



Vienna University of Technology



Institute for Water Quality, Resources and Waste Management

10th IWA Specialised Conference

Design, Operation and Economics of Large Wastewater Treatment Plants

9-13 September 2007
Vienna, Austria

Second Announcement
and Invitation to Register



Conference Secretariat

Austropa Interconvention

1010 Vienna, Austria
Friedrichstrasse 7

Tel.: +43/1/588 00-510
Fax: +43/1/588 00-520

austropa@interconvention.at



International
Water Association



WELCOME TO VIENNA

Vienna, the capital of Austria, has a prominent long history and a bright future as a cultural and economic centre in the middle of Europe. Together with Prague and Budapest, Vienna belongs to a triangle where western and eastern, northern and southern ways of living meet and result in a very specific lifestyle and atmosphere. Situated on both sides of the river Danube the city was also located at the crossing of important roads.

Just in the city centre you can see the old sewer system built during the Roman Empire in the first century AC, when Vienna was military camp. River Danube served as a natural borderline of this Empire towards the north while along the river there was always a strong exchange of culture, goods and ideas. About a millennium later Vienna started to become the capital of an Empire of European and even global size for some centuries. The most rapid developments in the city took place in the 19th century when Vienna became the capital of "classical" music with Mozart, Beethoven, Brahms, Bruckner, Schubert, Schönberg, Mahler and many other famous composers who lived and worked in Vienna. At the same time this was the time of famous dance music composers like Lanner and the Strauss dynasty.

During this period water supply by spring water from mountains at a distance of 100 to 200 km and the sewer infrastructure were built and the basic city planning scheme was implemented. In this century also the famous Ring architecture with all the famous buildings was erected filling the area of the city walls until mid of the 19th century: City hall, Parliament, state opera and theatre, the museums of fine arts, natural history and modern arts, the famous concert halls and many other prestigious buildings.

The City of Vienna has decided to give high priority to environmental protection and pollution abatement, to be on the forefront of urban infrastructure development: public transportation, water supply, waste water and waste disposal, air pollution abatement, forest protection, cultural heritage conservation, museums, parks and gardens, etc. Today city planning is favouring the development of new building areas with reasonable skyscrapers and modern facilities for congresses and exhibitions north of Danube River, where the IWA World Water Congress 2008 will take place, only about a 10 minutes ride with the underground from St. Stephan, the famous gothic cathedral in the centre of the city. Vienna is famous for having achieved an excellent compromise between the cultivation of our historic heritage and a cautious but ambitious adaptation to modern trends in science, technology arts and lifestyle. Vienna is characterised by a very safe human environment where you can really enjoy your life by walking, eating, drinking and observing, but you can also make optimal use of the extensive cultural life.

Vienna 2007-06-01

Helmut Kroiss

SCOPE OF THE CONFERENCE

Since the start in 1971 all nine of the conferences about Large Wastewater Treatment Plants (LWWTP) have been dedicated to cost effective solutions of practical problems in the design and operation of large wastewater treatment plants. They have been successfully conducted in the form of workshops following a very simple pattern: an equal amount of time was allotted for presenting the papers and for discussing them.. For the upcoming 10th conference it was decided to extend the conference with a 1 ½ day "**Utility Workshop**".

More than 40 oral presentations and 70 posters are expected to raise vital discussions and contacts.

Scientific Programme Committee

Prof. Harro Bode, Germany [Chairman]
Dr. Peter Balmér, Sweden
Dr. James Barnard, USA
Dr. Euiso Choi, Korea
Ir. Kees de Korte, The Netherlands
Prof. George Ekama, South Africa
Dr. Michel Gousailles, France
Prof. Willi Gujer, Switzerland
Prof. Mogens Henze, Denmark
Prof. Jürg Keller, Australia
Prof. Helmut Kroiss, Austria
Prof. Norbert Matsché, Austria
Prof. Saburo Matsui, Japan
Prof. Korneliusz Miksch, Poland
Dr. Denny S. Parker, USA
Prof. Johannes Pinnekamp, Germany
Prof. Karl-Heinz Rosenwinkel, Germany
Dr. Timothy Shea, USA
Prof. László Somlyódy, Hungary
Prof. Willhelm von der Emde, Austria
Prof. Baozhen Wang, People's Republic of China
Prof. Jiří Wanner, Czech Republic

