

Latin-American Network for Education in Nuclear Technology (LANENT)

TERMS OF REFERENCE

1. Need for and benefits of LANENT

1.1. General rationale

Access to nuclear technology is essential not only in order to satisfy the growing demand for energy, but also in such areas as health, industrial and agricultural development and environmental protection. In many countries of the region, nuclear technology can be a catalyst for establishing a culture of science and technology, since use at present of its various applications is less than optimal.

Using nuclear technology requires highly qualified human resources. Many nuclear education and training resources are available in Latin America and the Caribbean, although differences in level can be observed according to the level of development of each country of the region as regards the use of nuclear technology. Lack of human resources is a matter of serious concern in some Member States, while others have developed good educational systems and are in a position to provide education, training and qualified staff.

There is a pressing need to systematically integrate the available nuclear education and training resources in Latin America and the Caribbean. Sharing of resources and information through networks could contribute to improved dissemination of the benefits of nuclear energy. A large number of educational activities being developed in countries of the region could potentially be linked and integrated through the Latin American Network for Education in Nuclear Technology (LANENT).

1.2. Collaboration within the region and beyond, and with the IAEA

A number of Member States have identified similar needs which must be addressed, both for energy production and for other applications of nuclear technology. The Member States with developed nuclear infrastructure have expressed the need to ensure the human resources required for safe operation of existing facilities, future expansion of nuclear power production, and research and development. These States wish to cooperate to share their experiences and capacities.

At the same time, the Member States with less developed nuclear sectors wish to cooperate among themselves and with those having more developed nuclear programmes in order to benefit from knowledge transfer for the region, its sustainable development and capacity building.

While some Latin American and Caribbean Member States would qualify as potential donors of resources and knowledge, others would be in the position of recipients, in some fields. Cooperation between these two groups can be improved through LANENT. Regional knowledge transfer through education and training could come to represent an important pillar for human resources development in Member States.

The creation of networks, distance learning and the use of shared facilities would be fundamental pillars for achieving efficient cooperation in education and training in the context of LANENT. These joint activities are expected to strengthen Member States' national development in education and training in nuclear technology.

LANENT will compliment existing IAEA initiatives by focusing on the area of education and training, will be open to any interested Member State of the Latin America and Caribbean region and will address problems related to nuclear technology, education, training and outreach.

In addition, LANENT could benefit from the experiences gained in already established national and regional education and knowledge networks.

2. Objective

The LANENT network is being established in order to promote, manage and preserve nuclear knowledge and to help guarantee the permanent availability of qualified human resources in the nuclear field in Latin America and the Caribbean, as well as to strengthen the quality of its human capacities for sustainable nuclear technology.

LANENT's objective is to facilitate and improve cooperation in nuclear technology education, training and outreach in the Latin America and Caribbean region through:

- Identifying the educational offerings available in the region;
- Detecting gaps in nuclear education and training in the region;
- Exchanging information, teaching materials and virtual tools for education, training and outreach in relation to nuclear technology, as a non-profit institution;
- Developing educational materials;
- Promoting exchanges of students and teachers;
- Promoting mutual recognition of courses and credits among educational institutions;
- Promoting collaboration among LANENT member organizations and other regional and global networks.

3. Strategy

LANENT will strive to:

- Integrate available resources for education, training and outreach by looking for ways to create synergy with the IAEA and other existing mechanisms;
- Build public awareness of the benefits of nuclear technology and its applications;
- Attract young talents to the nuclear industry, taking into account existing expertise with other professional career options;
- Facilitate access to nuclear education and training;
- Encourage professionals in the nuclear field to share their experience and knowledge with younger generations;
- Foster the use of information and communication technologies for training and education;
- Facilitate linkages and cooperation with other networks;

- Involve industry and governmental and academic institutions.

4. Scope

LANENT is a network of institutions directly associated with nuclear technology education, training and outreach in the Latin America and Caribbean region. Affiliation is open to universities, national educational networks, research centres, governmental entities and other institutions in related areas of activity.

Other organizations and associations interested in nuclear technology education, training and outreach, both in the region and beyond, may contribute to LANENT as collaborating members.

The technical content covers education, training and outreach in the area of nuclear science and technology, in collaboration with other networks working in that area.

5. Affiliation

An institution, organization or national network may apply to become a full member (if it has education or training activities in the area and is based in one of the countries of the region) or a collaborating member (if it has responsibility in areas related to nuclear technology) of LANENT by means of a formal declaration by its authorities or a representative authorized by the country, addressed to the Secretariat or the President of LANENT.

The suitability of the application is examined by the Coordinating Committee, which submits its opinion for consideration by the General Assembly.

6. Organization

Operation of the network is managed by a General Assembly, a Coordinating Committee, a President, a Vice-President and a Scientific Secretariat, as described below.

