

Presentation of the summer school

This Summer school will focus on the appropriate technologies for managing WASH (Water, Sanitation and Hygiene) services in humanitarian emergencies caused by extreme climate events (e.g. floods, earthquake, etc) and armed conflicts.

The course program will include:

- Introduction to the main criteria for selecting an **appropriate technology** for intervention in an emergency situation.
- A set of tools to operate in the different stages of a response to a humanitarian crisis.
- **Group work** on choice and development of appropriate technologies in selected contexts.

The course is relevant to:

- Practitioners in international development cooperation;
- Undergraduates, MSc and PhD students;
- Researchers, professors and other interested persons.

Participation is free of charge but **registration** is required by filling out the registration form at this [link](#) within the **9th of June 2023**.

A *maximum number of 30 people* will be accepted to participate in class.

A certificate of attendance will be issued for students attending at least 75% of the course.

Students enrolled at University of Brescia in Civil Engineering, Land and Environmental Engineering or Architectural Engineering degree courses can get n. 3 ECTS, if Summer School has been chosen in the study plan.

School Coordinators

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Organizing secretariat

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CeTAMB

CeTAMB is a research center of University of Brescia supported by Fondazione Cogeme, Museke, Sipec and Tovini. CeTAMB aims to build knowledge and develop research on appropriate technical solutions for the management of environmental issues in Low and Middle Income Countries. CeTAMB collaborates with NGOs', universities and secondary schools to carry out research and education activities. So far, several projects have been implemented and developed on water, sanitation and energy in different countries.

GETTING THERE

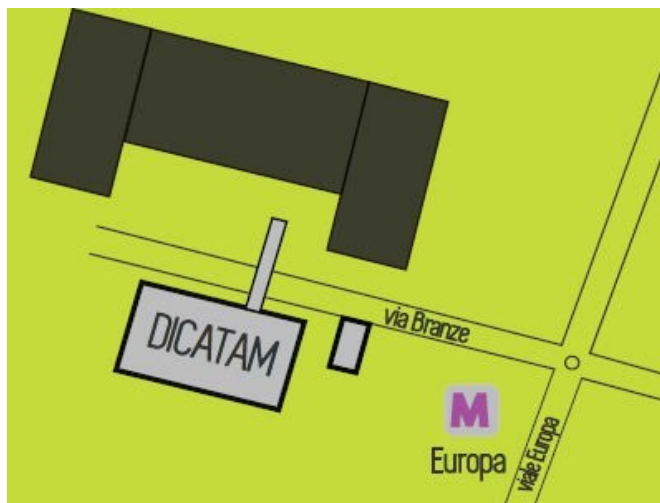
by car

Highway A4 Milano-Venezia

- from Milano, exit A4 at "Brescia Ovest" and follow indications to "stadio" (stadium) or "ospedale" (hospital) (North direction). Pass the hospital and turn right from via Triumplina to via Branze
- from Verona or Piacenza, exit A4 at "Brescia Centro" and follow indications to "stadio" or "ospedale".

by train

At Brescia station take the metro towards "Prealpino", stop at "Europa" then see the map below.



UNIVERSITY
OF BRESCIA

CeTAMB

Research center 'Appropriate technologies for environmental management in resource limited Countries'

Co-organized by

eawag
aquatic research
Sandec
Sanitation, Water and
Solid Waste for Development

University of Applied Sciences and Arts
of Southern Switzerland

SUPSI

XII International Summer School

The role of appropriate technologies in water, sanitation and waste management to address humanitarian emergencies

Coordinators:

Prof. Sabrina Sorlini
Prof. Mentore Vaccari

19th - 23rd June 2023

University of Brescia - DICATAM
Via Branze 43, Brescia (Italy)
Room B.05

Participation:
in person and remote mode

In collaboration with:



The role of appropriate technologies in water, sanitation and waste management to address humanitarian emergencies

Monday 19th June

Morning session

09:30 Participant registration and welcome

10:00 Presentation of the Summer School - S. Sorlini

10:15 Appropriate technologies in WASH to address humanitarian emergencies

- Environmental aspects - *M. Vaccari*
- Health aspects - *A. Matteelli, B. Rossi*
- Social aspects - *L. Volpi*
- Economic aspects - *D. Castellani*

