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国际原子能机构
International Atomic Energy Agency
Agence internationale de l'énergie atomique
Международное агентство по атомной энергии
Organismo Internacional de Energía Atómica

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In reply please refer to: **C7-RER/0/039/002**
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2015-09-24

Subject: Invitation to a Regional Training Course on Recent Developments in Irradiation Technology for CH Preservation and Restoration for Junior Specialists, Magurele - Ilfov, Romania, 7 - 11 December 2015.

Dear National Liaison Officer,

I am pleased to invite you to send nominations of suitable candidates to participate in the above-mentioned training course under the framework of TC Project RER/0/039 – Extending and Diversifying the Application of Nuclear Technology in Cultural Heritage. The purpose of the training course and related information are outlined in the attached Prospectus.

For candidates who are selected by the IAEA, the IAEA will cover the cost of return international travel from the home country to Magurele - Ilfov, Romania and provide a stipend for the duration of the training course in line with IAEA rules and procedures.

Please submit nominations to the IAEA online through the Technical Cooperation Department's InTouch system (<http://intouch.iaea.org>). Only if this is not possible, nominations may be submitted on the Nomination Form for Training Course available on the IAEA website: <http://www.iaea.org/technicalcooperation/How-to-take-part/train-course/index.html>. Completed forms should be endorsed by relevant national authorities and sent to the Programme Management Officer for this project, Ms Alessia Rodriguez y Baena (IAEA Official Fax: +43-1-26007 or E-Mail Official.Mail@iaea.org), through the official channels, i.e. the designated National Liaison Office for IAEA matters, not later than **09 October 2015**.

Yours sincerely,

Martin Krause

Director

Division for Europe Department of Technical Cooperation

Enclosure: Prospectus

International Atomic Energy Agency

Regional Training Course on Recent Developments in Irradiation Technology for CH Preservation and Restoration for Junior Specialists

PROSPECTUS

- Project Number & Title:** RER/0/039 - Extending and Diversifying the Application of Nuclear Technology in Cultural Heritage
- Place (City, Country):** Magurele - Ilfov, Romania
- Dates:** 7 – 11 December 2015
- Deadline for Nominations:** 9 October 2015
- Organizers:** The International Atomic Energy Agency (IAEA) in collaboration with the Government of Romania through the IRASM Radiation Processing Centre and National Institute of Physics and Nuclear Engineering "Horia Hulubei" – IFIN-HH
- Host Country Organizer:** Mr Ioan Valentin Moise
National Institute of Physics and Nuclear Engineering "Horia Hulubei"
P.O. Box MG-6, Str. Atomistilor 407
77125 Magurele
ROMANIA
- Tel.: 0040 21 4042320
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EMail: vmoise@nipne.ro
Internet: <http://www.nipne.ro>, www.irasrn.ro
- Language:** English
- Purpose:** The purpose of the training course is to provide participants with technical knowledge and practical demonstrations of recent developments of irradiation technology used for the preservation of cultural heritage objects. The underlying principles, advantages and limitations as well as selected applications will be presented. Emphasis will be on providing detailed information on relevant aspects of radiation technology, radiation microbiology, radiation effect on cellulosic materials; radiation polymerization and dosimetry for process control as applied to preservation of CH objects.

Expected Output(s):

The expected outputs of the training course are:

- Increased knowledge on recent developments in irradiation technology for CH preservation, including advantages and limitations.
- Increased technical skills on radiation processing technology, and associated techniques used for the preservation of CH objects;
- Increased knowledge on preservation of archived manuscripts;
- Improved ability to formulate new proposals for the applications of nuclear technology in support of the cultural heritage community.

Scope and Nature:

The training course will include presentations, lectures and practical demonstrations covering the topics related to the use nuclear technology for the preservation of cultural heritage objects, with emphasis on:

- Radiation microbiological aspects for treatment;
- Radiation effect on basic materials that constitute the cultural artefacts;
- In-situ polymerization behaviour of monomers used for restoring the CH objects;
- Dosimetry as a process control parameter;
- Data analysis and data interpretation.

The lectures will be supplemented by relevant demonstrations and experiments using irradiation facilities.

It is expected that the participants will present their own experience (*ca.* 5 min each) on the use of applications of radiation processing technology for the preservation of CH objects.

Background Information:

Previous TC projects (RER/8/015 "Using Nuclear Techniques for the Characterization and Preservation of Cultural Heritage (CH) Artefacts in the European Region", 2009-2011, and RER/0/034 "Enhancing the Characterization, Preservation and Protection of Cultural Heritage Artefacts"(2012-2013) demonstrated that nuclear techniques are exceptionally suitable for non-destructive characterization of cultural heritage artefacts, in support of their conservation/restoration, as well as for their preservation through the use of radiation treatment.

Building on such achievements, project RER/0/039 was designed, inter alia, to expand capacity of cultural heritage-related organizations for characterization / preservation of objects. In particular, .. this regional training course will offer a unique technical capacity building opportunity to junior specialists from across the region, thereby facilitating their effective involvement within national programmes and regional programmes contributing to enhance the preservation of Europe's Cultural Heritage using nuclear technology.

Participation:

The training course is open to 30 participants.

The target countries are those actively involved in the TC project RER/0/039, namely; Albania, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Greece, Hungary, Kazakhstan,

Kyrgyzstan, Latvia, Lithuania, Malta, Montenegro, Poland, Portugal, Republic of Moldova, Romania, Serbia, Slovakia, Slovenia, Tajikistan, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

Participants' Qualifications:

Participants should preferably be junior specialists in chemistry, physics, or engineering working in nuclear research institutions actively involved in projects related to the preservation of cultural heritage objects using radiation processing technology; applications from conservation specialists working in laboratories attached to museums, art galleries, *etc.* will also be given consideration.

Nomination Procedure:

Nominations should be submitted to the IAEA online through the Technical Cooperation Department's InTouch system (<http://intouch.iaea.org>). Should this not be possible, nominations may be submitted on the standard IAEA Application Form for Training Courses (available on the IAEA website: <http://www.iaea.org/>). Completed forms should be endorsed by relevant national authorities and returned to the Agency through the official channels, i.e. the designated National Liaison Office for IAEA Matters. The completed nomination forms should be sent to the Programme Management Officer for this project, Ms Alessia Rodriguez y Baena, through IAEA Official Fax (+43-1-26007) or E-Mail (Official.Mail@iaea.org), not later than **9 October 2015**. Nominations received after this date or which have not been routed through the established official channels cannot be considered.

Administrative and Financial Arrangements:

Nominating Governments will be informed in due course of the names of the candidates who have been selected and will, at that time, be given full details of the procedures to be followed with regard to administrative and financial matters.

Selected participants from countries eligible to receive technical assistance will be provided with a round trip economy class air ticket from their home countries to Magurele - Ilfov, Romania, and a stipend sufficient to cover the cost of their accommodation, food, and minor incidentals. Shipment of accumulated training course materials to the participants' home countries is not the responsibility of the IAEA.

The organizers of the training course do not accept liability for the payment of any cost or compensation that may arise from damage to or loss of personal property, or from illness, injury, disability or death of a participant while he/she is travelling to and from or attending the training course, and it is clearly understood that each Government, in nominating participants, undertakes responsibility for such coverage. Governments would be well advised to take out insurance against these risks.