

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

BEST PRACTICE -I

Title of the Practice

Appraisal of Research Scholars' progress through Timeline Presentation and Annual Research Congress.

Preamble

The institution is adopting the UGC Regulations in to for offering PhD programmes. The PhD registered candidates are allotted to the recognized research guides and the research candidates have to attend Doctoral Committee Meetings (DCM) twice in a year. The first meeting is conducted within six months of Registration. Normally, the title and course work are finalized in the first meeting. After the completion of the course work in the subsequent meeting materials and methods and statistical tools to be adopted are decided. In the next two DCMs progress of the research work including publications is assessed. In the fifth DCM, the paper publication status will be reviewed, and recommended for Pre-submission presentation.

However, the institution has additional quality initiatives in convening meeting of Timeline Presentation and Annual Research Congress. In the Timeline Presentation other Research Guides of the same department are also involved in assessing the Research Progress of the Scholars. The research scholars at different stages of research works with their guides are present wherein the junior level research scholars are getting more input for their research work. In fact, this is a joint-exercise of all the Research Guides and Scholars.

Annual research Congress is an extension of the same methodology except the academic experts of different subjects across the state are also involved to review and fine-tune the entire research work. Thus, it is an additional quality initiative over and above the normal practice. Hence, construed as the Best Practice.

Objectives

The objectives of Timeline Presentation and Annual Research Congress are

- (i) to ascertain the status of the research work of the scholars
- (ii) to find out whether the scope of the research area chosen addresses the current issues and needs of the society
- (iii) to fine tune the research title, objectives and methodology to be adopted
- (iv) to critically evaluate the quality of their research work and publications

The Context

It is not practically possible to foresee the problems that may be encountered by the research scholars during the course of their research work. Such problems really act as a hurdle for the scholars and may find it difficult to show the progress of their research work.

Timely availability of advice and proper guidance from the academic experts over and above the guidance given by the Research Guides will certainly keep the research scholars on track. Thus, apart from organizing routine Doctoral Committee Meetings, the Institution organizes Timeline Presentation and Annual Research Congress chaired by the Head of the Department and expert members from the respective field to offer suitable guidance and suggestions to the scholars, paves a way to complete the research work in a scientific and systematic manner.

The Practice

The Institution takes necessary steps for arranging Timeline Presentation and Annual Research Congress every year. Timeline presentation is arranged in the month of June / July. Research section sends advance notification to the research scholars, respective guides and the Heads of the Department concerned about the schedule of Timeline Presentation. The research section also forwards a Power Point Template specifying the contents to be covered during the course of their presentation. The Head of the Department will act as a Chairperson for the Timeline presentation. All the research scholars along with their respective guides and faculty members of the department will attend the presentation. The forum offers an opportunity for research scholars to present their research problem in detail, progress and status of their research work, future plan and probable time period required for completing the research work. Based on research scholar's presentation, the observers comprising of Head of the Department, Guide and faculty members of the department give feedback and suggestions to the scholars to fine tune their research work in the right direction and to complete the research work on time.

Every year Annual Research Congress is organized in the month of December. A one-month advance notification is issued to the Research Scholars, Respective Guides and Heads of the Department about the schedule of Annual Research Congress. Sufficient instructions and suitable template are given to research scholars for preparing their Power Point Presentation. Scholars shall prepare the extended abstract of their research work and present them. External experts are invited as Chairperson for Annual Research Congress and Heads of the Department act as a co-chairperson. Research scholars are permitted to present their research work in detail in the presence of external expert, co-chairperson, guide, faculty members of the department and research scholars. Based on his / her presentation, external expert fine-tunes his / her research problem, objectives, appropriate methodology and also clarifies the doubts and offers necessary guidance for the progress of their research work. It is also a practice that the extended abstracts of the scholars are released as a Congress Proceedings.

During the last five years, 5 Time-line Presentations and 5 Annual Research Congress were conducted. Altogether 1381 Scholars participated in Time-line Presentation and 1210 Scholars participated in Annual Research Congress. 96 subject experts were invited from various disciplines.

Evidence of Success

In each and every Timeline Presentation as well as in Annual Research Congress, feedback is obtained from the external experts about the progress of research work of the scholars. The Research Scholars emotionally responded that through the research congress they learned a lot and it helped them to improve the quality of research work and gave them self-confidence to rectify nuances of their research work. External experts and guides strongly feel that it is highly an intellectual exercise and polish their research bent of mind also. The positive feedback received from the research scholars, academic external experts and research guides thus, are clear testimony for the success of this practice. Further, the positive comments given by the external examiners who evaluated the thesis confirm the success of the practice.

Problem Encountered and Resources Required

Occasionally, a few problems erupted on arranging and organizing Annual Research Congress. Few of the academic expert's time-schedule do not coincide with programme schedule, as they held up with their own academic assignments. Further, few experts who initially accepted to act as a resource person later on decline due to unexpected important official assignments in their own institutions. In such cases, Institution has to choose an alternative expert to act as a Chairperson.

