

# Summer School on Water-Energy Nexus in Urban Water Systems: Energy Saving and Recovery

August 26 – September 2, 2018 / Shanghai, P.R.China



The summer school on “Water-Energy Nexus in Urban Water Systems” will take place in Shanghai, China from August 26<sup>th</sup> to September 2<sup>nd</sup>, 2018. The College of Environmental Science and Engineering of Tongji University organises this international and interdisciplinary summer school. We are expecting lectures and participants from China and other countries. The summer school is part of the Exceed-Swindon project within the ongoing programme “Excellence Centre for Development Cooperation” (EXCEED), funded by the German Academic Exchange Service (DAAD). This year’s Exceed-SWINDON summer school’s topic is on “Water-Energy Nexus in Urban Water Systems: Energy Saving and Recovery”. Speakers at the summer school will present basics and tailor-made solutions for energy saving and recovery in urban water systems.

### Objectives

The focus of this year’s summer school is the discussion of problems in water-energy nexus in urban water systems, particularly the energy saving and recovery technologies and policies for developing countries and emerging economies. Special emphasis is laid on sustainability aspects and how they can be reached. During the keynote session speakers will highlight basics and special aspects on water-energy nexus in urban water systems while paying attention to special application examples. In the following the participants are asked to present their research projects. Afterwards, the opportunity is given to deepen different topics while identifying special problems and working on possible solutions in small working groups. The results of the working groups will be presented and published in the workshop proceedings. The summer school will end with a field trip to different drinking water treatment plants and waste treatment plants in Shanghai, China.

### Achievement of Objectives

The audience is expected to learn the following points from this event: water-energy nexus; energy consumption and saving in urban water systems; energy recovery from urban water systems; application of renewable energy in drinking water and wastewater treatment plants.

## Topics

The main topics will be:

- Introduction to water-energy nexus
- Water-energy nexus in wastewater treatment plant
- Water-energy nexus in drinking treatment plant
- Water-energy nexus in the residential sector
- Energy saving and recovery technologies in urban water systems

The main topics of the summer school will be introduced by keynote speakers.

Student applicants are asked to submit extended summaries (see template in the announcement) of their presentations dealing with the abovementioned topics. The contents of the presentations and extended summaries should follow the following objectives:

- Explanation of the context to the topics of the Summer School
- Problem description
- Social, ecological, economical and environmental effects
- Suggestions for suitable solutions

## Workshop Organization

The workshop will take place in Shanghai, China. The College of Environmental Science and Engineering of Tongji University will host the workshop in Shanghai within the framework of Exceed project that is funded by the German Academic Exchange Services (DAAD).

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# SCHEDULE

Day	Date	Activity
Sunday	26.08.2018	ARRIVAL
Monday	27.08.2018	Keynote Oral presentation of participants
Tuesday	28.08.2018	Keynote Oral presentation of participants
Wednesday	29.08.2018	Field trip
Thursday	30.08.2018	Keynote Oral presentation of participants
Friday	31.08.2018	Working Groups / Presentation of the Working Groups / Summary / Output
Saturday	01.09.2018	Visit "Shanghai Scientific Energy Conservation Exhibition Hall" or "Bailonggang Wastewater Treatment Plant"
Sunday	02.09.2018	DEPARTURE

## Target Audience:

The participants expected are preferably advanced master students, PhD-students, post-docs interested in acquiring knowledge and competence in the following fields: water-energy nexus; energy consumption and saving in urban water systems; energy recovery from urban water systems; application of renewable energy in drinking water and wastewater treatment plants.

## Number of participants:

The number of participants is limited to 19. Candidates from the SWINDON/exceed partner universities are to be given first priority. Practitioners, decision-makers and trainers intending to transfer the acquired knowledge and skills directly into engineering of integrated systems will also be given priority.

Student applicants are asked to submit extended summaries ( **download and apply the template file mentioned in the announcement:** <http://sea.exceed-swindon.org/announcements/> ) of their presentations dealing with the topic of the summer school. **Deviation from the template will not be accepted.**

## Application:

Please apply online until **22 April 2018** under:  
<http://sea.exceed-swindon.org/apply-for-a-summer-school-or-workshop/>

Each candidate will be informed about the outcome of his/her application **until 04 May 2018**.

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**Contact Organising Institution:**

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