



Technische
Universität
Braunschweig



EXCELLENCE CENTER FOR
DEVELOPMENT COOPERATION
SUSTAINABLE WATER MANAGEMENT



Summer School on

Wastewater Treatment Plants and Management

November 04 – 11, 2012 / São Carlos, Brazil



funded by



Federal Ministry
for Economic Cooperation
and Development

DAAD



Summer School on Wastewater Treatment Plants and Management

Overview

Migration into cities is one of the biggest problems of the XXI century: Managing water availability and its use as well as wastewater treatment in urban areas is one of the most important challenges for worldwide sustainable development.

The domestic use of water generates enormous amounts of wastewater, creating serious environmental pollution. The lack of wastewater treatment plants have led to the disposal of generated urban sewage directly into the water surface or into the soil.

In Brazil, the situation is critical: Only 50% of urban wastewater is treated, and in many communities sewage flows in front of the houses. Thus, it is crucial, mainly in developing countries, to establish public policies devoted to increase the capacity to treat wastewater and to improve the technologies for removing contaminants.

Wastewater generation, wastewater treatment processes and respective technologies applied, as well as the management of wastewater treatment plants will be the main subjects of this Exceed Summer School hold at UFSCar, Federal University of São Carlos, and USP-SC, São Paulo University (São Carlos Campus).

Objectives

Participants will gain profound knowledge on:

- the problem of wastewater generation and its impact on the environment
- wastewater treatment technologies
- potential applications and disposal of the generated sludge
- management of wastewater treatment plants
- water reuse

Topics

- Wastewater generation
- Wastewater pollution control
- Sludge treatment and disposal
- Laboratory and field activities
- Water reuse
- Management of wastewater treatment plants

Course Organization

The course will consist of lectures, laboratory and field activities as well as one cultural excursion. Courses will take place at UFSCar and USP-SC facilities.

The language of the summer school will be English.

A CD with information on the lectures, bibliographies and related publications will be sent to the selected applicants in advance.

| Schedule | | |
|-------------------|-------------------|---|
| Sunday | 11/04/2012 | Arrival of participants |
| Monday | 09.00-09.30 | Opening ceremony by UFSCar/USPSC and Exceed representatives |
| 11/05/2012 | 09.30-18.00 | Wastewater generation Initial concepts of environment characterization, water pollution, legal aspects; wastewater pollution control (wastewater generation, wastewater physico-chemical properties, wastewater treatment objectives) |
| Tuesday | 08.00-12.00 | Wastewater treatment technologies I |
| 11/06/2012 | 14.00-17.00 | Physical, chemical, biological processes; aerobic / anaerobic systems |
| | 17.00-19.00 | Field trip to wastewater treatment plant of São Carlos City |
| | | Poster session I about the the participant's research areas and projects |
| Wednesday | 08.00-12.00 | Wastewater treatment technologies II |
| 11/07/2012 | 14.00-16.30 | Aspects related with project and design |
| | 17.00-19.00 | Field Trip to Technological Center and Museum of TAM Airlines; knowing the management of water use |
| | | Poster session II about the participant's research areas and projects |
| Thursday | 08.00-12.00 | Wastewater treatment technologies III |
| 11/08/2012 | 14.00-18.00 | Aspects related with project and design |
| | | Field Trip to wastewater treatment plant of Ribeirão Preto City |
| Friday | 08.00-12.00 | Water reuse and sludge treatment and disposal |
| 11/09/2012 | 14.00-17.30 | Sludge treatment and disposal; sludge use in agricultural areas |
| | 17.30-19.00 | Management of wastewater treatment plants |
| | | Closing remarks |
| Saturday | 06.00-20.00 | Excursion to the big São Paulo and its historical and cultural centers |
| 11/10/2012 | | |
| Sunday | 11/11/2012 | Departure day |

Lecturers

Lectures will be hold by Brazilian leading scientists in the summer school's topics.

Target Audience

Advanced M.Sc. and PhD students, post-doc-researchers and practitioners with an engineering and scientific knowledge on M.Sc./M.Eng. level, interested in acquiring knowledge in

wastewater treatment and management.

Number of participants

The number of participants is confined to 20.

Application

Please apply online until September 30, 2012: <http://www.exceed.tu-braunschweig.de/apply/summerschool>

Internet: www.exceed.tu-braunschweig.de
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