Management Committee

Prof. Harro Bode, Germany
Dr. Arno Bäumer, Germany
Dr. Thomas Grünebaum, Germany
Prof. Norbert Jardin, Germany
Ir. Kees de Korte, The Netherlands
Prof. Teng Chye Khoo, Singapore
Prof. Helmut Kroiss, Austria
Prof. Norbert Matsché, Austria
Prof. Jan Oleskiewicz, Canada
Prof. Karl-Heinz Rosenwinkel, Germany
Prof. László Somlyódy, Hungary
Prof. Jiří Wanner, Czech Republic

Organising Committee

DI. Lydia Brooks, Austria
Irene Hager, Austria
DI. Franz Klager, Austria
DI. Alfred Leimer, Austria
Dr. Brigitte Nikolavcic, Austria
DI. Miklós Papp, Austria
DI. Péter Ruso, Austria
Prof. Karl Svardal, Austria

Publication

Conference Proceedings will be available. Selected papers will be published either in Water Science and Technology or in Water Practice & Technology.

Technical tour

A ½ day excursion to the main wastewater treatment plant of Vienna (4 million p.e., dry weather flow 680.000 m³/d) and to the sludge incineration plant will be held on Tuesday September 11, 2007. This recently extended plant is a great example of cost-effective design and operation of large nutrient removal plants.

Venue

The conference will be held in the "Freihaus" at the Vienna University of Technology (Wiedner Hauptstraße 8, 1040 Vienna), next to the old imperial city centre.

How to get to the conference

The Freihaus-building (Wiedner Hauptstraße 8-10) at the Vienna University of Technology is located in the city centre at the southern edge of the first district.

Arriving by plane

The international [Airport Vienna-Schwechat](#) is about 20 km out of the city centre.

Travelling by the **City Airport Train (CAT)**: departure every 30 min., travelling time 16 min. to "Wien-Mitte" (return ticket € 16,-, single ticket € 9,-) [CAT schedule](#) ,

The **local railway ("Schnellbahn") S7**: departure every 20 Minutes, travel time 30 min (single ticket € 3,-),

Or **taxi** (appr. € 25,-). The taxi stand is in front of the Arrival/Departure hall at the Vienna Airport.

Arriving by train/bus

You can get information about arrival and departure times by phoning +43 05-1717 or via internet at <http://www.oebb.at>.

Getting around in Vienna

Vienna has an excellent and safe public transport service. Find more information about tickets and plans for buses, trams and the underground on:

http://progs.wiennet.at/addedvalue/f4000_wienerlinien/f000_AVContent.asp?KID=221&HID=480

Network plan of Vienna's Public transport:

http://www.tuwien.ac.at/fileadmin/t/tuwien/downloads/vienna_public_transport.pdf

City map of Vienna:

<http://www.wien.gv.at/stadtplan/suche.asp?lang=en>

Online schedule:

http://efa.vor.at/wvb/index_en.htm

Climate in Vienna

On the website: http://www.aboutvienna.org/living_in_vienna/weather_in_vienna.htm you can find information about the climate in Vienna and more useful facts.

Accommodation

Details for comfortable and reasonable priced hotels can be found on the conference website:

<http://www.austropa-interconvention.at/congress/lwwtp07/hotel.asp>

To be sure to get the hotel of your choice we recommend to book your accommodation as soon as possible.

Registration Fees

IWA Member €540

Non IWA Member €640

Student* €200

Student Social Package €105

Accompanying Person Social Package €105

* *Student card or a certificate signed by the Head of Department has to be mailed or faxed to the Conference Secretariat.*

Cancellation policy

Modifications and cancellations must be notified in writing only.

Cancellation before August 10, 2007: 80% refund on the processed sum.

No refund after that date.

The Registration fee for IWA members and Non members includes:

Admission to all sessions and the "Utility Workshop", admission to the poster sessions, conference documents, coffee breaks, Meet & Greet, Opening Ceremony, technical tour, Gala Dinner, Closing Ceremony, "Gulaschausklang"

The Student registration fee includes:

Admission to all sessions and the "Utility Workshop", admission to the poster sessions, conference documents, coffee breaks, Opening Ceremony, technical tour, Closing Ceremony

The additional Student Social Package includes::

Meet & Greet, Gala Dinner, "Gulaschausklang"

The Accompanying person Social Package includes::

Meet & Greet, Opening Ceremony, Gala Dinner, Closing Ceremony, "Gulaschausklang"

Please find more information about the *registration* and the *social package* on:

