

June 14, 2010

PERSONNEL CONTRACTS WITH CPAN PARTIAL FINANCIAL SUPPORT

The CPAN project of the CONSOLIDER-INGENIO 2010 program announces 8 contracts of personnel with partial financial support from CPAN. The proposed contracts are meant to provide technical support to the groups' research activities in a series of priority lines within the strategic actions of the CPAN Project. A detailed description of these contracts, 6 university graduate degree and 2 university intermediate degree, can be found in Annex I. The maximum duration of the CPAN financial support assigned to the appointments will be two years and in any case it will be limited by the ending date of the project (29th November 2012). Only the contracts starting before November 29, 2010 will be able to be financed for two complete years.

Please, notice that the contracts with references CPAN10-TM02 and CPAN10-TM03 will be granted only for one annuity.

The groups participating in the CPAN Project will make an effort to give publicity to the present announcement in order to optimize the number and quality of the applications received.

1) Amount and nature of the financial support

The CPAN financial support for each of the contracts specified in Annex I will have the aim of co-financing the total contract cost, understood to be the sum of the net retribution plus the Social Security company fee. The beneficiary entities will hire the selected candidates in accordance with the current labour legislation.

For the positions that require a university graduate degree, the amount of the CPAN financial support will be 30.000 euro per year, and the minimum annual retribution they will receive, which must be indicated in the contract, is 27.000 euro (brut salary).

For the positions that require an intermediate university degree, the amount of the CPAN financial support will be 25.000 euro per year, and the minimum annual retribution he/she will receive, which must be indicated in the contract, is 22.000 euro (brut salary).

The remaining co-financing of the contract will be the responsibility of the beneficiary groups and organisms, who will assume the cost of retribution increments of the hired

personnel in the following years, as well as the repercussions of any increases in the Social Security fee.

The beneficiary entities are obliged to put at the appointee's disposition all the installations and material means needed for the normal development of their work, as well as to guarantee the same rights and benefits enjoyed by the entities' personnel of similar category.

In case of interruption of the contract, the beneficiary entity and the appointed personnel are obliged to communicate such interruption to the CPAN Office within 15 natural days from the date of the interruption.

2) Candidate requisites

People whose contract is co-financed through this aid must have a graduate or intermediate university degree as required by the contract to which they apply. Candidates must be in possession of the required degrees by the date in which the application is presented.

3) Formalization and Application Process

Applications will be presented by the candidates through an internet application which can be accessed from the WEB page of the CPAN project: <http://www.i-cpan.es>. Applications must include:

- 1) The candidate's personal information.
- 2) The type of contract to which the candidate opts.
- 3) The candidate's Curriculum Vitae, including a scanned copy of the academic certification and university degree.

Applications must be presented from June 15, 2010 to June 30, 2010 (both inclusive).

The beneficiary group shall complete the application with a report about the optimal fitness of each candidate for the foreseen activities, assigning a tentative priority order to each candidate. These reports will also be processed through the internet application installed in the CPAN WEB page. The deadline for these reports is July 8, 2010.

4) Evaluation of applications

The evaluation of applications will be done by an Evaluation Commission named by CPAN's Executive Committee. The referred Commission will study and order the applications according to the following rules:

- 1) Compliance of the candidate to the development of the tasks to be performed, as function of the technical skills required.
- 2) CV of the candidate.

The resolution with the list of selected candidates will be published in CPAN's web page. The Evaluation Commission could propose, if needed, a list of supplants.

The proposed candidates must confirm in a period of 15 natural days their acceptance by means of e-mail which must be sent both to the receiving group as well as to the CPAN Office. If no notification is received within that period, the CPAN's Executive Committee will be entitled to select the following candidate in the list of supplants.

5) Payment of the CPAN financial support and follow-up

In general, the assigned funding will start on the date in which the contract between the candidate and the corresponding organization starts, either after the publication of the resolution or before that, in this last case always having as limitation the date in which the period for presenting applications is open.

Payments will be done on an annual basis to the corresponding organizations. The payment procedures for the first year will start after the publication of the resolution as soon as the contract being financed is presented. The payment for the following year requires the previous presentation (and positive evaluation by CPAN's Executive Committee) of a scientific-technologic report resuming the activities performed, signed by the contracted person and the IP responsible for the corresponding CPAN's group.

Any publication or result related with the activities performed under this program must contain a reference to the CPAN financial support.

ANNEX I: Relation of Contracts

Reference: CPAN10-TS04

“Development of technologies in atmospheric monitoring for the Pierre Auger Observatory.”

