



**POLITECNICO
DI TORINO**

Dipartimento di Ingegneria
dell'Ambiente, del Territorio
e delle Infrastrutture

28-29 May 2018

Laboratorio Didattico 1 (Aula Rocce, -1 Floor) – DIATI3

WORKSHOP

“Wastewater treatment: increasing the efficiency of sequencing batch reactor (SBR) plants”

*organized in the framework of ERASMUS + agreement between Politecnico di Torino and
“Vasile Alecsandri” University of Bacau, Romania*

ABSTRACT

Considering the international context, the problem of wastewater treatment is no longer seen as a specific objective for urban agglomerations and industrialized areas. In areas where only decentralized sewage treatment systems can be implemented, Sequencing Batch Reactor (SBR) process could be an effective solution for wastewater treatment. To ensure a high degree of treatment in small SBR plants it is essential to identify the correlations among the qualitative and quantitative characteristics of the wastewater, the treatment system's construction characteristics and the operating factors.

The workshop aims to identify the available perspectives for the optimization of the performances of SBR processes, with a particular attention for the heat balance. The outline is organized in two modules, each one foreseeing a theoretical part and applications through the use of a software.

28 May 2018 (2 pm - 6 pm)

Module 1

- Domestic wastewater treatment in small treatment plants
- Domestic wastewater treatment in SBR treatment plants
- Particularities of small SBR systems
- General description of Sewer GEMS software
- Installation and initiation of Sewer GEMS software

29 May 2018 (2 pm - 6 pm)

Module 2

- Heat balance description for a small SBR system
- Heat balance applications for a small SBR pilot plant
- Sewer GEMS software initiation.
- Quick start lesson for Sewer GEMS software



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Domains of research: wastewater treatment, sludge treatment, water treatment. **Principal author or co-author** for more than 50 scientific papers (According to Google Academic). **Member** in over 20 research projects. **Reviewer** for 20 Journals with more than 100 reviews (According to Publons).

REGISTRATION:

The workshop is open to **Master and PhD students and research fellows**

Max no. of participants: 20

Participants are required to bring their laptop for practical activities foreseen for each module.

Please apply writing an email to **Prof. Silvia Fiore**, DIATI, not later than 26 May 2018: silvia.fiore@polito.it

Sequencing Batch Reactor (SBR)