<http://lwwtp07.tuwien.ac.at/registration.php>

<http://www.austropa-interconvention.at/congress/lwwtp07/>

TIME TABLE

Sunday 09.09.2007	15:00-19:00	Registration
	18:00-22:00	Meet and Greet Party

Monday 10.09.2007	09:00-09:30	Opening Ceremony
	09:30-11:00	Session 1: Case studies I
	11:00-11:30	Morning Break
	11:30-13:00	Session 2: Case studies II
	13:00-14:00	Lunch Break
	14:00-15:30	Session 3: Case studies III
	15:30-16:00	Afternoon Break (Authors of posters are present)
	16:00-17:30	Session 4: Aeration and mixing
17:30-18:30	IWA Specialist Group meeting	

Tuesday 11.09.2007	08:30-09:00	Keynote I: Sudhir Murthy
	09:00-10:30	Session 5: Nutrient removal I Workshop 1: Cost Management Tools
	10:30-11:00	Morning Break (Authors of posters are present)
	11:00-12:30	Session 6: Nutrient removal II Workshop 2: Human Resources Management
	12:30-13:30	Lunch Break
	13:30-17:30	Excursion to WWTP Vienna
	20:00-22:00	"Heurigen"

Wednesday 12.09.2007	08:30-09:00	Keynote II: Laszlo Somlyódy
	09:00-11:00	Session 7: Design and planning Workshop 3: Safety Management
	11:00-11:30	Morning Break (Deadline for poster voting)
	11:30-13:00	Session 8: Costs and economics Workshop 4: Public Relations & Cooperation with Authorities
	13:00-14:00	Lunch Break
	14:00-15:30	Final poster session, announcement and short presentation of winning posters
	15:30-16:00	Afternoon Break
	16:00-17:30	Session 9: Operating experiences I
20:00-24:00	Reception by the Mayor of Vienna / Gala Conference Dinner	

Thursday 13.09.2007	8:30-9:00	Keynote III: Georges Ekama
	9:00-10:30	Session 10: Modelling
	10:30-11:00	Morning Break
	11:00-13:00	Session 11: Settling and separation
	13:00-14:00	Lunch Break
	14:00-15:30	Session 12: Sludge Management
	15:30-16:00	Afternoon Break
	16:00-17:00	Session 13: Operating experiences II
	17:00-17:30	Closing Ceremony
17:30-19:00	"Gulaschausklang"	

SCIENTIFIC AND TECHNICAL PROGRAMME

Sunday, 9 September 2007

15:00	19:00	Registration
18:00	22:00	Meet and Greet

Monday, 10 September 2007

09:00	09:30	Opening Ceremony	
09:30	11:00	Session 1: Case studies I	Session Chair: Harro Bode
09:30	10:00	M. Papp (A)	Wastewater Treatment and Sludge Disposal in Vienna
10:00	10:30	J. Wanner, M. Kos, L. Novák (CZ)	Intensification of Prague Central WWTP after ten years of practical experiences with in-situ bioaugmentation nitrification method
10:30	11:00	J.W. Loiacono, C-F.H. Ho, N.V. Sierra, D. Jolis, D. Parker, F. Smith (USA)	Public Participation and Need For Sustainable Infrastructure Drive the San Francisco Wastewater System Master Plan
11:00	11:30	Coffee Break	
11:30	13:00	Session 2: Case studies II	Session Chair: Michel Gousailles
11:30	12:00	A.F. van Nieuwenhuijzen, M. Havekes, B.A. Reitsma, P. de Jong (NL)	Wastewater Treatment Plant Amsterdam West: New, Large, High-Tech and Sustainable
12:00	12:30	E. Choi, Z. Yun, K.S. Min (KOR)	The invisible BNR plant provides high quality effluent and recreational area for densely populated urban area
12:30	13:00	J.R. Campos, M.A.P. Reali, R. Rossetto, J. Sampaio (BR)	A wastewater treatment plant composed of UASB reactors, Activated sludge with DAF and UV disinfection, in series
13:00	14:00	Lunch Break	
14:00	15:30	Session 3: Case studies III	Session Chair: Timothy Shea
14:00	14:30	N. Jardin, L. Rath, A. Schönfeld, T. Grünebaum (D)	Cost-effective upgrading of a biological wastewater treatment plant by using lamella separators with bypass operation
14:30	15:00	G. Wandl, H. Schaar, M. Papp, K. Svardal (A)	The first two years of full scale operation of the two-stage Main Wastewater Treatment Plant of Vienna
15:00	15:30	H.K. Winkler, W. Widmann (A)	The Sulaiyiya Wastewater Treatment and Reclamation Project
15:30	16:00	Coffee Break	
16:00	17:30	Session 4: Aeration and mixing	Session Chair: Kees de Korte
16:00	16:20	M. Wagner, P. Loock, T. Guenkel (D)	Design and Operational Aspects of Modern Fine Bubble Aeration Systems
16:20	16:30	W. Frey (A)	The role of diffuser arrangement and mixing for efficiency optimisation of fine bubble aeration systems
16:30	17:00	S. Gillot, A. Héduit (F)	Prediction of alpha factor values for fine pore aeration systems
17:00	17:30	D. Rosso, L.E. Larson, M.K. Stenstrom (USA)	Aeration of large-scale municipal wastewater treatment plants: state of the art
17:30	18:30	Meeting of the IWA Specialist Group	Chair: Harro Bode