CPAN beneficiary group:

Universidad Complutense de Madrid

Candidate requirements:

Candidates should have a University degree in Engineering or Physics. Previous expertise on managing and development of electronic and optical equipments will be specially valued. The candidate should confirm her/his availability to travel to the Pierre Auger Facilities in Argentina and USA.

Job profile:

The candidate will be fully integrated in the Pierre Auger collaboration. The labour will be to develop monitoring technologies in order to reduce the systematic error in the determination of the energy deposited by the cosmic rays in the atmosphere. CLF systems will be used for the optical calibration of the telescopes. The profile also includes tasks related to the precise determination of "- fluorescence yield-".

Information and contact:

Fernando Arqueros Martínez; e-mail: arqueros@gae.ucm.es

Reference: CPAN10-TS05

“Development and application of new x-ray gaseous detectors to the search of axions in the CERN Axion Solar Telescope (CAST)”

CPAN beneficiary group:

Universidad de Zaragoza.

Candidate requirements:

Degree in physics or electronics engineer. General experience in laboratory will be valued, and more specifically in experimental particle physics, in particular with detectors and data acquisition systems.

Job profile:

The candidate will participate in the activities the group is carrying out within its experimental program on axion and neutrino physics, especially those related with the CAST experiment at CERN, in which the Zaragoza group has a leading role. The period encompassed by the contract includes the last data taking phase of the original program, as well as a transition phase in which the collaboration foresees an intense R&D activity of (among other things) x-ray low background detectors based on Micromegas technology. The last prototypes developed by the group and its collaborators are showing evidence for ultra-low background levels, although there remain several aspects to understand. The development work proposed aims at studying and consolidating that evidence, and is part of the overall effort of the collaboration to define a new generation of axion helioscopes, which eventually will yield a new experiment to go well beyond CAST sensitivity. The candidate will contribute to the current operation and data taking of the detectors installed at CERN, as well as to the development of enhanced prototypes.

Information and contact:

Igor G. Irastorza; e-mail: Igor.Irastorza@cern.ch

Reference: CPAN10-TS06

“Physicist or engineer, specialized in distributed scientific computing”

CPAN beneficiary group:

Universidad Illes Balears.

Candidate requirements:

Candidates should have either an Engineering or Physics degree, with accredited experience in GRID computing entourages, distributed simulation platforms, Linux systems management, and development tools (Fortran, C++, Java, MPI). Any experience in technology transfer between the University and the private sector will be positively appreciated. High level in English is mandatory.

Job profile:

The candidate will participate in the research team about distributed-platform based research and Grid computing of the IAC3-UIB (Institute for Applied Computing with Community Code). Their task will include:

- Definition of a Grid architecture which can integrate the distributed simulation software of the IAC3-UIB
- Study of the computational requirements of the current projects of the group and establishing cooperation links with different supercomputing centers.
- Administration of the clusters of the group and coordination of the access to external resources. Definition of the requirements for the next cluster generation.
- Coordination of joint projects with other centers for adapting the IAC3 simulation flow platform (Simflowny) to different physical problems, including development and testing of new modules fitting the requirements of the partners.
- Coordination with private institutions related to technology transfer processes.
- Coordination of the implementation, validation and verification of the software developed in the domains of Grid technology integration and MPI-based distributed computing.

Information and contact:

Carles Bona, cbona@uib.es.

Reference: CPAN10-TS07

“Final phase of design of components for particle accelerators and organization of their mass production.

CPAN beneficiary group:

CIEMAT, Madrid

Candidates requirements:

University degree in Industrial, Aeronautical or Naval Engineering. Previous expertise in the organization of production, machining and/or assembly of precision elements will be valuable, as well as in calculation and design of electromechanical components. Good knowledge of English is mandatory.

Job profile:

The Accelerator Unit at CIEMAT is in charge of organizing part of the spanish contribution to the following scientific facilities: XFEL, FAIR e IFMIF. Since 2008, the Unit is working in the design, manufacture and tests of the prototypes. The selected candidate will organize the mass production of the components which must be installed at the above mentioned facilities. First, he/she must analyze the proposed designs and the results of the prototypes, for their mass production. Then, the candidate will contact the potential industrial suppliers and will be in charge of the processing and following-up of the contracts adjudication processes.

On the other hand, the selected candidate could be in charge of the engineering design and follow-up the manufacture of the components for the developments of the Unit of Accelerators.

