

Modelling Activated Sludge Plants

organised by the Good Modelling Practices Task Group

5+6 November 2017

Pre-conference training to
the IWA NRR-LWWTP2017

Chongqing, China

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 two day 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. The modelling course is limited to a participation of max 25-30 persons, related to the number of computers available in the class room.

The following audiences interested in modelling wastewater treatment

- Students and Ph.D. students,
- Consultants,
- Plant managers or operators,
- Water boards and
- Academics

Registration:

This training comes at extra cost and is separately accessible to non-delegates of the congress also.

Delegate category Training fee*

Low-income countries + students

- IWA member 750RMB
- Non IWA member 1100RMB

High-income countries

- IWA member 1850RMB
- Non IWA member 2200RMB

*The Fee includes morning coffee/ tea, lunch and materials. Participants are requested to bring their laptops.

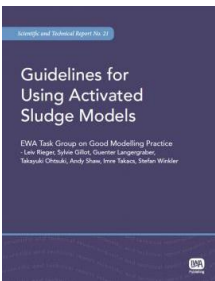
For details on registration please visit <http://www.nrr-lwwtp2017.com/>

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

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.

Key Dates

15th September 2017 - Modelling Course registration **CLOSES**

5th – 6th November 2017 - GMP Modelling Course (8:30 - 17:30)

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