



**LUND**  
UNIVERSITY

BSM1 Implementation from Lund University

21 May 2009

Agreement with Lund University

To whom it may concern

Dept of Industrial Elect. Eng. & Automation (IEA)

Dear Colleague,

The models of the BSM1 (property of IWA Task Group) you have just received represent the implementations from the Department of Industrial Electrical Engineering and Automation (IEA), Lund University, Lund, Sweden. The work has been carried out by Dr Ulf Jeppsson, Dr Christian Rosen and others.

The models are available for the Matlab®/Simulink® platform and have been written in C (incorporated into Simulink as C MEX S-functions). You need to compile the C files for your own processor/computer (**use the mex command within Matlab, the internal compiler will work fine**). The models will work on releases from R2019b onwards.

Specifically, the implementations are made to fit into the framework of the Benchmark Simulation Model, which is currently being developed by the IWA Task Group on Benchmarking of Control Strategies for WWTPs. This also means that some details of the current implementation may still change as the development of the benchmark continues. Gradually, detailed information concerning the work of the task group will become available on [www.benchmarkwwtp.org](http://www.benchmarkwwtp.org).

In principle we provide this implementations for free in a true academic spirit and can therefore not offer any traditional support. You may contact us to discuss various aspects of the models but we do not guarantee that we can find time to assist you. However, we do ask you to:

- **Send us feed back** in case you find errors or possible improvements to the implementations or if you come across operational situations where any of the three implementations behave differently or strangely compared to the others;
- **Send us copies of scientific papers** you write, which are to some extent based on the use of any of these three model implementations;
- **Please acknowledge the work that has been carried out by us** in any papers you publish, where the use of our model implementations have had an impact.

We hope that you will enjoy and benefit from the use of these models and also that it may lead to more scientific collaboration between our groups in the future. You are always welcome to contact us on such matters.

Sincerely,

Ulf Jeppsson ([ulf.jeppsson@iea.lth.se](mailto:ulf.jeppsson@iea.lth.se))  
Christian Rosen ([christian.rosen@iea.lth.se](mailto:christian.rosen@iea.lth.se))