

ICRA - Scientific Park of the
University of Girona
Girona (Catalonia, Spain)
25-29 April 2016

Training School



MODELLING AND DECISION SUPPORT SYSTEMS FOR SUSTAINABLE WASTEWATER TREATMENT

Short, intensive and highly specialised course focusing on innovative decision support tools and methods for wastewater treatment systems

The course is organized by WG4 on Process Integration of the Water_2020 COST Action and located at the Laboratory of Chemical and Environmental Engineering (LEQUIA) of the University of Girona (UdG, Spain) and the Catalan Institute for Water Research (ICRA).



CONTACT

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COURSE SUMMARY

Language: English

Number of participants: 25

Total hours: 36

Technical visits

No registration fee

Training School

Girona (Spain)

25-29 April

DESCRIPTION

This short, intensive and specialized course is focusing on modelling, control and decision support tools for the complex issue of sustainable wastewater treatment systems. State-of-the-art and leading-edge tools will be presented and used in various hands-on exercises.

This is an opportunity to learn about tools that help provide consistency, time efficiency, integrated and optimum solutions for a wide range of wastewater treatment problems.

The course is mainly oriented towards PhD students who want to achieve a higher degree of specialization in this field, but also to other students or professionals, who have busy schedules, but are interested in learning specifically about modelling and decision support tools for sustainable wastewater treatment system management.

Didactical methods used in this course:

- a) Lectures given by global experts from academia and practice
- b) Individual and group exercises and game-based learning in the classroom
- c) Discussion sessions
- d) Practical sessions using models and decision support systems
- d) A technical visit.

APPLICATION FOR REGISTRATION

The applicants should fill in an e-registration form at www.udg.edu/watersummerschool and upload on-line in one single document:

- ❖ A cover letter with a statement of interest of up to one page, including a description of your research topic
- ❖ Short CV including a list of publications, if any

Students have the opportunity to apply for grants to partially cover their travel expenses, accommodation and meals. The following grants are offered:

- ❖ 20 grants of 450 € for international students
- ❖ 5 grants of 300 € for Spanish students

The following selection criteria will be applied: CV, Letter of interest, research topic, gender and country balances. On **March 30th**, the organization will communicate to applicants, by email, whether they have been admitted to the course or not.*

*The organization reserves the right to cancel the course if the minimum of 15 students is not reached.

REGISTRATION

DEADLINE

27th March

Training School Programme 25- 29 April 2016

Hour/Day	Monday, 25 th April EDSS and evaluation tools	Tuesday, 26 th April WWTP modelling	Wednesday, 27 th April WWTP control	Thursday, 28 th April Plant-wide modelling	Friday, 29 th April Technical visit
09:00-10:15		Deterministic modelling	Introduction to WWTP control	Plant-wide modelling	FIELD TRIP
10:15-10:45		<i>Coffee break</i>			
10:45-12:00		Multicriteria and multiobjective tools	Control options in WWTP (use of BSM models)	Student presentations (presentation and discussion on the selected solution)	
12:00-13:15		Introduction to NOVEDAR	Introduction to BIOWIN		
13:30-15:00	Get together lunch	Lunch			Final lunch close to the coast
15:00-16:15	DSS in WWT plenary	Role-playing game on modelling and DSS (problem description and use of EDSS for preliminary design)	Role-playing game on modelling and DSS (use of simulation software to optimize design and operation)	Simulation of innovative configurations	
16:15-17:30	LCA: a tool for WW management				
		Social programme (visit to the old district of Girona + dinner)	Spare time	Gala dinner	
17:30-22:30	Spare time				

Lecturers: Marie-Noëlle PONS (Research Professor, University of Lorraine), Ulf Jeppsson (Lund University), Krist Gernaey and Xavier Flores-Alsina (DTU), Manuel Poch (University of Girona), Lluís Corominas (ICRA), Jose Porro (Cobalt Water EU), Eduardo Ayesa, Paloma Grau and Tamara Fernández (CEIT), Ignasi Rodríguez-Roda and Joaquim Comas (ICRA and LEQUIA-UdG).

More information

www.udg.edu/watersummerschool

COURSE LOCATION

ICRA - Scientific Park of the University of Girona
Emili Grahit. 101, 17003 – Girona, Spain

