

## 1. ENHANCE YOUR RESEARCH SKILLS THROUGH AN INTERNATIONAL POST DOCTORAL FELLOWSHIP

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### Abstract

*There has been an increasing need for improving research potential at Universities and Institutions, to supplement the work done by the leading research Institutions in the country like the IITs. Faculty at engineering educational Institutions need to upgrade their skills both related to teaching and research. It so happens that most of the time, research stops after the acquisition of the Ph.D degree by the faculty and hence nothing much happens either in the Institutions or at the personal level by the faculty. Thus there is a need to rejuvenate and revitalize the research or teaching skills of the faculty, sometime after getting the Ph.D degree. This helps not only in improving the research or teaching skills of the faculty, but also helps in obtaining a new perspective about research, learn or improve upon existing skills, establish contacts and build networks for furthering research both at the personal or professional level. It helps the faculty in learning the art of writing proposals, write technical papers of the highest quality, understand the nuances of independent research and contribute to the development of new research programs, improve existing programs and write proposals and get more funds to further research in a particular field. This paper provides an overview about the author's recent experience in completing an international post doctoral fellowship in an American University. This paper basically tries to put together the planning and efforts needed to take up such fellowships. The author hopes that the paper may provide some kind of guidance to new and young faculty to take up these opportunities in bettering their personal and professional lives and leverage the most from these.*

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### 1. INTRODUCTION

The primary duties of a faculty in an Institution are to teach, do research and support the community in whatever possible way. The regular work load of a faculty in any University or Institution hardly leaves any time for research, as most of the time is occupied in teaching courses, evaluating the students on a continual basis. This is particularly true, if it is an undergraduate (UG) Institution. The rigors of getting promotions to a higher cadre, virtually forces the faculty to either do a post-graduate

(PG) degree or Ph.D degree, either within the University or Institution or outside it. After completion of the degree, higher responsibilities or duties, virtually prevent them from doing any real research, outside the purview of the regular work, apart from may be guiding other scholars. The routine work load, duties and responsibilities hardly provide any time or energy to think independently or do any independent research. In this context, there is a need for the faculty to take a break and take up academic pursuits, in terms of improving one's teaching or research skills by going on a

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sabbatical, to another University or Institution, either within the country or outside. These activities are pursued out of passion by the individual faculty or to support or improve existing research programs or to start new activities. Faculty may pursue this either to overcome the boredom of doing the same activities again and again, like teaching the same courses, or to personally improve one's skills, to gain a new perspective or to get tenure and / or promotion [1].

Sabbatical is one of the under-utilized professional development opportunities that can be used in academic settings. According to Wikipedia, sabbatical comes from the word, 'Sabbath, which means rest from work [1]. Each University or Institution has its own policy regarding permitting faculty taking up these sabbatical. This sabbatical could be taken up in terms of taking up activities for one's own personal improvement - it could be undertaking specialized training in a laboratory or University, related to teaching or research, taking up post doctoral research fellowships for doing advanced research in an area of interest both to the Institution and Faculty or only to faculty or taking up advanced training etc.

According to Wikipedia Postdoctoral research is academic or scholarly research conducted by a person who has completed his or her doctoral studies, normally within the following five years. It is intended to further deepen expertise in a specialist subject, including necessary skills and methods. Postdoctoral research is essential to the scholarly mission of the host institution and is expected to produce relevant publications accordingly.

### ***1.1 Definitions of a Post Doctoral Fellow***

According to Harvard University, "A postdoctoral scholar is an individual who has received a doctoral degree (or equivalent) and is engaged in a temporary and defined period of mentored advanced training to enhance the professional skills and research independence

needed to pursue his or her chosen career path [2]."

According to the Association of American Universities (AAU) Committee on Postdoctoral Education 1998 Report and Recommendation, the following are the characteristics of a post doctoral fellow -

- The appointee was recently awarded a Ph.D. or equivalent doctorate (e.g., Sc.D., M.D.) in an appropriate field;
- The appointment is temporary;
- The appointment involves substantially full-time research or scholarship;
- The appointment is viewed as preparatory for a full-time academic and/or research career;
- The appointment is not part of a clinical training program;
- The appointee works under the supervision of a senior scholar or a department in a university or similar research institution;
- The appointee has the freedom, and is expected, to publish the results of his or her research or scholarship during the period of the appointment. [2]

According to the University of Ottawa, Canada [3], a post doctoral fellow is -

- The appointee was recently (within five years) awarded a PhD or the equivalent;
- The appointment is of a limited duration;
- The appointment involves substantial full-time research or scholarship;
- The appointment is viewed as preparatory for a full-time academic and/or research career and not as a source of continuing employment;
- The appointee works under the supervision of a faculty mentor at the University or one

of its affiliated institutes;

- The appointee has the freedom, and is expected, to publish the results of his or her research or scholarship during the period of the appointment.

Thus it is clear that a Post Doctoral Research Fellow is required to carry out independent research and produce publications of his or her research.