Tuesday, 11 September 2007			
08:30	09:00	Keynote I: Sudhir Murthy	The role of wastewater treatment plants for the nutrient management in the Chesapeake Bay
09:00	10:30	Session 5: Nutrient removal I	Session Chair: Norbert Matsché
09:00	09:30	K.-H. Rosenwinkel, M. Beier, L.-C. Phan, P. Hartwig (D)	Conventional and Advanced Technologies for Biological Nitrogen Removal in Europe
09:30	10:00	K.R. Pagilla, K. Czerwionka, M. Urgun-Demirtas, J. Makinia (USA)	Nitrogen Speciation in Wastewater Treatment Plant Influent and Effluents - the US and Polish Case Studies
10:00	10:30	B. Böhm (D)	Modifying an Existing Settlement Tank into an Activated Sludge Denitrification Reactor
09:00	10:30	Workshop 1: Cost Management Tools	Session Chair: Michael Beckereit
10:30	11:00	Coffee Break	
11:00	12:30	Session 6: Nutrient removal II	Session Chair: Harald Kainz
11:00	11:30	X. Liu, S. Wang, Y. Peng, Q. Yang, C. Peng (CN)	Achieving advanced nitrogen removal via nitrite with real-time control in a pilot-scale SBR
11:30	12:00	M. Swinarski, J. Makinia, K. Czerwionka, W. Fordonski (PL)	Improving Denitrification Efficiency at the "Wschod" WWTP in Gdansk (Poland) - Effects of Different Carbon Sources
12:00	12:30	S.M. Scherrenberg, R. Neef, H.W.H. Menkveld, J.H.J.M. van der Graaf (NL)	Dual media filtration competitive with continuous sand filtration for phosphorous and nitrogen removal
11:00	12:30	Workshop 2: Human Resources Management	Session Chair: Roelof Kruijze
12:30	13:30	Lunch Break	
13:30	17:30	Excursion to WWTP Vienna	
20:00	22:00	"Heurigen"	

Wednesday, 12 September 2007			
08:30	09:00	Keynote II: László Somlyódy	Economic aspects of municipal wastewater treatment in the Danube region
09:00	11:00	Session 7: Design and planning	Session Chair: Johannes Pinnekamp
09:00	09:30	D. Dominguez, B. Truffer, W. Gujer (CH)	WWTPs for the future - Assessing the required flexibility
09:30	10:00	S. Winkler, M. Gasser, W. Schättle, D. Kremmel, P. Kletzmayer, N. Matsché (A)	Upgrading of WWTPs for nutrient removal under optimal use of existing structures
10:00	10:30	L. Højbye, J. Clauson-Kaas, H. Wenzel, H.F. Larsen, B.N. Jacobsen, O. Dalgaard (DK)	Sustainability assessment of advanced wastewater treatment technologies
10:30	11:00	E.P. Jordão, I. Volschan Jr., P.A. Sobrinho (BR)	Secondary WWTP Preceded By UASB Reactors - An Excellent Brazilian Experience
09:00	11:00	Workshop 3: Safety Management	Session Chair: Miklos Papp

