

# PART 1 – A BRIEF HISTORY OF ACTIVATED SLUDGE MODELLING

## PART 2 – NITRIFICATION KINETIC PARAMETERS FOR STW DESIGN AND MODELLING

### Speaker

**Prof. Peter L. Dold**

**Dr. Christopher M. Bye**

#### Abstract

Part 1 – A Brief History of Activated Sludge Modelling by

This presentation traces the history of developments underlying the IWA ASM-type models currently used in design and simulation of sewage treatment works.

Part 2 – Nitrification Kinetic Parameters for STW Design and Modelling

This presentation looks at the parameters applied in the widely-used IWA textbook on Biological Wastewater Treatment, and contrasts these with parameters applied in North America.

#### Biography

**Peter L. Dold, BSc Eng (Chem), PhD**

Peter Dold is a graduate of the University of Cape Town. He is the founder and president of EnviroSim Associates, developers of the BioWin dynamic wastewater treatment plant simulator.

Dr. Dold is the author or co-author of more than 150 research papers. Peter is actively involved in a number of research projects jointly with utilities and universities. Current research focus is: biological nutrient removal, chemical phosphorus precipitation, and process control particularly in the context of the new generation of nitrogen removal systems.

Peter is actively involved in consulting activities around the world, with an emphasis on full-scale biological nutrient removal system analysis, optimization and design.

**Christopher M. Bye, B Eng (Civil), PhD, P.Eng.**

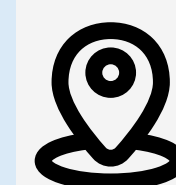
Chris Bye is Director of Software Development with EnviroSim Associates Ltd., developers of the BioWin wastewater treatment process simulator. Dr. Bye has over 25 years of experience in wastewater treatment including process design and equipment selection, full-plant modeling and model development for biological nutrient removal, and wastewater characterization and kinetic studies. Chris leads and supports consulting projects for analyzing process options for design, assessment of process capacity, analysis of capacity limitations and development of model-based tools for specific plants.



**8 February 2023**  
**Wednesday**



**2:30pm - 3:30pm**



**Civil Engineering**  
**Conference Room**  
**Room 3574 (Lift 27/28)**  
**HKUST**

#### Enquiry:

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