

Workshop on Activated Sludge Modelling and Benchmarking

13 September 2006
Beijing, PR China

Organised by the
IWA Task Group on
**"Good Modelling Practice - Guidelines for Use of Activated Sludge Models in
Practice"**

in cooperation with the
IWA Task Group on
"Benchmarking of Control Strategies for wastewater treatment plants"


Presenter contact information

Dr. Guenter Langergraber

BOKU - University of Natural Resources and Applied Life Sciences, Vienna
Department of Water, Atmosphere and Environment
Institute of Sanitary Engineering and Water Pollution Control

Muthgasse 18, A-1190 Vienna, Austria
Tel.: +43 (0)1 36006-5814, Fax: +43 (0)1 368 99 49
Email: guenter.langergraber@boku.ac.at
<http://www.wau.boku.ac.at/sig.html>




University of Natural Resources and
Applied Life Sciences, Vienna
Department of
Water, Atmosphere, and Environment



Workshop on

Current Developments on the Application of Mathematical Models for Wastewater Treatment Plants –

Good Modelling Practice and Benchmarking of Control Strategies

Introduction

- follow-up event of the workshop on "*Guidelines for the Application of Wastewater Treatment Plant Models*" that was held at the 4th IWA WWC on 21 September 2004 in Marrakech, Morocco.
- The Marrakech workshop showed that a common framework is needed to provide sufficient information about the use of activated sludge modelling and to improve the transfer of knowledge between academia and practice.

Introduction

- new IWA Task Group on "*Good Modelling Practice – Guidelines for Use of Activated Sludge Models*" (GMP TG)
- The main goal of this TG is to develop a concise framework for activated sludge modelling studies.
- This framework will be focussed towards practitioners and consultants.

Introduction

- IWA Task Group on "*Benchmarking of Control Strategies for Wastewater Treatment Plants*" (BSM TG)
- follow-up initiative of the work on the "simulation benchmark"
- initiated in the mid 90s by the ICA Specialist Group in cooperation with the EU COST Action 682
- development of a "benchmark protocol" called the *Benchmark Simulation Model no. 1 (BSM1)* unbiased evaluation of activated sludge control strategies

Program overview (1/2)

14:30-16:00 Workshop Part 1

14:30-14.45 Welcome address and introduction

14.45-16:00 Part 1: Good Modelling Practice

- **Leiv Rieger**, Canada
Introduction of the IWA Good Modelling Practice Task Group
- **Imre Takács**, Canada
Activated sludge modelling in practice.
- **Sylvie Gillot**, France
From existing guidelines to a unified protocol
- **Discussion** (moderated by **Gustaf Olsson**, Sweden)

16:00-16:30 Afternoon tea

Program overview (2/2)

16:30-18:00 Workshop Part 2

16:30-17:45 Benchmarking of Control Strategies for WWTPs

- **Ulf Jeppsson**, Sweden
The IWA BSM TG – the quest for objective control performance evaluation.
- **Krist V. Gernaey**, Denmark
Realistic model-based influent wastewater generation – essential for objective benchmarking of control strategies.
- **Ingmar Nopens**, Belgium
Plant-wide modelling and simulation – the importance of model interfaces
- **Marie-Noelle Pons**, France
Dynamic modelling of sensor and actuator behaviour
- **Discussion** (moderated by **Gustaf Olsson**, Sweden)

17:45-18:00 Closing remarks