11:00	11:30	Coffee Break	
11:30	13:00	Session 8: Costs and economics	Session Chair: Norbert Jardin
11:30	12:00	S. Lindtner, H. Schaar, H. Kroiss (A)	Benchmarking of large municipal wastewater treatment plants > 100,000 PE in Austria
12:00	12:30	A. Kraft, F. Obenaus (D)	Energy management - A key factor of economic plant operation
12:30	13:00	T. Partaj, M. Papp, J. Weiss (A)	The Main Wastewater Treatment Plant of Vienna: Favourable Operation Conditions as Consequence out of Well Designed Tender Procedures
11:30	13:00	Workshop 4: Public Relations & Cooperation with Authorities	Session Chair: Scott Haskins
13:00	14:00	Lunch Break	
14:00	15:30	Final poster session & announcement and short presentation of winning posters	Session Chair: Harro Bode
15:30	16:00	Coffee Break	
16:00	17:30	Session 9: Operating experiences I	Session Chair: Teng Chye Khoo.
16:00	16:30	D. Braun, W. Gujer (CH)	Reactive tracers reveal hydraulic and control instabilities in full-scale activated sludge plant
16:30	17:00	S. Morling (S)	Plant performance of a Sequencing Batch Reactor in Poland, operated with high Chromium load, reaching advanced nutrient removal
17:00	17:30	B. Teichgräber, P. Jagemann (D)	Biological Nutrient Removal - Requirements and Reality in two case studies
20:00	24:00	Gala Conference Dinner / Vienna City Hall	

Thursday, 13 September 2007			
08:30	09:00	Keynote III: Georges Ekama	New developments in modelling wastewater treatment processes
09:00	10:30	Session 10: Modelling	Session Chair: Mogens Henze
09:00	09:30	K.A. Third, A.R. Shaw, L. Ng (AUS)	Application of the Good Modelling Practice Unified Protocol to a plant wide process model for Beenyp WWTP design upgrade
09:30	10:00	L. Koncsos, Z. Melicz, (H)	Use of a mathematical optimisation procedure for model calibration and enhancement of nitrogen removal in high-load systems
10:00	10:30	G. Sin, D.J.W. De Pauw, S. Weijers, P.A. Vanrolleghem (B)	Developing a framework for continuous use of models in daily management and operation of WWTPs: A life cycle approach
10:30	11:00	Coffee Break	
11:00	13:00	Session 11: Settling and separation	Session Chair: Thomas Grünebaum
11:00	11:30	J.L. Barnard, T.E. Kunetz, J.P. Sobanski (USA)	65-year old final clarifier performance rivals that of modern designs

11:30	12:00	M. Patziger, H. Kainz, M. Hunze, J. Józsa (A)	Analysing Sludge Balance in Activated Sludge Systems with a Novel Mass Transport Model
12:00	12:15	K. Ramalingam, J. Fillos, S. Xanthos, M. Gong, A. Deur, K. Beckmann (USA)	Development and Validation of a 3-Dimensional Computational Fluid Dynamics(CFD) Model for Rectangular Settling Tanks in New York City Water Pollution Control Plants
12:15	12:30	P.G. Piekema, J. Krijgsman (NL)	Optimisation of final clarifiers using the dynamic model FAST2D
12:30	13:00	D.S. Parker, R.P. Merlo, J.A. Jimenez, E.J. Wahlberg (USA)	Analyzing Wet Weather Flow Management Using State of the Art Tools
13:00	14:00	Lunch Break	
14:00	15:30	Session 12: Sludge Management	Session Chair: Peter Balmér
14:00	14:30	V. Parravicini, K. Svardal, H. Kroiss (A)	Post-aeration of anaerobically digested sewage sludge for advanced COD and nitrogen removal: results and cost-benefit analysis at large-scale
14:30	15:00	G. Bowden, B. Bodniewicz, B. Stinson, A. Deur, K. Beckmann (USA)	Optimization and Performance of a Side-Stream Centrate/Rejection Water Treatment System Integrated with a Secondary Step-Feed Process
15:00	15:30	D.J.I. Gustavsson, I. Dimitrova, U. Nyberg, J. la Cour Jansen (S)	Fast upstart of a full-scale SBR for treatment of sludge digester liquor and operation with stable nitrite accumulation
15:30	16:00	Coffee Break	
16:00	17:00	Session 13: Operating experiences II	Session Chair: Helmut Kroiss
16:00	16:30	V. Erbe, G. Kolisch, F. Schmidt (D)	A Decade of Kohlfurth WWTP Upgrade under Operation - Highlights and Drawbacks
16:30	17:00	G.T. Daigger, A. Hodgkinson, D. Evans (USA)	A Sustainable Near-Potable Quality Water Reclamation Plant for Municipal and Industrial Wastewater
17:00	17:30	Closing Ceremony	
17:30	19:00	"Gulaschausklang"	

