



The Venice International University and the International Waste Working Group (IWWG)

organize a Sustainable Waste Management Winter School on **"Anaerobic Digestion: processes, technology, design and research advancement"**

### **What is it about?**

Anaerobic Digestion - AD - plays a fundamental role in modern waste management strategies and represents the best solution available today for the treatment of the biodegradable fraction of waste. AD technology optimizes sustainability targets by recovering and recycling resources and by reducing uncontrolled emissions of GHG that may occur in landfills. In the framework of the VIU-IWWG Winter School on Anaerobic Digestion, highly qualified experts will provide an in-depth insight into the processes governing AD, as well as detailed information on the technologies in use (both dry and wet), design protocols, calculation procedures, and the status and perspectives of scientific investigation in this field

### **Topics covered by the course include:**

- Anaerobic Processes
- Substrates for Anaerobic Digestion
- Anaerobic Digestion Technologies and Design
- Treatment and use of biogas
- Digestate Management
- Biohydrogen Generation
- Test Systems
- Co-digestion

Anaerobic Digestion plants for developing countries

### **Program structure:**

The course duration is nine days. Students will attend in-class lectures, participate in sessions of the Venice 2014 - Fifth International Symposium on Energy from Biomass and Waste, and take part in a field trip to two anaerobic digestion plants. During the whole duration of the school students will have the possibility to discuss their individual research activity. Additionally all students will work in groups developing new ideas while working on an assigned research projects. The groups will be supervised by tutors.

Social activities will be organized in the evenings.

Minimum number of students: 16, maximum number of students 30.

**Who can apply?**

Master students who have completed all of their required course work, PhD students and young researchers from any university and any discipline with an interest in waste management. Applicants familiar with these subjects and already working in private companies or public administrations are welcome. All participants must be able to communicate fluently in English.

**When to apply?**

Applications are now open. Apply before October 19.

**Duration and period:**

15-22 November 2014

**Location:**

Venice International University, Island of San Servolo, Venice (Italy).

**Course tuition and fees:**

Tuition: 680€ + VAT - including lunches, class materials, site visits, participation to Veniec Waste Symposium sessions.

Accommodation package: 550€ + VAT including nine nights' accommodation (14-22/November) in shared double rooms on San Servolo Campus and breakfast on campus.

### **List of courses:**

History, role and perspectives of Anaerobic Digestion in Waste Management Strategies

Anaerobic Processes: Theory

Anaerobic Processes: Experimental assessment and results

Description and characteristics of different substrates for Anaerobic Digestion

Anaerobic Digestion Technologies

Anaerobic Digestion Plants Design

Operation of Anaerobic Digestion Plants and Safety Issues

Treatment and use of biogas

Digestate Management

Biohydrogen Generation

Test Systems

Co-digestion : options and cases

Small Anaerobic Digestion plants for developing countries

### **Lecturers:**

*Luca Alibardi*, University of Padova, Italy

*Werner Bidlingmaier*, Bauhaus-University Weimar, Germany

*William Clarke*, The University of Queensland, Australia

*Luis Diaz*, CalRecovery, USA (invited)

*Piet Liens*, UNESCO-IHE

*Paolo Pavan*, Ca' Foscari University of Venice, Italy

*Pinjing HE*, Tongji University, China

*Marco Ritzkowski*, University of Hamburg-Harburg, Germany

*Cristina Trois*, University of KwaZulu-Natal, Durban, South Africa

*Rainer Stegmann*, University of Hamburg-Harburg, Germany

*Jiane Zuo*, Tsinghua University, China (invited)

### **More information:**

[Informational Brochure](#)

[Draft program short version](#)

[Program of the Winter School](#)

Or contact [tea.stifanic@univiu.org](mailto:tea.stifanic@univiu.org)