

MODELLING ACTIVATED SLUDGE PLANTS

***Organised by IWA Task Group on Good Modelling Practice
23-24 May 2017, Budapest, Hungary***

Pre-conference training to the 9th IWA Eastern European Young Water Professionals Conference (24-27 May 2017, Budapest, Hungary)

How to use Activated Sludge Models in Practice?

There is an ample need for hands on practice of mathematical modelling of Activated Sludge plants.

The one and half day (14 hours) modelling course provides detailed instruction on mathematical models, their structure and use in practice such as design, operation and control in activated sludge plants, and ample hands-on opportunity to use these models in a class-room setting. The learner will gain an understanding of structure of the IWA Activated Sludge Models (ASMs) and get a hands-on opportunity to use these models.

Target Audience

Young Water Professionals (<35 years) interested in modelling wastewater treatment

- Students and PhD students,
- Consultants,
- Plant managers or operators,
- Water boards and
- Academics

Registration and participation

This training comes at extra cost and is separately accessible to non-delegates of the conference also. Registration fee* of the modelling course:

Low-income countries

IWA member: 75 EUR

Non IWA member: 150 EUR

High-income countries

IWA member: 125 EUR

Non IWA member: 200 EUR

*The fee includes morning coffee/tea (23th morning and afternoon and 24th morning), and materials. (Lunch is not included but it will be available in the Campus area.)

Technical: Modelling course will take place at Budapest University of Technology and Economics (directly next to the venue of the conference). **The modelling course is limited to a participation of max. 30 persons. Participants are requested to bring their laptops.**

For details on registration please visit <http://iwa-ywp.eu/important-information/>

If you have further questions about the content of the training, please contact Günter Langergraber at guenter.langergraber@boku.ac.at

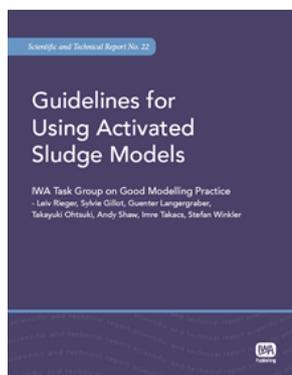
Supported by



Learning objectives

- Understanding principles of mathematical models for wastewater treatment plants
- Understanding of structure of the IWA Activated Sludge Models (ASMs) and their use in practice
- Understanding the requirements and needs for performing a simulation study for AS plants
- Understanding the steps needed to use a simulator for building, running and calibrating a model for a AS plant

Content



The content of the training is based on the work of the GMP TG, i.e. the IWA Scientific and Technical Report (STR) No.22 on "Guidelines for Using Activated Sludge Models" (<http://www.iwapublishing.com/books/9781843391746/guidelines-using-activated-sludge-models>) released in 2012. Participants of the course will have opportunity to purchase the STR at a special rate.

The goal of the GMP TG was to set up an internationally accepted framework to deal with the ASM type models in practice. This framework makes modelling more straightforward and systematic to use especially for practitioners and consultants. Additionally, it helps to define quality levels for simulation results and provides a procedure to assess this quality and assists in the proper use of the models. The framework describes a methodology for goal-oriented application of activated sludge models demonstrated by means of a concise guideline about the procedure of a simulation study and some illustrative case studies. The case studies give examples for the required data quality and quantity and the effort for calibration/validation with respect to a defined goal.

Trainers



Günter Langergraber is a senior scientist at the Institute for Sanitary Engineering and Water Pollution Control at the University of Natural Resources and Life Sciences, Vienna, Austria (BOKU University). He is IWA Fellow and active in several IWA Specialist Groups and Task Groups including the IWA GMP TG, and co-author of the GMP STR. His main research interests are sustainable resources-oriented sanitation systems, treatment wetlands and numerical modelling.



Leiv Rieger, CEO of inCTRL Solutions Inc., specializes in monitoring, controlling, and modelling of biological wastewater treatment processes. Leiv is chairman of the IWA Task Group on "Good Modelling Practice - Guidelines for use of Activated Sludge Models", co-author of the GMP STR and elected member of Management Committees of several IWA Specialist Groups.



Imre Takács, CEO of Dynamita, has extensive experience in biological and chemical nutrient removal, biokinetic and equilibrium modelling, and phase separation. Imre started and chaired the Modelling Expert Group of the Americas (MEGA), a sub-committee of the Water Environment Federation (WEF) until WEFTEC.10. He is member of IWA GMP TG and co-author of the GMP STR.

Key Dates

20th February 2017 - Modelling course registration opens

1st April 2017 - Modelling course registration closes

23th (morning) - 24th (lunchtime) May 2017 -

GMP Modelling Course

1st Day: 8:30—18:30

2nd Day: 8:30—12:30