Reserve papers

A. Jobbagy, G. Tardy, G. Palkó, A. Benákova, O. Krhutková, J. Wanner (Hungary)	Savings with upgraded performance through improved activated sludge denitrification in the Combined Activated Sludge- Biofilter System of the Southpest Wastewater Treatment Plant
D. Brocard, M. Garcia, A. Waratuke, T. Kunetz, J. Sobanski, T. Weber (USA)	Physical Model Study of Chicago's New Calumet Influent Pumping Station
K. Jonsson, A. Pottier, I. Dimitrova, U. Nyberg (Sweden)	Utilising laboratory experiments as a first step to introduce primary sludge hydrolysis in full-scale
I. Keresztényi, G. Kicsi, C. Dobolyi, G. Isaák (Hungary)	Enhanced biological treatment of a residual oil processing plant wastewater by a membrane-bioreactor for effluent quality improvement in a Hungarian refinery
D. Di Trapani, G. Mannina, M. Torregrossa, G. Viviani (Italy)	Hybrid moving bed biofilm reactors: a pilot plant experiment
T. Palmgren, A.M. Sundin (Sweden)	Running an efficient Wastewater Treatment plant in Sweden
N. Schwarzenbeck, E. Bomball, W. Pfeiffer (Germany)	Can a wastewater treatment plant be a powerplant? - a case study

LIST OF POSTERS

Y. Ubukata, A. Ibe (Japan)	Amino acid uptake and phosphate release by anaerobic/aerobic activated sludge used in treating municipal sewage
J. Sandino, J. Sizcka, T. Sigmund, R. Onderko (USA)	Bio Chemically Enhanced Clarification for the Management of Wet-Weather Flows in Large WWTPs
Y. Cao, C.M. Ang, K.S. Raajeevan, K.E. Ooi, Y.L. Wah (Singapore)	Biological Conversion and Mass Balance in a Coupled UASB -Activated Sludge Process Treating Municipal Sewage in Tropic Climate
M.K. Nielsen, A. Khan, M. Däverhög, A. Fransson (Denmark)	Biological Nutrient Removal by a combining plugflow and fully mixed reactors in Dynamic Plugflow, the DP-process
D. von Felde (Germany)	Cofermentation in Wastewater Treatment Plants
I.A.C.P. Espírito Santo, E.M.G.P. Fernandes, M.M. Araújo, E.C. Ferreira (Portugal)	Cost Minimization of a WWTP Using an Augmented Lagrangian Pattern Search Based Solver
I. Takács, P. Dold, M.S. Murthy, O'Shaughnessy, N. Shirodkar (Canada)	Denitrification Kinetics Using Methanol
Ying-zi Lin, Yin Jun, Zhao Ke, Zhang Li-guo, Liu Zhi-sheng (China)	Design and operation of A/O process in Changchun municipal wastewater treatment plant
S.L. Kuang, C.H. Guo, V. Ivanov (Singapore)	Design of BiolronTech Process for Phosphorous Removal from Return Liquor of Municipal Wastewater Treatment Plant
A. Kumar, R. Bhargava, P. Kumar (India)	Design of Multistage Activated Sludge-Biofilm Reactors
C.A. Zaror, C. Segura, H. Mansilla. M.A. Mondaca, P. González (Chile)	Detoxification of Waste Water Contaminated with Imidacloprid using Homogeneous and Heterogeneous Photo-Fenton Processes
T. G. Shea, P. Burrowes (USA)	Discretionary versus Non-Discretionary Wastewater Treatment Projects - What's Being Left Behind?
Mi Hwa Kim, Tae-Joo Park (Korea)	Economic Benefits by Implementing a Fixed-Biofilm BNR Process for Retrofitting the Existed Municipal Wastewater Treatment Plants in Korea
P. Zima, J. Makinia, M. Swinarski, K. Czerwionka (Poland)	Effects of Dispersion on Predicting Longitudinal Concentration Profiles in Actual Flow Activated Sludge Reactors
J. Mikosz, Z. Mucha, S.M. Rybicki (Poland)	Evaluating the performance of aeration system with computer simulation: a case study
G. Insel, G. Sin, D.S. Lee, D.J.W. De Pauw, S. Weijers, P.A. Vanrolleghem (Turkey)	Evaluation of prediction performance of ASM2d for an intermittently aerated carousel type EBPR plant after three years its calibration
K. Press-Kristensen, E. Lindblom, J.E. Schmidt, M. Henze (Denmark)	Examining the biodegradation of endocrine disrupting bisphenol A and nonylphenol in WWTPs
A.G.N. van Bentem, P.F.T. Schyns, H.F. van der Roest (Netherlands)	Full-scale experiences at the Varsseveld MBR
G. Langergraber, J. Alex, N. Weissenbacher, D. Woerner, M. Ahnert, T. Frehmann, N. Halft, I. Hobus, M. Plattes, V. Spering, S. Winkler (Austria)	Generation of diurnal variation for influent data for dynamic simulation
B. Mrowiec, J. Suschka (Poland)	Generation of Aromatic Hydrocarbons (BTX's) in Anaerobic Processes and the Impact on Treated Sewage Quality
M. Ahnert, F. Blumensaat, G. Langergraber, J. Alex, D. Woerner, T. Frehmann, N. Halft, I. Hobus, M. Plattes, V. Spering, S. Winkler (Germany)	Goodness-of-fit measures for numerical modelling in urban water management - a review to support practical applications