## 2. PLANNING FOR YOUR FELLOWSHIP

The current scenario is very difficult, as every other country in the world is under the grip of recession and hence there has been drastic cuts in funding by funding agencies in different countries and hence getting fellowships, these days is very difficult. There are however openings available in different Universities and Institutions and faculty interested can apply.

The whole process starting with the application, getting the fellowship and then working for taking up the same requires elaborate planning. There are several concerns to be dealt with which include both personal and professional. Personal includes taking care of all issues related to family, with the absence of the person, managing the budget, if the family is dependent. Professional includes permission from the University / Institution, managing activities in the department, like taking courses and other responsibilities, which may have to be reallocated or rearranged, till the person returns back to the department after completing his or her sabbatical. The sabbatical can range from 3 months to 2 years. Hence before applying for it and afterwards, there is a need for lot of planning.

The fellowships can be some well known international fellowships like the Alexander von Humboldt Research fellowship ([www.humboldt-foundation.de](http://www.humboldt-foundation.de)) or the US Fullbright Scholars program ([www.cies.org](http://www.cies.org)). It could be individual fellowships offered by Professors in various research universities, which can be searched

by doing a Google search or registering in websites like [www.Academickeys.com](http://www.Academickeys.com) (through which the author got this fellowship).

Once you decide upon the area of research, university, fellowship amount, country etc., then you have to apply for the same. Once you are officially selected by the Professor, then you need to have a frank discussion with your professor (supervisor) about the fellowship and all other related issues, so that you do not have any doubts or misgivings about the research work. Another important issue that needs to be sorted out is whether the fellowship amount that you are going to get is sufficient to carry out a decent living (alone or with your family). Only after you clarify all the issues with your supervisor, you have to take the next step of getting necessary permission from your department and the head of the Institution. During the planning phase of your sabbatical, it is always better to take your head of the department into confidence, so that necessary arrangements can be made at short notice by him or her, in your absence for managing your affairs in the department.

Once you get the necessary official permission for accepting the fellowship, you have to contact your supervisor, who in turn can start contacting the concerned University officials, in order to send you the necessary documents, so that you can apply for visa for entering the host country, for taking up the fellowship. The process of applying for the correct category of visa, takes considerable time, out of the total time for planning. For example a Post Doctoral Research Fellow applying for a fellowship in any American University needs to apply for I-1 category visa, which is given for skilled workers, researchers etc. The necessary documentation for applying for this visa has to be organized, which includes passport, photograph of correct specification, letter of invitation from the host university, necessary forms sent by the university, bank statements etc and payment of requisite visa processing fees. On application you have to

select the nearest embassy for attending an interview for your visa, and select a suitable date for the interview. Once the interview gets over, you will have to wait for the visa, which will be sent to you by courier. The visa will be given for a fixed period of time (say for J -1 visa, it is one year) based on the date specified in the form given by the university.

Another important requirement of visiting foreign countries for taking up such fellowships is to have necessary health insurance for the period of stay in that country. The insurance you take should meet the requirements stipulated by the university. You could either take the insurance from India or need to purchase it in your country of stay (which could cost you more).

In addition to planning that you need to do regarding things you need to carry with you, including grocery and food items, you also need to plan about your stay in the place of your work. You have to decide whether you are going to take up University Housing or Private Housing, stay single or have a roommate. This again depends on the cost and convenience. If you want to take up University housing, you need to search online, by going to university website and then plan and apply for it online in advance. If you want to take up Private housing, you need to coordinate with your supervisor, who could help you to take up a private apartment.

Another issue related to housing, is the local transportation. The housing that you select should be either close to the university (place of work) or close to public transportation lines [1]. Luckily for the author, the place of work had fare free public transportation, which was a real advantage.

Before you leave, you should have a support structure in place with the help of your colleagues and friends, to take care of things

in your absence [1]. This becomes all the more important, particularly when you leave your family and are going alone. You should be in constant touch with your family, and colleagues on a regular basis either by email, telephone, chatting etc., so that you can keep yourself abreast of the developments in your Institute, home, country etc.

A sabbatical is a refreshing experience, depending what task you intend to take up. In the author's case, it was research, in an area, which was closely related to his area of interest. Since the author was alone, he spent maximum time on his research work and was able to do lot of fruitful and productive research work, to the fullest satisfaction of his supervisor. This is most important thing, as the Professor or Supervisor, invites you only on the basis of your credentials submitted by you in terms of your curriculum vitae, publication etc. It is the duty of the scholar to utilize the time fully and satisfy the requirements of the research work for which you have been invited and selected.

### 3. CONCLUSION

The kind of planning and preparations required for a sabbatical is really very tedious and elaborate, but the experience can be very good and encouraging. The real experience you gain by your stay in a foreign country, in conversing with the culture there, new food habits, the surroundings, climate and the people there can be very rewarding. Your active participation in all the research activities and other activities in the department can enrich your knowledge, skills and proficiency and can become a memorable experience. This paper provides a brief overview about planning for taking up an international sabbatical and provides some tips and hints.

