14th IWA Specialized Conference on the Design, Operation and Economics of Large Wastewater Treatment Plants

8-12 September 2024

HUNGARY
Budapest
Mercure Budapest Korona Hotel

1st announcement &
Call for Paper
On behalf of the International Water Association (IWA) and its Specialist Group on Design, Operation and Costs of Large Wastewater Treatment Plants, it is our pleasure to invite you to join us for the IWA Specialised Conference “Design, Operation and Economics of Large Wastewater Treatment Plants”.

The conferences on Large Wastewater Treatment Plants (LWWTP) are the most traditional specialised conferences organized by IWA specialist groups. The first conference (at that time called “workshop”) was held in Vienna and then was repeated in four-year periods in Vienna and since 1987 also in Budapest and Prague. This conference is the 14th conference in the series. The last conferences of the specialist group were held in Budapest (2011), Prague (2015) and Vienna (2020 postponed due to COVID-19). The conference will now come back to Budapest (2024) during a perfect time of the year.

The conference will focus on all aspects of the design and operation of large wastewater treatment plants including economic topics. It will also discuss research and technology for nutrient removal and recovery approaches. It will bring together operators, designers and consultants on one side with researchers, university teachers, life cycle analysis (LCA) specialists, developers, technology and equipment providers on the other side.

Special emphasis will be given to active participation of young water professionals. The conference will provide a forum for ideas and opinion exchange and for sharing practical experience spanning the whole range from design and operation of large wastewater treatment plants to concepts of wastewater management in “Cities of the Future”.

The scientific programme will be accompanied by a poster session. The poster session will provide a lively forum for discussion and idea exchange between conference participants and poster authors.

We cordially invite you to join us for this conference and are looking forward to an inspiring event.

**CONFERENCE CHAIRS**

**Norbert Jardin**
Chairman of the IWA Specialist Group on the Design, Operation and Costs of Large Wastewater Treatment Plants
CEO, Ruhrverband; Honorary Professor, Darmstadt University of Technology, Germany

**Miklós Patziger**
Secretary of the IWA Specialist Group on the Design, Operation and Costs of Large Wastewater Treatment Plants
Head of the Department of Sanitary and Environmental Engineering, Budapest University of Technology and Economics, Hungary
INVITATION TO THE CONFERENCE

BACKGROUND

The conferences on Large Wastewater Treatment Plants (LWWTP) are the most traditional specialised conferences organized by IWA specialist groups. The first conference (at that time called “workshop”) was held in Vienna and repeated in four-year periods in Vienna and since 1987 also in Budapest and Prague. The conference has always been a good place for meeting with leading experts in the field from Europe, USA and Canada, Australia, South Africa, Latin America, South-East Asia and from many other parts of the world.

The papers submitted for presentation at the conference are evaluated by the conference Scientific Committee (SC). The SC of the LWWTP conference is a well-established body of internationally recognized specialists. For the conference in 2024 new professionals were added to the committee, which also helps to broaden the expertise. The main task is to guarantee that all accepted papers for both, oral and poster presentations will meet the high scientific and technical standards, so typical of this traditional series of conferences. The final structure of the programme will be decided based on the reviews from the SC by the conference chairs and the programme committee assisted by a group of young water professionals. The Local Organizing Committee is based on volunteers from Hungary.

SCOPE OF THE CONFERENCE

All the conferences on Large Wastewater Treatment Plants (LWWTP) within the last 50 years have been dedicated to the cost-effective solution of practical issues in the design and operation of large wastewater treatment plants. They have been successfully conducted in the form of workshops. An equal amount of time was allotted for presenting the papers and for discussing them together with the issues particularly interesting for large works. This workshop character created a unique and open atmosphere in which experts from all parts of the globe started to become a family. Although, times have changed since the start, we will continue with this tradition. Apart from the oral presentation stream we will prepare for the conference participants small workshops on current topics of large wastewater treatment plants.

The scientific programme is accompanied by a poster session. The poster session is always a suitable forum for the discussion and idea exchange of the conference participants with poster authors. To encourage young experts to participate in the poster session, the management committee will select and name the best poster of the upcoming conference. The winner of this contest will be announced at the conference closing ceremony.

