NANOWAT

Diffusion of nanotechnology based devices for water treatment and recycling

Training Course & Workshop

May 12th -16th 2014

University of Basilicata – Potenza, Italy

Campus <Macchia Romana>

with the embedded participation of EXO-research organisation and GRIFA, the Italian Research Group on Pesticides and Environment

ORGANISMO DI RICERCA

GRIFA

In the last few years, water scarcity has significantly increased, especially in the countries bordering the Mediterranean, due to natural and anthropogenic factors such as highly uneven temporal and spatial distribution of precipitations, growing populations, increasing water demand for agriculture, industry, and population personal use, and the widespread contamination of water resources by a variety of organic and inorganic contaminants.

Partial or complete closure of the water cycle is an essential part to its sustainability, and its reuse should be considered. As far as the ecological and health risk are concerned, the necessity to develop cheap, compact and efficient technologies must be undertaken.

In the frame of the NANOWAT project, funded by the European Union through the ENPI-CBC-MED program, a **Training Course** is organized, in which participants will become familiar with conventional procedures as well as advanced technologies in water treatment processes. The training course will be divided in two section:
"Conventional & new water purification technologies" and "New approaches in advanced oxidation processes for water treatment".

This training course is open to researchers, students, technicians, and any other staff who is working or may be involved in the future in the water industry.

The course will end on Friday 16th of May, with a **Workshop** on “New challenges in water cleaning and recycling: needs, experimentation and future prospective in Mediterranean Countries”.
Based on current and previous studies, new technologies for water remediation and recycling in different real environments have been proposed.
During this event the challenges of water reuse practices will be discussed with regard to regulation, advanced devices for water treatment and social acceptability.

The workshop is open to private and public agencies dealing with any issue related to water industry, agriculture, little enterprises and final users.

RELEVANT INFORMATION

The course and the Workshop will be held at the Macchia Romana Campus of "University of Basilicata" from 12 to 16 of May 2014. Address: Via dell'Ateneo Lucano 10, Potenza, Italy.

Place of the course: Library of SAFE, ASCAF site (2nd floor, School of Agricultural Sciences building)

Place of the Workshop: Aula A4, central educational building (ground floor).

Course attendance and the workshop are free of charge; however, pre-inscription is needed by sending an e-mail to Laura Scrano
email laura.scrano@unibas.it, subject: training course
Phone +390972205231
Fax +390971206226

Official language: English.

A certificate of attendance will be provided at the end of the course.
Attending students can receive 4 university credits.

SCHEDULE TIME

Monday 12th	
9:00 - 9:30	Michele Perniola e Sabino A. Bufo - Opening Course
9:30 - 11:15	Ourania Katsara - *Writing and critical thinking: topic and discussion, cause and effect, comparison structures, problem and solution structures, exemplification and cohesion* / Paraphrasing, summarising, the structure of a paragraph; descriptive paragraphs, process paragraphs, opinion paragraphs
11:15 - 11:45	*coffee break*
11:45 - 13:00	Serge Chiron – *Basic technologies for water treatment and recycling* / Introduction to applied photochemistry
13:00 - 14:45	*free lunch time*
14:45 - 15:45	Serge Chiron - *New water purification technologies* / Photochemistry and photo-catalysis applied to water purification

15:45 – 17:00	Stefano Costacurta - *Dip-coating of glass tubes with photo-catalytic TiO_2* / Sol-gel coating and plasma-enhanced chemical vapor deposition (PECVD)
Tuesday 13th	
9:30 - 11:15	Ourania Katsara - *continuing* / Comparison/contrast and problem solution paragraphs
11:15 - 11:45	*coffee break*
11:45 - 13:00	Shlomo Nir - *Conventional & new water purification technologies* / Properties of clay minerals
13:00 - 14:45	*free lunch time*
14:45 - 16:00	*Project Coordination Committee (PCC) and Steering Committee (SC) meetings*
16:00 - 18:30	Preparation of pilot experiments
Wednesday 14th	
9:30 - 11:15	Ourania Katsara -…*continuing* / The structure of an essay, Introductions and Conclusions
11:15 - 11:45	*coffee break*
11:45 - 13:00	Tomas Undabeytia - *Conventional & new water purification technologies* / Modified clay minerals and their use as filtration materials for water purification
13:15 - 14:45	*free lunch time*
14:45 - 15:45	Shlomo Nir and Ido Gardi – *Water purification experiences by using modified clay materials*
15:45 - needed time	Tomas Undabeytia, Ido Gardi and Shlomo Nir – *Filtration experiments in laboratory and pilot*
Thursday 15th	
9:30 - 11:15	Ourania Katsara - *Writing and critical thinking: topic and discussion, cause and effect, comparison structures, problem and solution structures, exemplification and cohesion* / Unity, Coherence, Referencing
11:15 - 11:45	*coffee break*
11:45 - 13:00	Serge Chiron - *New approaches in advanced oxidation processes for water treatment* / Experiences in Montpellier
13:00 - 14:45	*free lunch time*
14:45 - 16:45	Vincent Goetz and Monica Brienza - *New approaches in advanced oxidation processes for water treatment*/ Experiences in Perpignan

Friday 16th	
Workshop	New challenges in water cleaning and recycling: needs, experimentation and future perspectives in Mediterranean Countries
9:00 – 9:30	*Registration of participants*
9:30 - 10:00	Sabino A. Bufo, Presentation of Nanowat project
10:00 - 11:00	Authorities' communications
11:00 – 11:30	*coffee break*
11:30 - 13:00	Presentations by Companies and Experts
13:00 - 14:00	*buffet lunch*
14:00 - 15:00	Selected research presentations by *Ph.D* students
15:00 - 16:30	Discussion and closure remarks