Concluding Notes

Considering the evidence of success, "Annual Research Congress" proves to be one of the best practices and quality research initiatives of institution, which other higher educational institution may emulate in their institution. Timeline presentation and Annual Research Congress offer a platform for research scholars for improving their presentation skills and have a chance to interact with a senior academic experts and peer researchers for properly drafting their research problem, objectives and methodology of the study. Further, these events provide an opportunity to identify the progress of research works of scholars and to receive fruitful guidance from academic experts for timely completion of their research work. Also due to this practice the scope for the publication of research papers in quality journals gets increased.

1181 words

BEST PRACTICE –II

Title of the Practice

Professional Hands-on-Experience to students of Civil Engineering on testing Road/
Construction Projects of both Government and Non- Government agencies.

Objectives

- To train them professionally with real-time projects.
- To involve and train the students of Civil Engineering Department Professionally through Hands on Experience.
- To practice different types of testing, such as soil testing, concrete cube testing,

water sample testing, pipe pressure testing and road inspection.

- To expose them in different fields of the Civil Engineering.

The Context

The Government of Tamil Nadu is sanctioning crores of rupees to Municipal Corporations, Government Departments and Town Panchayats for the construction of buildings, roads, bridges, culverts and for laying down pipes for water supply. Central Government is also sanctioning many projects like smart city and NH road. These government departments execute the work by allotting the work to contractors after following due tender process. These contractors complete their work and claim funds allotted for the project.

Before making the payment, the Government Departments have to ensure that the work executed by the contractors meet the standard set so they go for testing the quality of work in terms of its strength, stability and the quality and quantity of materials used. For this purpose, the Government departments engage external Certified Civil Engineers. Five faculty members of the Civil Engineering Department are Government approved Engineers to certify. These faculty members take the students of Civil Engineering to observe, understand and train them in the field, thereby the students become really professional. Students are made to work independently. Under this context, the above practice assumes significance.

The Practice

Step 1

The faculty members are specialized under various streams like Structural, Water Resources, Geo – Technical, Environmental, Remote Sensing in the Department of Civil Engineering and who are registered professional engineers of the Government and their services are made available to the Municipal Corporations and Government Departments.

Step 2

The Government Departments and private sectors which have ongoing building construction and / or road projects, bridge/culvert projects, water supply through the contractors shall be contacting the approved engineers who are also faculty members of the Department of Civil Engineering.

Step 3

The Government agencies shall issue work order specifically mentioning the nature, testing and investigation to be done and the quantum of fees payable to them for the specific task.

Step 4

Once the work order is received by the Department of Civil Engineering, they will take required number of Civil Engineering students for the testing work and provide hands on experience to the students by involving them in the work.

Step 5

The faculty members and the students shall carryout the specific work allotted to them and in this process the students observe, understand the work, methodology of conducting the tests and its importance. When the students are directly involved in the testing process under the direct supervision and guidance of their faculty members they acquire clear and precise professional expertise.

Step 6

After completing specific assignments the faculty members submit the test report to the Government /non-government Department which has assigned the work to the Institution.

This is the best practice followed by the Institution in providing hands-on-training to the students in addition to the faculty members extending their professional expertise to the Government Projects.

Evidence of Success

The above practice is followed by the Department of Civil Engineering since 2015. So far, approximately 600 students of Civil Engineering have acquired the practical skill of assessing the quality of the civil work of different nature.

The Institution has generated a revenue of around Rs. 22 lakhs through the above assignment. The revenue is shared between the faculty and the Institute in the ratio of 70:30, as a sort of incentive/recognition. This is yet another best practice, within this main practice.

There is also a steady increase in the number of Government organizations approaching the Institution for different type of testing of civil work. New assignments, new type of testing and advanced tools and technological developments provide insight to the teaching faculty and exposure to the students, which otherwise, would not be possible.

This has proved to be successful practice in skilling the students of Civil Engineering and exposing them to latest technologies in construction domain.

Problem Encountered and Resources Required

Selection of students according to their subject knowledge, specific interest in a particular area is an important task for the faculty members. To organize and safely escort the students to the field is a challenging task.

The Institution has to arrange transport facility to take the students, provide snacks & lunch during the investigation and testing processes. The resource that are required to carry out to accomplish the given task are to be arranged by the Department.

Concluding Remarks

This is a unique practice followed in the Civil Engineering Department in the Institution and this practice could be executed by the other Engineering Departments also. The opportunity available to the Civil Department is beneficial not only to the department and staff, but also to make the students to get hands-on experience. This practice helps the students to gain practical knowledge in specific area. The students are the most benefited, when they stepped out after their engineering programme, they can easily involve in their interested field with full confidence. Through this experiential learning, they can shine as a better engineer / practitioner. On seeing the success of the project by Civil Engineering, the students of Electrical and Electronics Department assemble LED lights and supply the same to the Institution and to others at a cost price. The Department has come forward to do energy audit. To begin with faculty of EEE are becoming Chartered Engineers of India Energy Bureau and eligible to conduct energy audit.

951 words