M.T. Garrett, jr. (USA)	How to Avoid a Solids Washout in an Activated Sludge Plant
E. Saracevic, F. Bertrán de Lis, N. Matsché (Austria)	Hydrogen sulfide in pressure sewers - Evaluation of combat strategies
M. Huhtamäki, D. Sen (Finland)	IFAS Process for Nitrogen Removal. Practical Experiences and Guidelines for Design, Modelling and Operation for Treating a Mix of Municipal and Industrial Wastewaters
J. Ribes, J. Serralta, A. Seco, J. Ferrer, R. Lloret, I. Bernácer (Spain)	Implementation of a supervisory fuzzy logic based control system in the Denia WWTP
A. Stare, D. Vrečko, D. Vrančič, N. Hvala, B. Brajer Humar (Slovenia)	Improvement of effluent total nitrogen concentration by control of nitrate recirculation flow
D. Jolis, J. Loiacono (USA)	Integrated Strategies For Foam-Free Operation At Two High-Purity Oxygen Treatment Plants In San Francisco, California, USA
Kurt Ingerle (Austria)	Large Biocos Wastewater Treatment Plants
O. Jamjun, R. Dring, T. Conway, G. Shimp, K. Pagilla (USA)	Master planning to improve operational performance at the Stickney water reclamation plant
A. Schmid (Germany)	Mechanical Aeration System by "Supercavitation"
P. Phothisilangka, M.A. Schoen, B. Wett (Austria)	Mechanisms and impacts of heat pretreatment of sewage sludge for increased biogas production
J. Hulsbeek, J. Kruit, M. Hunze, C. Uijterlinde (Netherlands)	Mixing and propulsion in circular activated sludge reactors can be improved!
D. Petruzzelli, G. Boghetich, M. Petrella, A. Petrella, E. Ranieri, V. Petruzzelli (Italy)	Modeling carbon and nitrogen removal at a large wastewater treatment plant
R. Rustum, A.J. Adeloye (UK)	Modelling Activated Sludge Process Using Adaptive Network- Based Fuzzy Inference System (ANFIS)
V. Spering, N. Schlösser, S. Märker, K.-H. Rosenwinkel (Germany)	Modelling biocinetics of Microthrix Parvicella as module for the ASM3
H. Moral, A. Aksoy, C.F. Gokcay (Turkey)	Modeling the Activated Sludge Process Using Artificial Neural Networks: Ankara Central Wastewater Plant Example
A. Thompson, D. Burt, C. Syred, L. Stokes (UK)	Modelling the settlement of non-flocculent particles to improve tank design
G. Mininni, C. Di Iaconi, G. Mascolo, A. Pollice (Italy)	New perspectives for up-grading wastewater treatment plants to meet the standards of Water Framework Directive and Directives on wastes
M. Urgun-Demirtas, K.R. Pagilla, T.E. Kunez, J.P. Sobanski, K.P. Law (USA)	Nutrient removal process selection for planning and design of large wastewater treatment plant upgrade needs
G. Carletti, F. Fatone, D. Bolzonella, F. Cecchi (Italy)	Occurrence and fate of heavy metals in large wastewater treatment plants treating municipal and industrial wastewaters
F. Michelet, T.F. Chan, F. Rogalla (UK)	Optimising the Solids and Energy Balance of Biofilm Reactors
O. Caliskaner, G. Tchobanoglous (USA)	Optimization of Compressible Medium Filter for Secondary Effluent Filtration
J. Alex, M. Wichern, V. Spering, N. Half, M. Ahnert, T. Frehmann, I. Hobus, G. Langergraber, M. Plattes, S. Winkler, D. Woerner (Germany)	A method to use dynamic simulation in compliance to stationary design rules to refine WWTP planning
R. Nowak (Austria)	Real-time Control Of Vienna's Sewer System
C. Sahlmann, J.A. Libra, R. Gnirss (Germany)	Reducing Aeration Costs using a Control Strategy Based on Nitrification Rates
J. Pedersen, H.A.R. Thomsen, B. Mogensen, Bo N. Jacobsen, T. Guildal (Denmark)	Reducing costs and increasing hydraulic capacity by means of advanced control and ATS (Aeration Tank Settling)