12:00 Discussion and participant presentation

13:00 Lunch

Afternoon Session

14:00 Presentation of the PhD course - Curriculum "Appropriate Methodologies and Techniques in International Development Cooperation": opportunities for students and impact on projects - *S. Sorlini*

14:30 The experience of the PhD students

Technological Track

Traditional building systems and contemporary environmental sustainability: vernacular architecture, agriculture and social inclusion - *M. Bonetti*

Revitalizing resources: valorisation of graphite from end-of-life Li-ion batteries through sustainable recovery - *D. Premathilake*

Disaster preparedness in drinking water supply - *M. Pezzato*

Health Track

Lifestyle assessment in rural and urban areas, Sub Saharan Africa: the value of Global Health - *G. Di Rosario*

15:30 Introduction drinking water supply and quality in humanitarian contexts - *C. Valsangiacomo*

16:00-18:00 Practical activity: Bacteriological analysis of 10 water samples - *C. Valsangiacomo*

Tuesday 20th June

09:00-13:00 DRINKING WATER in humanitarian crisis - *C. Valsangiacomo*

- Humanitarian response
- WASH in emergencies
- International standards

13:00 Lunch

14:00-17:00

- Presentation of case studies
- Interpretation of bacteriological results

17:30-19:00 Intercultural guided tour to the old town - *F. Martinelli*

Wednesday 21st June

09:00-13:00 Appropriate technologies and strategies in the WASTE management sector in humanitarian crises - *B. Reed*

- Institutional and behavior change aspects
- SPHERE Project
- Staff competencies
- Innovation and current research

13:00 Lunch

14:00-18:00

- Presentation of case studies
- Group work

Thursday 22nd June

09:00-13:00 SANITATION in humanitarian crises - *C. Luthi & S. Ubbiali*

- Appropriate technologies
- Strategies

13:00 Lunch

14:00-18:00

- Presentation of case studies
- Group work: students choose between a development or humanitarian context and prepare a sustainable sanitation solution
- Presentation of group work results

Friday 23rd June

9:00-13:00 Practical experiences and presentation of CASE STUDIES

- OXFAM Italia - *R. Sansone*
- Italian Red Cross - *G. Bolzoni*
- OXFAM Gaza - *R.D. Ziara*
- Palestinian Hydrology Group - *A. Abu Rahma*
- World Vision Syria Response - *M. Altawiel*
- UNICEF Lebanon - *K. Bonel*

12:30 Lunch

14:00-18:00 Visit to CeTAMB laboratory of appropriate technologies

EXTRA ACTIVITIES

- Visit to CeTAMB laboratory of appropriate technologies, DICATAM Department
- Intercultural integration and guided tour to the old town center of Brescia

SPEAKERS

Abdulrauf Abu Rahma	Palestinian Hydrology Group (PS)
Mohammad Altawiel	World Vision Syria Response (SY)
Giuseppe Bolzoni	Italian Red Cross (IT)
Kevin Bonel	UNICEF Lebanon (LB)
Davide Castellani	University of Bergamo (IT)
Christoph Lüthi	Sandec/EAWAG (CH)
Federica Martinelli	FAI (IT)
Alberto Matteelli	University of Brescia (IT)
Brian Reed	WASH adviser, England (UK)
Benedetta Rossi	PhD student, University of Brescia (IT)
Riccardo Sansone	OXFAM Italia (IT)
Sabrina Sorlini	CeTAMB, University of Brescia (IT)
Sara Ubbiali	Sandec/EAWAG (CH)
Mentore Vaccari	CeTAMB, University of Brescia (IT)
Claudio Valsangiacomo	University of Applied Sciences and Arts of Southern Switzerland (CH)
Laura Volpi	University of Milan (IT)
Roba Daour Ziara	OXFAM Gaza (PS)

PhD Students

Mariachiara Bonetti	CeTAMB, University of Brescia (IT)
Gianluca Di Rosario	University of Brescia (IT)
Maria Pezzato	CeTAMB, University of Brescia (IT)
Dilshan Premathilake	CeTAMB, University of Brescia (IT)

In-presence students can attend all the sessions

Online students can not attend the highlighted sessions