Information and contact:

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Referencia: CPAN10-TS08

“IFIC Medical Physics activity support professional”

CPAN beneficiary group:

Instituto de Física Corpuscular, IFIC.

Candidate Requirements:

Industrial Engineer, specialized in mechanics, with experience in working in research projects with multidisciplinary teams. The candidate must have a good knowledge in designing skills and implementation of mechanical systems related to electronical detectors and medical nuclear physics as well as experience in positioning and movement of mechanical systems using motors in equipment used for humans will be also valuable.

Job profile.

The successful candidate will join the Medical Physics group at the IFIC to participate in the mechanical adaptation designs and implementation of their instrumentation for its final use (production of the ergonomic and functional designs for their use).

The IFIC takes part in the European project MAMMI (Mammography with Molecular Imaging), where it has been developed a PET system (Positron Emission Tomography) dedicated to explorations of breast cancer. The first task of the engineer would involve the mechanical design of the PET mammography scanner developed within the Mammi Project and, to complete its development. The engineer will also participate in the mechanics design of a PET scanner for small animals. This unit is based on continuous LYSO crystals that are read by SiPMs, plus a Compton telescope for monitoring patient dose during hadron therapy, based on LaBr and SiPMs detectors within the European project ENVISION. The engineer will be involved in the European project MADEIRA, by designing internal probes based on the Compton effect with bio-compatible materials and low density.

Information and contact:

Jose María Benlloch; Jose.Maria.Benlloch@ific.uv.es>

Reference: CPAN10-TS09

“University Degree at CNA for Technology Transfer of Applications on Accelerators.”

CPAN beneficiary group:

Centro Nacional de Aceleradores

Candidate requirements:

University Degree in Physics or Engineering. Experience in analytical techniques with accelerators will be additionally appreciated, as well as other activities similar to those planned to be developed during the period of the present contract.

Position profile:

The candidate must enhance the collaboration of the CNA with companies and other research organizations, working as a link between the companies and the CNA researchers. Specifically, the candidate must collaborate in the current activities of collaboration between CNA and companies:

- Application and development of irradiation techniques relevant for the performance of tests on aerospace materials.
- Quantification and distribution of impurities on nuclear industry samples.
- Modification and characterization of materials of technological interest.
- Formation of magnetic semiconductor by ion implantation.
- Use of irradiation techniques on electronic circuits for failure control.
- Design and development of technological devices for their use in particle accelerators, as high precision goniometers, data acquisition systems to obtain compositional mappings, etc.
- Analysis of cultural heritage samples.

Information and contact:

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Reference: CPAN10-TM02

“Technology Transfer Support at the Instituto de Física de Cantabria (IFCA)”

CPAN beneficiary group:

Instituto de Física de Cantabria (CSIC-UC)

Candidate requirements:

Engineering Technical Degree in Electronics, Photonics or Telecommunication. Qualified candidates should have a demonstrated experience in at least two of the following areas: instrumentation programming, electronic design; data acquisition hardware and software (LabView, C, C++, SCADA systems), photonics devices and implementation of quality management systems in research laboratories. Experience in previous similar positions will be positively rated.

Job profile:

The successful candidate will be expected to support the current Technology Transfer contracts between the IFCA and the Industry and contribute to the expansion of the quality management system. The position is based at the Instituto de Física de Cantabria and traveling may be required.

This contract will have an initial duration of one year. The Executive Committee will take in consideration its renovation after studying the obtained results.

Information and contact:

Iván Vila Álvarez; email: vila@ifca.unican.es

Reference: CPAN10-TM03

“R+D for the dipole separator of ELISe@FAIR. Fast-timing measurements”

CPAN beneficiary group:

Universidad Complutense de Madrid

Candidate requirements:

Minimum academic level: bachelor in electronics engineering informatics or in physics knowledgeable in electronics and informatics. The willingness to travel and spend training periods abroad will be highly rated.

Job profile:

The ELISe experiment at FAIR will allow studying electron scattering off exotic nuclei in collider mode. The main experimental device for ELISe will be a high resolution electron spectrometer with a pre-deflector magnet and two vertical dipoles. The technician will be required to perform R+D tasks for the pre-deflector magnet of ELISe in collaboration with companies working on the field. He or she will also contribute to R+D and setup of ultra fast scintillators suitable for fast-timing measurements with detector arrays at new facilities. The applicant should be available to travel outside Spain for several months (to CERN, GSI, KVI or other facilities) in order to acquire adequate training on magnetic elements design for electron spectrometers.

This contract will have a duration of one year.

Information and contact:

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