

MANAGEMENT SYSTEM DEVELOPMENT TO ESTABLISH AN ALUMNI DATABASE: APPLICATION TO A NUCLEAR INSTITUTION

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ABSTRACT

To pursue the alumni professional evolution has been a long time aspiration. To solve this problem it was developed at IPEN - Nuclear and Energy Research Institute, with support from CNEN - National Nuclear Energy Commission, a system to collect data from graduate alumni. This system was introduced in 2006, during the 30 years celebration of the Nuclear Technology Graduate Program from IPEN, held in association with the University of São Paulo - USP. The main purpose is to follow the career development of the alumni, mainly those not employed in any of the institutes linked to CNEN. The developed system allowed the creation of a database comprising information about the academic degree, professional status and the extension of their contribution to the society. It allows also to follow if the knowledge obtained remained restrict to the Universities and Research Institutes or reached the private companies. The system allows several statistics to be done concerning not only the alumni but also the professors. In this work the first results of the data collection are presented, containing more than 750 responses from a total around 1340 alumni. The final purpose is to upgrade this system to collect data from the several institutes linked to CNEN, either graduate or undergraduate alumni.

1. INTRODUCTION

In the last three years 109.517 Master of Science (M. Sc.) and Doctor of Philosophy (Ph.D.) degrees were granted by brazilian institutions [1]. Not much is known about these alumni, either their actual position or their professional insertion in the society. Some questions remain unanswered: which contribution the knowledge obtained after years of studying brought to the country; which was the professional career orientation followed; the title obtained made any difference or not in the career; the knowledge acquired was kept restrained to universities and research institutes or was applied in private companies. To answer these questions it was developed at IPEN - Nuclear and Energy Research Institute, with support from CNEN - National Nuclear Energy Commission, a system to collect data from graduate alumni.

This system was introduced in 2006, during the 30 years celebration of the Nuclear Technology Graduate Program from IPEN, held in association with the University of São Paulo - USP.

2. SUBJECT

The main purpose of this work is to develop a system to follow the career development of alumni from graduate courses, applying it to the Nuclear Technology Graduate Program from IPEN - Nuclear and Energy Research Institute. Some aspects such as the relevance of the graduate courses for the professional career and the contribution to the society, mainly from those having scholarships during their studies and not employed at any of the institutes linked to CNEN., are considered.

It is also planned to establish a network for the alumni allowing them to contact their former colleagues.

3. METHODOLOGY

To develop this work a search was done to get data about all the Master of Science (M. Sc.) and Doctor of Philosophy (Ph.D.) degree granted by the Nuclear Technology Graduate Program from IPEN. This search was done by consulting the records and producing a table containing, the student and advisor names, the data of beginning and conclusion of the program. The titles and abstracts were digitalized and are available for consulting.

The system was developed through Windows platform and several tests were performed before opening it for alumni.

Since the opening alumni and their advisors had free access to the system, that is updated which time a new information is given. The alumni working at any of the institutes linked to CNEN were invited by phone or email to enter the system. It was also asked to them to invite their former students to access the system and to ask them to do the same invitation to their former colleagues.

The system allows several statistics concerning the program.

4. RESULTS AND DISCUSSION

Till May 2007, 769 alumni entered the system, from a total of 1345. Although the database is not completed, some relevant information could be obtained.

The developed system allowed the creation of a database comprising information about the academic degree, professional status and the extension of their contribution to the society.

Figure 1 presents the opening screen with alumni information already available, presented to alumni entering the system [2].



Figure 1: Opening screen presented to alumni entering the system.

The distribution of Master of Science and Doctor of Philosophy degrees granted till 2006 is presented in Figure 2.

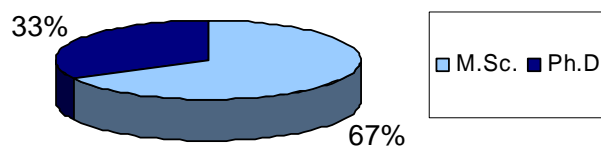


Figure 2: Titles distribution.

Some students developed undergraduate activities before entering their graduate program. As these activities are considered important for a better performance in the graduate program, there was a question about this. The participation in undergraduate activities is presented in Figure 3.

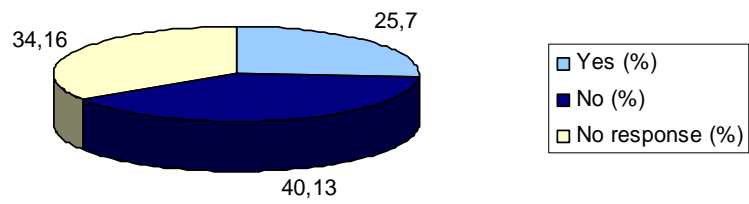


Figure 3: Participation in undergraduate activities (%).

It was also asked if they had any scholarship during their graduate studies. If the answer was positive, it was also asked which was the funding agency granting the scholarship. Figure 4 presents the contribution from several funding agencies.

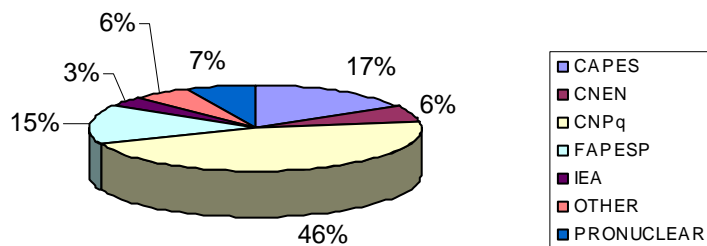


Figure 4: Scholarship distribution among the ones answering this specific question.

It could also be observed from the professional status indicated by 399 who answered this question that 69% of the alumni went to public institutions (either universities or research institutes) and 25% went to private companies (Figure 4).

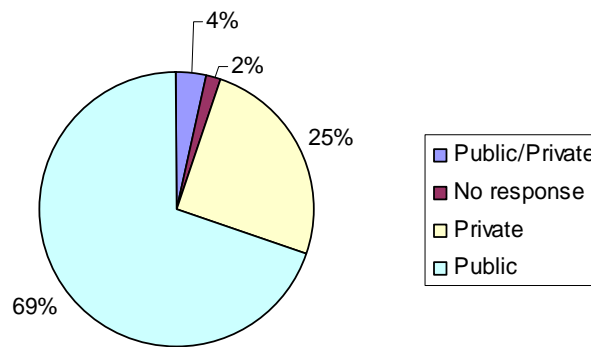


Figure 4: Nature of business activity of company or institution in which the alumni are involved.

5. CONCLUSIONS

The main idea of this work was to recover the evolution of a graduate program by following their alumni status and career. It could be observed that the majority of the alumni entered research institutes or universities, showing the importance of the program, forming specialized human resources for the country.

The data collecting system also allowed the alumni to rebuild a network from their former colleagues.

An extension of this system is under development to allow collecting information from alumni from the other institutes linked to CNEN having graduate courses (CDTN, IEN and IRD).

It is also planned to develop a system to get information about students having undergraduate research activities with scholarship granted by CNEN and CNPq – National Council of Scientific and Technological Development. It is important for the Brazilian agencies to know the number of students having scholarships for undergraduate activities that went to graduate courses. This system is being planned to collect data from all the institutes linked to CNEN having undergraduate students in their laboratories.

Somehow it will be part of the nuclear energy history in Brazil.

REFERENCES

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