Internship Title

Internship – Development of experimental nuclear reaction database (EXFOR)

Duration of Internship

12 months

Organizational Setting

Department: Nuclear Sciences and Applications (NA)

Division: Physical and Chemical Sciences (NAPC)

Section: Nuclear Data Section (NDS)

Unit: Nuclear Data Service Unit (NDSU)

Main Purpose

The main purpose of the internship is to assist with the development, improvement and/or dissemination of EXFOR database (<http://nds.iaea.org/exfor/>), which collects experimental nuclear reaction data such as cross sections measured in the world. It is developed by 13 Nuclear Reaction Data Centres (<http://nds.iaea.org/nrdc/>) under coordination by the IAEA Nuclear Data Section. The compiled data are reviewed and disseminated to the Member States for energy and non-energy application as well as nuclear science.

Tasks / Key Results Expected

The intern will perform one or some of the following tasks depending on his/her interest:

* Collection of bibliographic, experimental and/or numerical information in the literature.
* Review and/or extraction of key information in EXFOR
* Completeness checking of EXFOR
* Translation of non-English EXFOR source articles to English
* Development of a tool assisting EXFOR compilation by natural language processing (NLP)

Knowledge, Skills and Abilities

* Basic concepts of nuclear reactions.
* Experience with EXFOR or other nuclear reaction data libraries is an asset.
* Programming skill (e.g., Python) is an asset.

Qualifications and Experience

* University degree in nuclear physics, nuclear chemistry, or a related field.

Internships

The IAEA accepts a limited number of interns each year. The internships are awarded to persons studying towards a university degree or who have recently received a degree (see Internship web pages for further details).

The purpose of the programme is:

* To provide interns with the opportunity to gain practical work experience in line with their studies or interests, and expose them to the work of the IAEA and the United National as a whole.
* To benefit the IAEA's programmes through the assistance of qualified students specialized in various professional fields.
* The duration of an internship is normally not less than three months and not more than one year.

Applicant Eligibility

* Candidates must be a minimum of 20 years of age and have completed at least three years of full-time studies at a university or equivalent institution towards the completion of a first degree.
* Candidates may apply up to one year after the completion of a bachelor's, master's or doctorate degree.
* Candidates must not have previously participated in the IAEA's internship programme.
* Excellent written and spoken English essential; fluency in any other IAEA official language (Arabic, Chinese, French, Russian) an asset.
* Candidates must attach two signed letters of recommendation to their application.