration system in treating secondary effluent
- P34. W. Zhou, Z. Huang, C. Sun, H. Zhao, Y. Zhang (China)
Enhanced phosphorus removal from wastewater by growing deep-sea bacteria combined with basic oxygen furnace slag
- P35. J. Zhang, Q. Yue, C. Xia, P. Zhao, B. Gao, H. Yu (China)
The study of Na₂SiO₃ as conditioner used to deep dewater the urban sewage dewatered sludge by filter press
- P36. M. Garrigó, I. Fernández, J. Dosta, J. Mata-Álvarez (Spain)
Energy valorisation of polyethylene glycol (PEG) rich industrial wastewater by OFMSW anaerobic co-digestion
- P37. L. Zeghadnia, S. Dairi, A. Guebaili, N. Rezqui, Y. Djebbar (Algeria)
Design method for high efficiency of flow in circular pipes
- P38. S. Hashemi, M. Han, T. Kim (Republic of Korea)
Optimizing fertilizing characteristics of stored human urine
- P39. P. Patil, O. Ghosh, H. Jeswani (India)
Sustainable industrial waste water management for an industrial development cooperation in Thane, Maharashtra

- P40. X. Wen, G. Fang (China)
Prediction of total nitrogen in Gucheng Lake using artificial neural networks combined with factor correlation analysis
- P41. G. Moussavi, S. Shokohian, K. Naddafi (Iran)
High-rate biodegradation of petroleum hydrocarbons in a H2O2-induced bioreactor using the peroxidase-mediated process
- P42. K. Plotěný, M. Došek, M. Holba (Czech Republic)
Combination of conventional and non-conventional technologies for wastewater treatment
- P43. A.-L. Schneider, S. Tisler, H. Schell, T. Matthee, B. Behrendt-Fryda, A. Tiehm (Germany)
Electrochemical oxidation of iodinated X-ray contrast media by boron-doped diamond electrodes
- P44. N. Yilmaz, M. Elhag, U. Yasar (Turkey, Saudi Arabia)
Consideration of phytoplankton diversity and water quality of Anamur (Dragon) Stream, Turkey
- P45. G. Mannina, M. Capodici, A. Cosenza, D. Di Trapani (Italy)
Nitrous oxide emissions from a moving bed membrane biofilm reactor: the effect of the sludge retention time
- P46. R. Zahid Gaur, B., S. Suthar (India, Greece, Israel)
Anaerobic co-digestion of duckweed (Lemna Gibba) and waste activated sludge
- P47. S. Wasielewski, C. Morandi, R. Minke, H. Steinmetz (Germany)
Ammonium recovery by ion exchange from effluents of anaerobic blackwater co-digestion and struvite precipitation reactors
- P48. A. Klančar, J. Trontelj, R. Roškar (Slovenia)
Development of multi-residue analysis of pharmaceuticals in water samples by stir-bar sorptive extraction using liquid chromatography-mass spectrometry
- P49. M. Manga, B. E. Evans, M. A. Camargo-Valero, N. J. Horan (UK, Colombia, Uganda)
Nitrogen evolution during co-composting of faecal sludge with chicken feathers and market waste
- P50. Y. Zhang, L. Yang, X. Zhou, Z. Shen (China)
Influence of operating parameters on ammonia nitrogen removal from micro-polluted water by electro-coagulation-flotation with aluminium electrodes
- P51 T.M. Massara, A. Guisasaola, E. Katsou, J.A. Baeza (UK, Spain)
Modelling of nitrous oxide emissions from an A2/O process treating municipal wastewater
- P52. E. Kaprara, K. Kalaitzidou, A.I. Zouboulis, M. Mitrakas (Greece)
Evaluation by continuous flow configuration of inorganic adsorbents qualified for Cr(VI) removal through batch experiments
- P53. F. Serena, M. Ostoich, C. Zacchello, L. Falletti, M. Zambon, L. Tomiatotaly (Italy)
The quality of discharges of public wastewater treatment plants and the Sludge Biotic Index for activated sludge: integrative assessment
- P54. A. Domopoulou, K. Moustakas, P. Kremezis, S. Stavridou, V. Karayannis (Greece)
Valorisation of industrial by-products as coagulants in wastewater treatment
- P55. Y. Liu, P. F. Dai, X. W. Li, Y. Zhu (China)
Synthesis and application of surface-modified NiFe nanoparticles as a new magnetic nano adsorbent for the removal of nickel ion from aqueous solution
- P56. A. Montazeri, K.A. Vaghefi, M.R. Mohebbi, S. Oktaie (Iran)
Protecting water resources by implementation water safety plans
- P57. P. Gikas, E. Ranieri, D. Sougioultzis, M. Farazaki, H. Marakas, G. Tchobanoglous (Greece, Italy, USA)
Alternative sewers for decentralized wastewater treatment systems: state of the art and application at Eretria town, Greece
- P58. E.H.W Leung (China)
Situational report on decentralized wastewater treatment for households in rural areas in Hong Kong
- P59. I. Yu, H. Kim, S. Jeong (Republic of Korea)
Analysis on natural disaster risk based on flood, snow and wind damages
- P60. S. Guida, F. Chazarenc (France)
Increasing phosphorus removal from wastewater using a new reactive material
- P61. D. M. Rani, S. Tiwari, A. Talati, B. Srinivasan (India)
A critical review of monitoring approaches in anaerobic and aerobic systems: Application to anaerobic system in India's largest dairy company
- P62. P. Gago-Ferrero, L. Ahrens, M. Gros, K. M. Blum, P. Haglund, G. Renman, P. L. Andersson, K. Wiberg (Sweden)
Evaluation of the efficiency of on-site sewage facilities in the removal of micropollutants and assessment of the impact of their effluents in the receiving aquatic ecosystem
- P63. A. Sotiropoulos, N. Kalogiannis, K. Moustakas, S. Vakalis, D. Malamis (Greece, Italy)
Qualitative and quantitative characteristics of wastewater derived from household bio-waste drying technique using the drum-drying method
- P64. YS. Vakalis, K. Moustakas, S. Malamis, A. Sotiropoulos, D. Malamis (Greece, Italy)
Assessing the removal of heavy metals in wastewater treatment plants by means of chemical exergy
- P65. Y. Gao, X.Z. Wang, J.X. Fu, Z. Zong, M. Q. Sun (China)
Microflocculation-ultrafiltration hybrid process for high-turbidity drinking water treatment of Dahuofang Reservoir
- P66. L. Lintzos, K. Chatzikonstantinou, N. Tzamtzis, S. Malamis (Greece)
Influence of the backwash cleaning water temperature on the membrane performance in a pilot SMBR unit
- P66. G. Pavlidis, V.A. Tsihrintzis, H. Karasali, D. Alexakis (Greece)
In-situ control of agrochemical pollution in combined tree-crop systems

Publication

Selected papers (from both oral & poster sessions) will be sent for publication after review in five collaborating journals:

Journal of Environmental Management
Water Science & Technology
Water Science & Technology: Water Supply
Water Practice & Technology
Desalination & Water Treatment



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PROGRAMME

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