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UNIVERSITÀ DEGLI STUDI DI PALERMO
DEPARTMENT OF CIVIL, ENVIRONMENTAL AND AEROSPACE ENGINEERING

Palermo, 17th November 2011

RECRUITING ANNOUNCEMENT

- As partner of the **Master "Expert in monitoring, analysis and management of environmental data - MAGDA"** under the Operational Programme 2007/2013 - ESF Region of Sicily (Axis IV - Human Capital) CIP 2007.IT.051.PO.003/IV/I2/F/9.2.14/1362, CUP No. B75C10001070009, the Company AIRA Ltd in partnership with University of Palermo needs to recruit a Professor for the module detailed below.
- With regard to the Operational Programme of the ESF Convergence objective of the Sicilian Region 2007/2013 approved by European Commission, Decision EC (2005) 6722 of 17 December 2007;
- Given the public notice of the regional cultural heritage, environmental and public education, Education Department, Region of Sicily, for planning university Master's Degree, published on GURS No.32 of 10.07.2009 and the Handbook for the implementation of the ESF Region of Sicily v.4 June 23, 2011;
- With regard to the Intra Consortium Agreement between the University of Palermo, AIRA Ltd. and MCG Manager Consulting Group signed on 1st January 2011;
- Given the decision of the Academic Senate meeting of 20th October 2009 on which was approved the Master's Degree in "Expert in monitoring, analysis and management of environmental data - MAGDA";
- Given the Decree D.D.G. No 30.07.10 3285/III/IS for the approval of master list of projects eligible for funding, including the Master with No ID Code 2007.IT.051.PO.003/IV/I2/F/9.2.14/1362 having the title "Expert in monitoring, analysis and management of environmental data - MAGDA", presented in respect of Axis IV of the Human Capital Operational Programme;
- Given the specific objective of the 2007-2013 ESF I2, following the public notice, above mentioned, for the realization of the Master's Degree College, in partnership between the University of Palermo and the companies AIRA Ltd. MCG Manager Consulting Group;
- Given the authorization by the Region of Sicily No. 685 of 5th May 2011 to start the Master "Expert in monitoring, analysis and management of environmental data - MAGDA " CIP 2007.IT.051.PO.003/IV/I2/F/9.2.14/1362, CUP No. B75C10001070009;
- Having to define the teaching staff to carry out teaching activities of the course modules: **A1: Analysis and Processing of DEM for hydrological and surface energy budget application** (20 hours); and **A2: Monitoring shallow water hydrodynamics** (15 hours);
- Keeping in mind that the assignments to be given, as required by the approved project, are a necessary condition to ensure the realization of the Master itself ;
- Once established the expenditure on the budget line;
- For such reasons, the operating partner AIRA Ltd

ISSUES

The following notice regarding the comparative selection procedure for teaching the following modules:

A1 Analysis and Processing of DEM for hydrological and surface energy budget application (20 hours).

The course introduces participants to the understanding and application of GIS-based terrain analysis principles and tools within hydrologic and geomorphic applications.

The main topics will be:

DEM: data source and structure; importance and use of elevation data in geomorphology and hydrology; quality assessment of elevation data; DEM correction: reasons and procedures (filling etc.. algorithms); automatic procedure (flow direction, flow accumulation, flow length for identification of watershed and extraction of channel network (D8 - Dinf - multiflow direction and other algorithms); use of software packages of Tarboton - TauDEM or TARDEM); the problem of identification of CIT (channel initiation threshold); applicative example.

The expected gross fee is equal to € 73,00 per hour for a total forecast of € 1.460,00. The fee is to be considered gross and inclusive of all costs and tax expenses to be charged to the person and to the company compatibly to the Tax Law applicable.

Any travel expenses will be reimbursed on the basis of the budget line approved by the project which will be communicated to the person selected.

In order to be selected, the minimum requirements are:

1. Bachelor of Science in Agricultural Engineering.
2. Excellent informatics skills: Office, Matlab, ArcGIS
3. Excellent knowledge of English language.

The selection will be based on the evaluation of the following academic qualifications:

- Master of Science in Engineering field
- PhD in Civil and Environmental Engineering
- Postdoctoral research activities
- ISI journal articles relative to environmental, hydrologic and geomorphologic topics.
- Working and teaching experiences in foreign universities.

All the actions to guarantee the success of the course must be done according to indications received by Professor Goffredo La Loggia, Master's Director.

Academic qualifications	Score
Master of Science in Engineering field	4 points
PhD in Civil and Environmental Engineering	10 points
ISI journal articles relative to environmental, hydrologic and geomorphologic topics	1 point for each journal article
Postdoctoral research activities	1 point for each year
Working and teaching experiences in foreign universities.	3 point for each year

PLACE OF PERFORMANCE

The activities will take place at the University of Palermo, Department of Civil, Environmental and Aerospace Engineering, Building 8, Viale delle Scienze – Palermo.