L. Rodríguez, J. Villaseñor, F.J. Fernández (Spain)	Reduction of aeration costs by tuning a multipoint on/off controller
A. Mattsson, B.-M. Wilén, L. Björnsdotter, D. Lumley, P. Balmér (Sweden)	Saving external carbon source for post-denitrification by deoxygenation of trickling filter effluent
S.M. Rybicki, M. Cimochoicz-Rybicka, J. Mikosz (Poland)	Selected impact of enhanced phosphorus removal on wastewater sludge processing
L. Plonka, K. Miksch (Poland)	Short-term wastewater flow prediction by means of artificial neural network for better WWTP control
B. Petrik, J. Heywood (USA)	The Mangere WTP UV Disinfection Facility, Auckland New Zealand - Implementation of a World-Class Installation
G. Demoulin, K. Wutscher (Austria)	The World's Largest SBR in Malaysia
G.V. Crawford, S. Blair, R. Lewis (Canada)	Three Years of Operation of Large Membrane Bioreactors at Traverse City
P.F.F. Cavalcanti, Úrsula d. P. Medeiros, A. van Haandel (Brazil)	Use of Repirometry for the Determination of Nitrification Kinetics
IC Brink, MC Wentzel, GA Ekama (South Africa)	Using Stoichiometry to Build a Plant Wide Mass Balance Based Steady State WWTP Model
R. Kjellstrand, A. Mattsson (Sweden)	Utilizing the full Volume of a Denitrifying Activated Sludge Tank by Understanding Hydraulic Behaviour
S.M. Rybicki, E. Plaza (Poland)	Wastewater treatment in Poland - present situation and trends
T. Janus, D. Burt, A. Taylor, V. Glancy, N. Bourke (UK)	Application of CFD and dynamic process simulation for retrofitting of a 800,000 PE Trickling Filter WwTP
A. van Haandel, P.F.F. Cavalcanti, U.T.P. Medeiros (Brazil)	Optimization of the DO Concentration in Activated Sludge Systems Treating Petrochemical Effluents.
G.P. Villioti, N. Tzouvaras, G. Stefanakou (Greece)	Psyttailia Wastewater Treatment Plant: Wastewater primary treatment assessment over a ten year long period
R.J. Santos, A.A. Martins (Portugal)	Analysis of Mixing Influence in Activated Sludge Simulation
B. Kiss, V. Bakos, A. Szabó, A. Jobbágy (Hungary)	Comparative experimental studies for upgrading the Northpest Wastewater Plant
Mi-Hwa Kim, Ha-Jin Kim, So-Jung Park, Young-Gi Kim, Tae-Joo Park (Korea)	Evaluation of Optimum Conditions on Physiochemical Preliminary Treatment of Korean Foodwaste for Co-Digestion with Organic Wastes
Z. Kazmierczak, L. Plonka, J. Surmacz-Gorska (Poland)	Wastewater Composition and Flow Rate Changes in Years 2000 - 2005 as a Factor Influencing WWTPs' Performance in the Wielkopolska Region
G. Mannina, G. Viviani	Upgrading of an existing WWTP with Hybrid Moving Bed Biofilm Reactor Systems

Conference Office

All correspondence related to organizational matters should be directed to

Lydia Brooks
Conference Manager
Institute for Water Quality
Vienna University of Technology
Karlsplatz 13/226

1040 Vienna, Austria
Tel.: +43 1 58801 22612
Fax: +43 1 58801 22699

lwtp07@iwag.tuwien.ac.at

<http://LWWTP07.tuwien.ac.at>

Enquiries related to registration, hotels and social packages should be directed to

Heike Faustmann
Conference Secretary
Austropa Interconvention
Verkehrsbuero-Ruefa Reisen GmbH
Friedrichstraße 7

1040 Vienna, Austria
Tel.: +43/1/588 00-534
Fax: +43/1/588 00-520

heike.faustmann@interconvention.at

<http://www.austropa-interconvention.at>