

WATER AND ENVIRONMENTAL MANAGEMENT SERIES



Sewer Networks and Processes within Urban Water Systems

Selected proceedings of the 18th European
and 1st Asian Junior Scientists Workshops

Edited by J.-L. Bertrand-Krajewski,
M. Almeida, J. Matos and S. Abdul-Talib

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Systems and Processes Working Group*

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Foreword

In September 2002, the SS&PWG (Sewer Systems and Processes Working Group) of the IWA/IAHR Joint Committee on Urban Drainage decided to organize two Junior Scientists Workshops in Europe and Asia. Both workshops were conceived according to the now traditional rules of Juniors Scientists Workshops, as described by Schilling (1999).

The 18th European Junior Scientists Workshop (EJSW) has been held in Almogrove, Portugal, on 8-11 November 2003, on the theme “Sewer processes and networks”. There were 24 junior participants from 11 countries and 4 seniors to facilitate the organisation. The main topics were integrated modelling of urban water systems, measurements and modelling of combined sewer overflows, modelling of pollutant loads emitted by sewer systems during dry and wet weather, calibration of models, bed-load transport, sewer pipe roughness, advection in sewers, anoxic processes and oxygen transfer in sewers, infiltration and exfiltration.

The 1st Asian Junior Scientists Workshop (AJSW) has been held in Malacca, Malaysia, on 7-10 February 2004, on “Sewer network processes and urban drainage”, a slightly wider theme to account for regional research activities. There were 19 junior participants from 5 countries and 2 seniors. The main topics were runoff source control, rainfall runoff modelling, pollutant loads in sewers, bed-load transport in sewers and rivers, anoxic transformations in sewers, ventilation and oxygen uptake rates in sewers, deposits and exfiltration in sewers. The AJSW was the first junior workshop with this format in Asia, and interesting perspectives exist to organise future similar events in this region.

In total, 37 papers have been presented in both workshops, which are now accessible to all participants from Asia and Europe through a restricted access website. This will facilitate mutual information and share of knowledge between participants from these two regions. There are similarities in research topics, but with significant adaptations / differences due to climate conditions (e.g. humid tropical context in Asia compared to more moderate European

climate), to urbanisation (e.g. very dense urbanisation in Japan compared to Europe) and to sewer systems (e.g. open storm sewers for monsoon in Malaysia). There are also differences in social behaviour during the workshops, as relations between juniors and seniors are different in Asian and European cultures. As a consequence, there is still much to be learnt by all junior and senior participants through more frequent contact and exposure to different cultural, social and scientific practices.

Among the 37 full papers, 16 papers have been selected by independent reviewers from the SS&PWG for publication in this issue of the WEM book series. They reflect rather well the variety of topics presented during both workshops, and offer an opportunity to the junior authors to have a wider audience for their work.

In both workshops, the junior participants themselves chaired sessions, played the role of advocatus diaboli, and prepared reports for all sessions to identify key scientific elements and remaining questions. This intense involvement in the workshop organisation and management is full part of the Junior Scientists Workshops. In order to help the Juniors in these tasks, the seniors provided some guidelines which were appreciated by all participants. As these guidelines may also be interesting for a wider audience, they are reproduced as an appendix to this issue.

Last but not least, these workshops would not have been a success without the significant participation of many SS&PWG Committee members (for more information about SS&PWG activities, see at the website <http://www.sspwg.civil.auc.dk/>) and of some external senior colleagues, who reviewed the abstracts and the full papers with strong motivation and seriousness. Special acknowledgements to Aminuddin Ab. Ghani (Malaysia), Richard Ashley (UK), Sylvie Barraud (France), Guang-Hao Chen (Hong Kong), Bernard Chocat (France), François Clemens (The Netherlands), Ana Deletic (Australia), Thomas Ertl (Austria), Kapil Gupta (India), Thorkild Hvitved-Jacobsen (Denmark), James Joyce (USA), Ole Mark (Denmark), Jiri Marsalek (Canada), Erik Ristenpart (Germany), and Peter Vanrolleghem (Belgium). Special thanks also to Emilie Baer: she played a key role in relations with the authors and in the final editing work to prepare these proceedings.

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