6.1. General Assembly

The General Assembly entails a designated representative for each full LANENT member, and meets once a year, either virtually or personally. The General Assembly can receive queries by a Coordinating Committee, when deemed convenient, by means of e-mails sent to their members or by means of virtual meetings held in different ways.

The General Assembly is the maximum authority of LANENT and evaluates the annual report of activities, ratifies the acceptance of new members, establishes working groups and their action plans, analyses the annual budget and may amend these terms of reference as it deems necessary.

General Assembly decisions are taken by a simple majority of the representatives of full members present, except in the case of an amendment to the terms of reference, which requires the votes of two-thirds of all full LANENT members. In the event of a tie, the final decision is taken by the current president.

The member of the Coordinating Committee, the President, the Vicepresident, the Scientific

Secretary, the Technical-Administrative Secretary and the representatives designated by the collaborating members participate in the annual meeting of the General Assembly, but they are not entitled to vote unless they represent any full LANENT member.

The designation of a representative to the General Assembly is established by means of a certified written communication addressed to the Secretariat or the President of LANENT. A delegate may represent more than one full or collaborating member from LANENT.

6.2. Coordinating Committee

The Coordinating Committee is made up of one member (National Coordinator), or their alternate, for each country of the region having institutions which are full LANENT members. Each member of the Coordinating Committee is designated by means of a proposal by the respective country's authorized representative to the IAEA addressed to the Technical Administrative Secretariat or the President of LANENT.

The Coordinating Committee performs supervision and general coordination of the activities of the network, reviews the suitability of new applications for membership and proposes working groups and their action plans to the General Assembly.

The National Coordinator is responsible for:

- Represent all the full and collaborating members from his/her country before the Coordinating Committee,
- Organize LANENT activities and coordinate its outreach within his/her country,
- Foster affiliation of new institutions,
- Provide LANENT with the relevant information prepared in the country.

6.3. President and Vice-President

The President and the Vice-President are chosen by the General Assembly from among the members of the Coordinating Committee for a term of two years and may be re-elected to those positions for an immediate consecutive term. After such period has concluded, the Vicepresident will become the president, and the General Assembly will choose a new Vicepresident among the members of the Coordinating Committee.

The President and the Vice-President preside over the Coordinating Committee and the General Assembly. They also serve as spokespersons on all subjects of relevance to LANENT.

6.4. Scientific Secretariat

The Scientific Secretariat is designated by the Nuclear Knowledge Management Section of the IAEA and acts as advisor to the Coordinating Committee and the General Assembly as well as a contact with the IAEA and other entities.

6.5. Administrative Technical Secretary

The Administrative Technical Secretary is composed of a secretary and an assistant secretary. Its function is to support the President and Vicepresident and is designated by the Coordinating Committee by a term of two years, with the possibility of renewal of his/her term.

6.6. Working groups

At an operational level, LANENT activities are carried out by working groups made up of staff of LANENT members. The working groups and their activities are examined by the General Assembly during its annual meeting. Their number, composition and subject area may change according to the decisions of the General Assembly.

Each group has a coordinator, who serves as the contact with the Coordinating Committee and is responsible for submitting an annual report on the undertaken activities to the General Assembly. Moreover, there will be an alternative coordinator per working group.

Glossary

Acronym	Full name
LANENT	Latin American Network for Education in Nuclear Technology Red Latinoamericana para la Educación y la Capacitación en Tecnología Nuclear
NKM	Nuclear Knowledge Management Gestión del Conocimiento Nuclear
IAEA	International Atomic Energy Agency

ANNEX 2011

Working groups and their activities

The activities of the working groups in 2012, in accordance with the objectives laid out in the terms of reference, will include the following topics:

Website, including an education portal

- Creation of a website, including design, operation, additions and changes;
- Coordination of the set-up of an education portal by the IAEA and its maintenance;
- Development of a database for storing information generated by the other working groups;
- Dissemination of activities through the Internet and other communication media;
- Analysis of impact.

Courses and degree programmes

- Identification of courses, degree programmes and other nuclear technology education, training and outreach activities available in the region;
- Identification of distance learning and/or e-learning courses;
- Dissemination of activities via the LANENT website.

Opportunities for cooperation

- Identification of opportunities for student and teacher exchanges;
- Identification of fellowships, subsidies and other forms of financial support for student and teacher exchanges;
- Dissemination of information via the LANENT website.

Educational materials

- Identification and compilation of information on materials for nuclear technology education, training and outreach which are used in the region, in both printed and electronic form;
- Identification of needs as regards translation of materials into the main regional languages;
- Promotion of development of new and innovative materials;
- Dissemination of these materials via the LANENT website, with attention to intellectual property and copyright issues.

Pedagogical and technological support

- Preparation of pilot materials demonstrating the use of pedagogical and technological principles, methods and resources;
- Implementation of a virtual community in the LANENT education portal to provide pedagogical and technological support;
- Organization of on-site and distance workshops on virtual education.