The conference will start traditionally on Sunday evening with registration and the “Meet and Greet”. During the conference evenings we are planning social activities like a “poster party” with the discussion around the exhibited posters and a conference gala dinner on Tuesday evening. The scientific programme and the workshops are scheduled for three days. On the fourth day there will be an optional technical tour.
SUBMISSION & DATES

ABSTRACT SUBMISSION

Authors are invited to submit an abstract according to the outline on the conference website before January, 31st 2024. The procedure as well as template for submission is available on the official conference website: www.lwwtp2024.org

All submissions should be original and not been previously accepted for publication in a journal. Authors whose abstracts are selected will be invited to give an oral presentations or a poster presentation at the conference. The authors will be notified of acceptance by 5th April 2024 and full papers are encouraged to be submitted by 27th May 2024.

PAPER SELECTION AND PUBLICATION - SCI Journal

After the conference, full papers will be further reviewed and recommended for publication in IWA Publishing Journals:
- Water Science and Technology
- Water Practice and Technology

KEY DATES

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| First announcement and call for abstracts | Deadline for abstract submission | Notification of successful authors | END of Early Bird registration | Deadline for full paper submission

EXTENDED TO 31 JAN 2024

CONFERENCE TOPICS

The conference covers all relevant topics of IWAs Specialist Group on Design, Operation and Costs of Large Wastewater Treatment Plants.

To find proper solutions for problems related to design, operation and economics of large wastewater treatment plants is a task of steadily growing importance. While at the beginning of the 20th century only less than 15 % of the total population on the Globe lived in the towns, the estimates for 2050 predict about two thirds of all people living in the urban areas. Therefore, the wastewater treatment in large treatment plants is an inseparable part of water management of cities of the future. The operation of LWWTPs is more and more considered as a source of making valuables of the wastewater available for other purposes, e.g. water, energy or nutrients. Our traditional conference will also reflect this change in the paradigm in the topics discussed in Budapest.
1. Design and operation
   • wastewater treatment in large cities and sensitive catchment areas
   • selection of cost-effective solutions
   • strategies for achieving low effluent nutrient level
   • appropriate technologies for developing countries
   • successful case studies
   • CFD modelling
   • control of activated sludge separation properties
   • instrumentation, control & automation
   • emission of N2O and other greenhouse gases

2. Management of wastewater services
   • asset management and strategic planning
   • benchmarking
   • management, education and training
   • regulation and governance

3. Sludge handling
   • modern approaches to wastewater sludge processing
   • activated sludge separation
   • effect of reject water on wastewater treatment line
   • treatment of sludge dewatering effluent (SDE)
   • optimized use of energy from sludge
   • energy recovery
   • sewage sludge desintegration

4. Cost and energy optimization
   • construction and investment
   • cost and energy effective operation

5. Innovative wastewater treatment technologies
   • mixing and aeration systems
   • use of membranes in wastewater treatment
   • removal of specific organic compounds (endocrine disruptors, micropollutants etc.)
   • nutrient removal and recovery
   • intensification of treatment (granular sludge, attached growth, hybrid systems)
   • short cut nitrogen removal in mainstream

6. Large WWTP in “Cities of the Future”
   • large WWTPs as basis for the future growth of cities
   • water reuse
The wastewater treatment plants of Budapest

The official language of the conference will be English. There will be oral and poster presentations, with pre-printed abstracts of conference papers.

Sun. 08-09  Welcome reception and registration
Mon. 09-09  Scientific programme and poster reception
Tue. 10-09  Scientific programme and Gala Dinner
Wed. 11-09  Scientific programme and Closing ceremony
Thu. 12-09  Technical tour

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CONFERENCE COMMITTEES

CONFERENCE CHAIRS
Norbert Jardin, Germany, Chair
Miklos Patziger, Hungary, Secretary

SCIENTIFIC COMMITTEE
Norbert Jardin, Germany (Chair)
Miklos Patziger, Hungary (Secretary)
Janelcy Alferes Castano, Belgium
Lisa Bross, Germany
Glen Daigger, USA
Andreas Giesen, The Netherlands
Xia Huang, China
Jose Jimenez, USA
Andrea Jobbagy, Hungary
Harald Kainz, Austria
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Helmut Kroiss, Austria
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Jiri Wanner, Czech Republic

YWP members:
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Larissa Grass, Germany
Anna Mirkó, Hungary
Juliane Thamm, Germany
Laura Varga, Hungary

PROGRAMME COMMITEE
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