

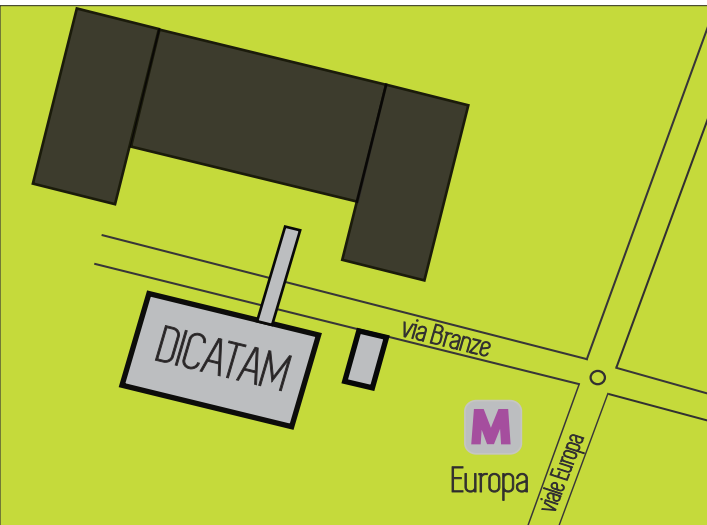
CeTAmb LAB Presentation

CeTAmb LAB aims at conducting research on appropriate technical solutions to environmental issues in Low and Middle Income Countries. CeTAmb LAB collaborates with partners such as NGOs or universities, to carry out research and education activities. Nowadays a number of projects has been developed on water and sanitation and energy recovery in several Countries (Kenya, Senegal, Burkina Faso, Gaza Strip, Mozambique, Colombia, Peru, Brazil, Bosnia and Herzegovina, Cameroon, Chad and others).

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.



Course presentation

The course aims at providing participants with methods and tools for assessment of environmental and health problem, and techniques to find appropriate solutions in low-income contexts, with specific reference to sanitation, and waste management. An overview of the environmental and health problem related to solid waste and wastewater management will be presented with solutions and techniques currently used in the world. Participants will study the methodologies for the identification and risk assessment, as well as the most appropriate technologies for solving identified problems. Finally, technologies for the treatment of solid waste and wastewater would be discussed in detail: wastes are treated as resources to be exploited and reused in a sustainable development perspective.

The course is addressed to :

- people working in International Development Cooperation
- PhD students
- students, researchers and assistant professors and all interested people

Participation is free of charge but subordinated to regular pre registration by sending an e-mail to the organizing secretariat writing full name, affiliation, address, e-mail and phone **within the 8th of June 2014**. The participation should be **confirmed before the 20th of June 2014**

A maximum number of 30 people will be accepted.
The course language is English except for the Monday morning session which will be in Italian.
A certificate of attendance will be issued for students attending at least 75% of the course.

An extra seminar will be held on Monday 7th from ARTI (Appropriate Rural Technologies Institute).



4th International Summer School - IX Refresher Course

Appropriate technologies
for resources valorisation in sanitation sector
in developing countries

30th June - 4th July 2014

Coordinators
Prof. Carlo Collivignarelli, Ing. Sabrina Sorlini
Ing. Mentore Vaccari



Aula B. 0.5 DICATAM, Via Branze 43 - 25123 Brescia



PROGRAMME

Monday 30th June

- 09:15 Participants registration
- 09:45 Welcome



morning session (in Italian)

- 10:00 Presentation of the Summer School (C. Collivignarelli)
- 10:15 Resources valorization in International Cooperation Projects:
an interdisciplinary approach:

- Health aspects (F. Castelli)
- Anthropological aspects (A. Casella)
- Economic aspects (C. Scarpa)
- Ecological aspects (G. Gilioli)
- Environmental aspects (S. Sorlini)

- 12:15 Discussion
- 12:45 Lunch

afternoon session

- 14:00 **Presentation of the researches** developed in the "Appropriate Methodologies and Techniques in international development cooperation" PhD course.

The experiences of the PhD candidates:

- Andrea Perteghella: appropriate technologies for the valorisation of waste in developing countries
- Andrea Pollmann Gomez: analysis of water poverty and protection of water resources in Vilankulo city, Mozambique
- Chiara Poppi: parasites prevalence in rural area community in Ecuador
- Silvia Odolini: clinical trials and surveillance protocols in the import pathologies
- Federico De Nardo: appropriate technologies for the production of organic fertilizer from organic residues

Tuesday 1st July

morning session

speaker: Marta Domini



- 9:00-10:30 Stakeholders and technologies in sanitation sector
- 10:30-12:00 **Role play game:** towards the challenges of a periurban sanitation project

12:15 Lunch

afternoon session

speaker: Dorothee Spuhler

- 13:30-17:00 **Appropriate treatments and valorisation strategies of the resources in the sanitation sector:**
 - sustainable Sanitation & Water Management general overview
 - potential of Sustainable Sanitation as source of nutrients
 - implementation tools

Wednesday 2nd July

morning session

speaker: Huw Taylor



- 9:00-12:30 **Development of an appropriate risk assessment strategy in sanitation sector:**
 - people and pathogens: risk assessment in developing countries
 - the existing tools (Sanitation Safety Plans, etc.)
 - the methodologies of implementation
 - case studies

afternoon session

- 14:00-17:30 Teamwork on a real case study

Thursday 3rd July

morning session

speaker: Fabio Masi



- 9:00-12:30 **Sustainable and appropriate technologies for the resources valorization in WASTEWATER sector:**
 - biogeochemical cycles of C and N, water cycle and P peak
 - sanitation issues
 - appropriate technologies and solutions: the resource recovery oriented approach
 - case study: treatment wetlands and SUDS

12:45 Lunch

afternoon session

- 14:00-17:30 Case studies and teamwork



Friday 4th July

morning session

speaker: R. D. Deshmukh (ARTI)

- 9:00-12:30 **Sustainable and appropriate technologies for the resources valorisation in the SOLID WASTE sector:**
 - rural Technology Institute Approach and technologies
 - case studies: biogas systems for waste valorisation in rural areas
- 12:45 Lunch

afternoon session

- 14:00-17:30 Teamwork on a real case study

Speakers

A. Casella	UCSC (Università Cattolica del Sacro Cuore), Brescia, IT
F. Castelli	University of Brescia, IT
C. Collivignarelli	CeTamb LAB, University of Brescia, IT
R. D. Deshmukh	ARTI (Appropriate Rural Technologies Institute), IN
M. Domini	CeTamb LAB, University of Brescia, IT
G. Gilioli	University of Brescia, IT
F. Masi	IRIDRA S.r.l., IT
C. Scarpa	University of Brescia, IT
S. Sorlini	CeTamb LAB, University of Brescia, IT
D. Spuhler	SEECON (Society, Economy, Ecology Consulting), CH
H. Taylor	University of Brighton, GB

PhD Students

F. De Nardo	CeTamb LAB, University of Brescia
S. Odolini	University of Brescia
A. Perteghella	CeTamb LAB, University of Brescia
C. Poppi	University of Brescia
A. Pollman Gomez	CeTamb LAB, University of Brescia

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