International Training
Environmental Learning Innovation for More Knowledge and Better Jobs
EnvYJobs Live Labs
Enschede, The Netherlands 27.08.2017 – 09.09.2017 (including travel days)

HOSTING INSTITUTION:
Saxion University of Applied Sciences, Enschede, The Netherlands
School for Life science, Engineering & Design
Chair International Water Technology

GENERAL DESCRIPTION OF THE HOSTING ORGANIZATION

Saxion University of Applied Sciences is a large university in the eastern part of the Netherlands. Saxion has established itself since 1875 as one of the main providers of high quality professional higher education and research in The Netherlands. There is a wide offer of high quality programmes from chemistry to hospitality. Saxion offers mainly Bachelor courses as well as a number of Associate degrees and Masters. It has three city campuses in the Eastern region of the Netherlands (all next to railway stations) two larger ones in Deventer and Enschede and one smaller one in Apeldoorn. In total these three locations house around 27,000 students and 2,400 employees.

Applied Education
Saxion as UAS brings regional socio-economic and technical challenges to the classroom by giving students opportunities to work on projects with external clients on actual cases. Students acquire professional skills and academic knowledge to tackle pending societal challenges. Strong connections to the main stakeholders in the Eastern region of the Netherlands have enabled Saxion to align with the human capital agenda.

Research Agenda Living Technology
Saxion aims to distinguish itself by establishing a reputation in the field of Living Technology. This involves looking at the interaction between technology and society. Living Technology is not just about developing innovative products and techniques, but also about research into
the impact of innovative technology on humanity and society (and vice versa). Our spearheads are innovative technology, demand-driven social relevance, co-creation and collaboration between disciplines. Within the field of Living Technology, we focus on three main research areas:

1. Areas & Living
2. Health & Wellbeing
3. Smart Industry

The three research programmes are underpinned by the themes of ethics and new business.

School for Life science, Engineering & Design (LED)
The School for Life science, Engineering & Design is one of the 12 schools within Saxion and takes care of the programmes in the field of Electrical & Electronic Engineering, Mechanical Engineering, Applied Physics, Industrial Product Engineering, Mechatronics, Applied Computer Sciences, Chemistry, Biology & Medical Laboratory Research, Chemical Engineering, and Forensic Research. Recently the Professional Master program Applied Nanotechnology has been started. The school has a population of about 2,000 students and 150 teaching staff.

The educational program of LED is based on the competence-based approach and pays a lot attention to the personal development of students by dedicated support through the complete educational career.


Chair International Water Technology (IWT)
The education and research within the research group International Water Technology is centred around water in urban and rural environment. In the 'City of the Future', the entire water cycle is redesigned and adapted, so that optimal water (re-)use is combined with a maximum energy recovery, nutrient recycling, and guaranteed water supply, quality and safety. The IWT research focuses on:

1. Water & Energy
   - Bio-based energy (anaerobic digestion);
   - Oil/gas (produced) water treatment.

2. Water & Materials
   - Health & Safety (membrane and sensor technology for EDCs removal);
   - Bio-based raw materials (recovery of nutrients, such as phosphate).

3. Water & Environment
   - Climate Resilient Cities (sustainable water cycle);
   - Sustainable Development Goals (decentralization, PoU/PoE water treatment);
   - Capacity Building.
SHORT DESCRIPTION OF ACTIVITIES

The live lab in The Netherlands offer to the students from University POLITEHNICA of Bucharest (Romania), University of Trento (Italy) and Saxion University of Applied Sciences (The Netherlands) a blended program of various activities:

- **Guest lectures** by experts from the industry covering the topics of the NEW-course, such as the aerobic and anaerobic industrial membrane bioreactors (MBR), the aerobic municipal MBR, ultrafiltration, reverse osmosis, and ground water pollution remediation.
- **Practical training** in the Saxion research facilities to practise several of these technologies.
- **Technical (course-related) field visits** to various sites in The Netherlands, such as the hybrid waste water treatment plant Ootmarsum combining the conventional activated sludge process with the aerobic MBR; a solid waste company applying the industrial aerobic crossflow MBR system; the Pure Water Factory turning wastewater into high quality steam used for injection water to pump crude oil.
- **Technical (integrated water-management related) field visits** demonstrating new solutions to cope with climate changes, such as the City Brook (in Enschede), the ‘Kristalbad’ as ecological buffer and retention zone between 2 cities, flexible dykes, etc.
- **Technical visits to breakthrough technologies**, such as the Blue Energy project on the ‘Afsluitdijk’), where mixing sweet and salty water generates energy.
- **Meetings** with various stakeholders (industrial societies as well as research institutes) to discuss the needs of and the developments in the (inter)national labour markets and chances for e.g. PhD programs.

During the weekend days and evenings sportive and cultural activities will be offered to the participants. In the same weeks both at the University of Twente as well at Saxion UAS the so-called ‘Intake weeks’ for the new students will be organized with many activities, in which we can (partly) participate.
STUDENTS SELECTION

Available places:
• 22 – for University POLITEHNICA of Bucharest
• 8 – for University of Trento

NB. From Saxion UAS all students will be enrolled who are participating in the minor course International Water Technology (class 2017-2018).

Requirements to attend live laboratory:
• Students are enrolled at the corresponding university in the period of live laboratory;
• Priority will be given to the students that have passed the examination for courses they choose (minimum 4 out of 6) from EnvYJobs Modules and to the students that have passed the examination for the corresponding course.

Application for admission to Live labs must be submitted online through project’s website, using the electronic application form. As a part of your application, you will upload a scanned copy of the certificate of enrolment provided by your university and a scanned copy of the signed application form. The original documents will be given to the project responsible from your institution.

FUNDING

The costs for travel, accommodation and meals will be covered by the Erasmus+ programme. In this regard, every students will have a grant of 935 Euro. Saxion will arrange accommodation for all our foreign students (in total 30) in 2 log cabins on the campus at the nearby University of Twente. The campus of the University of Twente is an area where students and staff live, work and study. All education and research buildings of the university are grouped together on an area of approximately 1 kilometre wide and 1.5 kilometre long, on the west side of Enschede. The campus is freely accessible, and so are its canteens and restaurants (https://www.utwente.nl/en/campus/facilities/).
LEISURE ACTIVITIES

Enschede is a city in the eastern part of The Netherlands close to the German border with around 150,000 inhabitants. The town has good railway connections to the rest of the country, e.g. to airport Schiphol a 2 hours straight connection as well as half-hour based connections to all of the major cities.

Due to the fact that the Dutch live labs are being organised during the summer period many activities are being organised which can be found on via the well-known search engines on internet. During the live lab period several suggestions for leisure activities will be presented.

HOW TO APPLY & MORE INFORMATION:
http://envyjobs.pub.ro

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