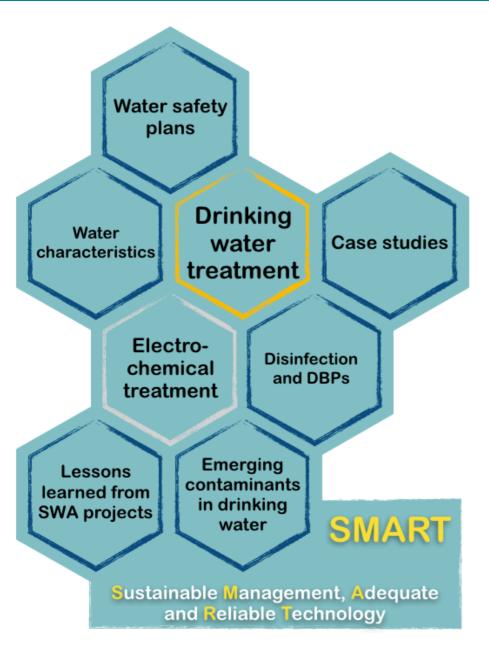
# Summer School on SMART Drinking Water Treatment State of the art and future perspectives



Organized by:





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**When** 01 - 05 **July**, 2019



Where
Department of
Engineering,
Ferrara, Italy



Important dates

- -**28 March**, opening application for participation
- -15 May, closure of submission
- -01 June selection and announcement of participants

https://de.unife.it/it/smartswa

# **DESCRIPTION AND GOALS**

The summer school covers the main issues related to sustainable drinking water treatments and selection of adequate technologies. In particular lessons will critically review advantages and drawbacks of the different approaches for water treatment and drinking water production and management, also presenting the main results achieved within the EU H2020 SafeWaterAfrica project.

# **ACTIVITIES AND SCHEDULE**

|               | Monday, Jul 01   | Tuesday, Jul 02   | Wednesday, Jul 03                   | Thursday, Jul 04  | Friday, Jul 05  |
|---------------|--|---|-------------------------------------|---|---|
| 09:00 - 09:30 |  |   |                                     | Disinfection byproducts (DBPs): introduction, formation and monitoring (P. Roccaro) | New emerging<br>contaminants in<br>drinking water<br>(P. Verlicchi)                 |
| 09:30 - 10:00 | Welcome by<br>authorities (Dean,<br>research board<br>President, PhD school<br>coordinator)    | Chemical treatments.  Coagulation, precipitation, sedimentation, electrofiltration (M. Rodrigo)  Filtration (M.Antonelli & A.Turolla) |                                     |   |   |
| 10:00 - 10:30 | Introduction to the school   |   |                                     | Strategies to control<br>DBP formation in<br>drinking water (M.J.<br>Farré)         | Water safety plans<br>(G. Di Pofi)  |
| 10:30 - 11:00 | Presentation of participants   |   | Technical visit to<br>Ridracoli Dam |   |   |
| 11:00 - 11:15 | - Coffe break  |   |                                     | Coffe break   | Coffe break   |
| 11:15 - 11:30 | Cone break   |   |                                     |   |   |
| 11:30 - 11:45 | Main issues related to   | Coffe break   |                                     | Electrochemical<br>system for safe water<br>(A. De Battisti)                        | SafeWaterAfrica:<br>results approaching<br>to the end of the<br>project (M.Rodrigo) |
| 11:45 - 12:30 | drinking water (P. Verliccchi)   | Oxidation, Activated<br>Carbo and Biological<br>Activated Carbon (S.<br>Sorlini)  |                                     |   |   |
| 12:30 - 12:45 | Focus on variability of  |   |                                     |   |   |
| 12:45 - 13:30 | concentrations of the<br>different pollutants.<br>Monitoring of the<br>quality<br>(F. Maffini) |   |                                     |   |   |
| 13:30 - 14:30 | Lunch  | Lunch   |                                     | Lunch   |   |
| 14:30 - 15:30 | Water microbiology<br>(G.M. Woolfaardt)  | Disinfection system<br>(theory, applications,<br>discussion)<br>(M. Antonelli &   |                                     | Lesson learned and<br>case studies (M.J.<br>Farré, S. Ferro)                        |   |
| 15:30 - 16:00 |  | - A.Turolla)  |                                     |   |   |
| 16:00 - 16:15 | Chemistry of water<br>(E. Bester)  | Coffe break   |                                     |   |   |
| 16:15 - 16:30 |  | Lesson learned and<br>case studies (E.C.<br>Aviles Sacoto, M.<br>Antonelli, M. Al<br>Aukidy, L. Pasti)                                |                                     |   |   |
| 16:30 - 16:45 | Coffe break  |   |                                     |   |   |
| 16:45 - 17:30 | Suspect and non-target strategies to evaluate  |   |                                     | Mini-cruise + social<br>dinner  |   |
| 17:30 - 18:00 | source water, water treatment and the formation of transformation products (P. Gago-Ferrero)   | Presentation of the<br>technical visit<br>(P. Verlicchi)  |                                     |   |   |
| Evening       |  |   |                                     |   |   |

The course will be in English. It is oriented to PhD students who want to achieve a higher knowledge in the field of sustainable drinking water treatments especially in developing countries, but also to other students or practitioners specifically interested in these topics.

Total hours: 35 of which: 27 classroom hours + 8 hours for the technical visit. A certificate of participation will be provided at the end of the summer school at each participant.

Confirmed speakers: Mustafa Al Aukidy (University of Al Mustansiriyah), Manuela Antonelli (Polytechnic of Milan), Estefania Caridad Aviles Sacoto (UPS, Ecuador), Elanna Bester (University of Stellenbosch), Achille De Battisti (Gate s.r.l.), Giorgia Di Pofi (Sapienza Università di Roma), Maria José Farré (ICRA, Spain), Pablo Gago-Ferrero (ICRA, Spain), Sergio Ferro (Gate S.r.l), Francesco Maffini (HERA S.p.a), Luisa Pasti (T&A tech), Manuel Rodrigo (UCLM, Spain), Paolo Roccaro (University of Catania), Sabrina Sorlini (University of Brescia), Wendy Stone (University of Stellenbosch), Andrea Turolla (Polytechnic of Milan), Paola Verlicchi (University of Ferrara), Gideon Malherbe Wolfaardt (University of Stellenbosch).

### **APPLICATION INFOs**

The applicants have to submit via e-mail (<a href="mailto:smart.swa@unife.it">smart.swa@unife.it</a>):

- 1) A cover letter with 1 page-statement of interest.
- 2) Curriculum Vitae, including current research fields.
- 3) A list of publications.
- 4) Release for reproduction and use of pictures and videos, available on: <a href="https://de.unife.it/it/smartswa">https://de.unife.it/it/smartswa</a>)
  Selection of participants will be carried out by organizers, according to the submitted documents, gender/country balance.

Maximum number of participants: 30

Fees: there is NO registration fee for the course.

### **SOCIAL PROGRAMME**

- 1) Guided tour of the town (by bike or on foot) on Tuesday 2nd July, at 9:00 PM.
- 2) Technical visit on Wednesday 3rd July, from 9:00 AM to 5:00 PM.
- 3) Social dinner on Thursday 4th July, at 8:30 PM.

## **VENUE AND LODGING**

Lessons will be held at the Technical and Scientific Pole, Via Saragat 1, Ferrara, Italy (Map and how to arrive below). For the accommodation, a list of affiliated hotels is available at the link: https://de.unife.it/it/smartswa

### ORGANIZER CONTACTS

Responsible: Paola Verlicchi

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