ADVANCED STUDY COURSE

"INNOVATIVE TECHNOLOGIES AND MATERIALS FOR THE CONSERVATION OF MONUMENTS"

Athens, 8 - 20 December 2003

Announcement

5th Framework Programme
ENERGY, ENVIRONMENT AND SUSTAINABLE DEVELOPMENT
Key Action: CITY OF TOMORROW AND CULTURAL HERITAGE

Coordinated by: **NATIONAL TECHNICAL UNIVERSITY OF ATHENS**
Funded by: **EUROPEAN COMMISSION – RESEARCH DIRECTORATE-GENERAL**
Sponsored by various technical, construction and industrial partners

A N N O U N C E M E N T

The Course aims at the promotion of Education on Science and Engineering regarding ***innovative conservation strategies***, ***compatible restoration materials***, ***weathering mechanisms***, ***environmental management*** *and* ***planning*** *for the* ***Protection*** *of* ***Cultural Heritage****.*
40 European students *(10 of which of Greek nationality) of different scientific background will attend a* ***14 days Course*** *of postgraduate level, integrated by a Conference on "****Innovative Technologies for the Protection of Cultural Heritage****".*

Topics

- *Techniques and materials for earthquake protection of monuments*
- *Assessment of damage caused by air pollutants*
- *Non destructive techniques for "in situ" damage assessment*
- *Techniques and materials for treating rising damp and soluble salts*
- *Design, application and assessment of compatible restoration mortars*
- *Assessment of building materials' susceptibility to decay factors*
- *Techniques and materials for cleaning interventions*
- *Tourism, urban planning and environmental management aspects concerning Cultural Heritage*
- *Marketing, finance, research aspects in conservation and restoration industry*

Qualifications

- ***University degree*** *on Conservation, Architecture, Engineering (Chemical, Civil, Survey, Materials, Mineral, Land and Urban Planning, Informatics, Environmental Engineering et al.), Chemistry or any other relevant field*
- ***European nationality***
- ***Age*** *less than* ***35***
- *Fluency in* ***English*** *language* ***(formal language)***
- ***Two references****, testifying the relevant studies or expertise of the applicant to the conservation of monuments and to the protection of Cultural Heritage*

Criteria for Selection of Students who comply with the Qualifications

- *Overall grade obtained in the degree or diploma*
- *Grades obtained during the degree or diploma in specific subjects relevant to the Course*
- *Performance in previous degree or diploma dissertation or other studies of theoretical nature*
- *Any relevant professional or research activity*
- *Publications in scientific journals of the relevant field*
- *General skills as described by the candidate's referees*
- *Justification of intent for participation*

Final Selection

The final selection of students will be made on 22/9/2003 in Rhodes, Greece by the Technical Scientific Committee, in cooperation with the EU Scientific Officer. The names of the selected students will be published via the web within a week. The Technical - Scientific Committee consists of the following members:

Prof. A. Moropoulou

Prof. L. Binda

Prof. G. Biscontin

Prof. A. Nappi

Prof. R. Van Grieken

Supplies

- *14 days Course at National Technical University of Athens, free of charge*
- *Accommodation by NTUA*
- *Field visits*
- *Travel grant for 10 students after selection procedure, according to submitted justification letter and financial documents*

Scientific Board - Main Lecturers

Prof. Antonia Moropoulou *- National Technical University of Athens - Greece*

Prof. Luigia Binda *- Polytechnic of Milan - Italy*

Prof. Guido Biscontin *- University Ca Foscari of Venice - Italy*

MSc. Emmanouil Chaniotakis *- TITAN Cement Company S.A. - Greece*

Dr. Guido Driussi *- Arcadia Ricerche s.r.l. - Italy*

Prof. Mustafa Erdik *- Bogazici University - Turkey*

Dr. Ing. Berndt Fitzner *- RWTH Aachen University - Germany*

Dr. Vassiliki Leontari *- Municipality of Athens Development Agency - Greece*

Dr. Charoula Malami *- Hellenic Cement Research Center Ltd - Greece*

Prof. Alfonso Nappi *- University of Trieste - Italy*

Prof. Christina Sabbioni *- Italian National Research Council - Italy*

Prof. Rene Van Grieken *- University of Antwerp - Belgium*

C O U R S E T I M E T A B L E

Monday 8/12/2003

Assessment of building materials' susceptibility to decay factors [3x1 ½ hr]
Main Lecturers: Prof. A. Moropoulou, Prof. C. Sabbioni, Dr.-Ing. B. Fitzner