SUBMISSION, TERMS AND METHODS

Competitors having the general and professional requirements, as listed in the application form attached to this announcement, may apply for admission to the comparative procedure, accompanied by a signed curriculum vitae, the useful documentation for the evaluation, a photocopy of a valid identity document, drawn up on the application form in Annex A. The request must be received in a sealed envelope entitled to the company AIRA Ltd, at the University of Palermo – Dipartimento di Ingegneria Civile, Ambientale e Aerospaziale, Edificio 8, Viale delle Scienze, 90128 Palermo, absolutely no later than 1:00 pm on tenth day following the date of publication of the notice on the company's website (www.airasrl.it) and on the project website (magda.unipa.it), hence, no later than 1:00 PM on 28th November, 2011, as follows:

- a) by registered mail to AIRA Ltd, at the University of Palermo - Dipartimento di Ingegneria Civile, Ambientale e Aerospaziale, Edificio 8, Viale delle Scienze, 90128 Palermo;
 b) by e-mail with return receipt to goffredo.laloggia@unipa.it and msola@airasrl.it.

Are not eligible candidates whose applications are received for any reason, after that period.

The envelope or the object of the electronic e- mail must bear the words "Master's Degree "Expert in monitoring, analysis and management of environmental data - MAGDA" – Selection of a teacher for the module: A1 - Analysis and Processing of DEM for hydrological and surface energy budget application - Director Prof. Goffredo La Loggia.

A2: Monitoring shallow water hydrodynamics (15 hours)

The course introduces participants to the understanding and application of Flow measurements methods in shallow water bodies and advanced analysis of hydrodynamic data.

The main topics will be: **Flow measurements in fluvial conditions:** the ADCP principle and technology.. **Flow measurements in lakes and lagoons:** various ADV technologies. 2D and 3D devices, time series filtering and decomposition, statistical analysis. Wind measurements and wind profile as well as wind field reconstruction theories. Effect of shallowness. Pressure correction, estimation algorithms for the main wave parameters. **Suspended solids**, bed-load transport, bed material composition, bed forms monitoring principles and methods in rivers.. Estimation of SS fluxes. Surveying the physical characteristic of the bed surface by penetrometering. **Applicative examples.**

The expected gross fee is equal to € 73,00 per hour for a total forecast of € 1,095.00. The fee is to be considered gross and inclusive of all costs and tax expenses to be charged to the person and to the company compatibly to the Tax Law applicable.

Any travel expenses will be reimbursed on the basis of the budget line approved by the project which will be communicated to the person selected

In order to be selected, the minimum requirements are:

1. M.Sc. in Civil Engineering;
2. Doctorate;
3. Research experience in the hydrodynamics of surface waters, measuring and modelling wind-induced lake currents and sediment motion, measuring and modelling flow, mixing and sediment transport in rivers with compound channel, modelling floodplain inundation;
4. Excellent knowledge of English language.

The selection will be based on the evaluation of the following academic qualifications:

- Professorship in hydraulic related disciplines;
- Experience in Lecturing Fluid Mechanics in English, Base and Advanced Hydraulics, Hydroinformatics.
- Coordination of applied research projects in hydrodynamics of lakes and rivers
- Publications on peer reviewed ISI journals.

All the actions to guarantee the success of the course must be done according to indications received by Professor Goffredo La Loggia, Master's Director.

Academic qualifications	Score
Professorship in hydraulic related disciplines;	4 points
Lecturing experiences in English	1 point for each course up to 10 points
Coordination of research projects in water bodies hydrodynamic characterization	3 points for each project up to 12 points
Publications on peer reviewed ISI journals	1 point for each ISI publication in subjects related with hydraulic and hydrology, up to 15 points

PLACE OF PERFORMANCE

The activities will take place at the University of Palermo, Department of Civil, Environmental and Aerospace Engineering, Building 8, Viale delle Scienze – Palermo.

SUMBISSION, TERMS AND METHODS

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The envelope or the object of the electronic e-mail must bear the words "Master's Degree "Expert in monitoring, analysis and management of environmental data - MAGDA" – Selection of a teacher for the module: A2 - Monitoring shallow water hydrodynamics - Director Prof. Goffredo La Loggia.

ADVERTISING

This notice, today, is published, as required, on the company website AIRA SRL (<http://www.airasrl.it/content/master-II-livello-magda>) , on the Master website (magda.unipa.it) and on the website of the Sicilian Region - Department of Education www.siciliafse.it.

The Legal Representative

A handwritten signature in black ink is written over a circular official stamp. The stamp contains the text "UNIVERSITA' DI PALERMO" at the top, "DIPARTIMENTO DI INGEGNERIA CIVILE, AMBIENTALE E AEROSPAZIALE" around the inner edge, and the identification number "03924140829" at the bottom.