Non-destructive techniques for "in situ" damage assessment [3x1 ½ hr]
Main Lecturers: Prof. A. Moropoulou, Prof. A. Nappi, Dr.-Ing. B. Fitzner

Tuesday 9/12/2003

Assessment of damage caused by air pollutants [3 hr]
Main Lecturer: Prof. R. Van Grieken

Techniques and materials for treating rising damp and soluble salts [2x2 hr]
Main Lecturers: Prof. G. Biscontin, Prof. A. Moropoulou

Techniques and materials for cleaning interventions [3 hr]
Main Lecturer: Prof. G. Biscontin

Wednesday 10/12/2003

Design, application and assessment of compatible restoration mortars [4x2 + 1 hr]
Main Lecturers: Prof. L. Binda, Prof. A. Moropoulou, Dr. G. Driussi, Dr. Ch. Malami, MSc. E. Chaniotakis

Thursday 11/12/2003

Techniques and materials for earthquake protection of monuments [2x2 hr]
Main Lecturers: Prof. M. Erdik, Prof. A. Nappi

Tourism, urban planning, and environmental management aspects concerning cultural heritage [3 hr]
Main Lecturer: Dr. V. Leontari

Laboratory: Earthquake Engineering [2 hr]
Director: Prof. P. Karydis

Friday 12/12/2003

Marketing, finance, research aspects in conservation and restoration industry [3x2 hr]
Main Lecturers: Dr. G. Driussi, Dr. Ch. Malami, MSc. E. Chaniotakis

Laboratory: GIS Applications [2 hr]
Director: Prof. L. Tsoulos

Monday 15/12/2003

Laboratory: Non - Destructive Techniques [2 hr]
Director: Prof. A. Moropoulou

Laboratory: Instrumental Techniques [2 hr]
Director: Prof. A. Moropoulou

Tuesday 16/12/2003

Laboratory: Special Topics [Selection of 3 - 4 lab sessions totalling 8 hr]
Directors: Prof. P. Karydis, Prof. A. Moropoulou, Dr. V. Leontari, Dr. Ch. Malami, MSc. E. Chaniotakis

- Phenomena of rising damp
- Mortars for compatible restoration interventions
- Susceptibility of building materials to decay factors
- Cleaning interventions
- Environmental management
- Non - destructive techniques for characterisation and assessment of materials
- Effect of air pollutants on materials' decay
- Earthquake protection tests on shaking table
- Applications of marketing and finance principles in monuments' conservation

Wednesday 17/12/2003

Field Visits to Museums
Directors: V. Chandakas (Gen. Director for the Restoration, Museums and Technical Works of Hellenic Ministry of Culture), A. Athanasiadou (Director of Museum Studies of Hellenic Ministry of Culture), D. Konstantios (Director of Byzantine Museum)

- National Archaeological Museum of Athens [2 hr presentation + 3 hr visit]
- Byzantine Museum of Athens [1 hr presentation + 3 hr visit]

Thursday 18/12/2003

Field Visits to Archaeological Sites
Directors: Commission for Maintenance of Monuments of Acropolis, Association "Unification of the Archaeological Sites of Athens"

- Acropolis of Athens [1 hr presentation + 3.5 hr visit]
- Unified Archaeological Sites of Athens [1 hr presentation + 3.5 hr visit]

Friday 19/12/2003 & Saturday 20/12/2003

CONFERENCE: INNOVATIVE TECHNOLOGIES FOR THE PROTECTION OF CULTURAL HERITAGE