

Item NO 27-18  
BAG NIT Manipal  
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# Report of the Committee on "Recruitment of Faculties in IITs" (Industry Interaction and Mobility of Faculty)

## 1 BACKGROUND

Interaction between academia and industry is very important for the growth of both the sectors. This could lead to germination of new ideas, adoption of latest academic research in industry, and development of new ideas to solve the real-world problems. Further, this may also help the students to find new perspectives in the knowledge that they are acquiring. A conscious effort is required to create an environment that facilitates such interactions.

A committee was constituted by the Ministry of Education vide Order No. F.No. 24-8/2020-TS-1 (Sectt.) dated 03 December 2020 [Annexure-1] with the following terms of reference:

1. To suggest sabbatical for existing faculty in IITs and lateral entry of industrial experts in to IITs as regular faculty along with their entitlement of pay and perks
2. To suggest the extent of mobility of faculties and technical experts between industry/research institutions and IITs
3. Any other, which the committee deemed fit to be recommended in this context.

## 2 CURRENT SCENARIO

In some of the IITs, there exist several avenues to invite experts from industry and research institutions as faculty members. Though all these IITs are not following the same nomenclature while appointing such experts as faculty members, the essence of engagement appears to be very similar. For example, scientists and engineers in reputed industries and research organizations are now being invited by these IITs as Visiting Faculty/Scientist, Adjunct Faculty, Distinguished/Honorary Faculty, Professor of Practice etc. The basic philosophy is to engage experts who have the domain knowledge and give them an opportunity to interact with the faculty members, research scholars and students of IITs.

These interactions happen via technical discussions, delivery of special lectures, guiding projects, or even engaging them for a portion of the regular courses. The structure of these engagements is quite flexible and takes into account the varying constraints of the industrial organization and the needs of the academic curriculum. For example, a Scientist/Engineer/Professional would be invited for a few days in a year, as an Adjunct Faculty/Scientist, who would possibly interact with the graduate students engaged in research. If the expert is willing to spend more time in the Institute as a Visiting Faculty, she/he could also be teaching part of a regular course. This gives an opportunity to interact with a larger section of students with varying background. Outstanding Engineers/Scientists could be invited as Distinguished/Honorary Faculty too.



In the past, such invitations were usually extended to experts with PhD degree from both industry and research Institutions. It has been observed that some of the top professionals in industry/research institutions have significant and specialised domain knowledge that is gained by deep understanding of the nuances of their field. This could offset the requirement of a PhD.

On the other end of the spectrum, many faculty members would be interested in interacting with engineers and professionals in an industrial environment or a research institution. This opens up opportunities for the academician to propose solutions to the real-world problems. This is achieved in the IITs, to some extent, via "sabbatical" leave, long leave, and short leave, for which provision exists in the IIT Statutes, as explained further in paragraph (8.1) and (8.2) of this Report

### 3 THIS REPORT

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The Committee underscores the imperative to step up the professional interaction between IITs and industry as well as between IITs and research institutions for mutual benefits and enhanced synergy to address problems of national importance. Hence the recommendations of the Committee form mutatis mutandis for both industry and research intuitions.

The Committee recommends standardisation for the prevalent engagement of professional from industry and research institutions at IITs as Visiting Faculty at all three levels (paragraph 4), Adjunct Faculty (paragraph 5), and Distinguished Honorary Professor (paragraph 6) with harmonised guidelines on eligibility, selection procedure, duration of the engagement as well as honorarium and other applicable benefits. Visiting/Adjunct/Honorary faculty will not be counted towards sanctioned strength of regular faculty.

Further, the Report delineates (in paragraph 7) the policy guidelines recommended for instituting 'Associate Professor of Practice' and 'Professor of Practice' (PoP) at all IITs, for attracting mid-career and senior professionals in service at industry and research institutions (as distinct from those applying for a regular faculty position or those looking for engagements at IITs on superannuation from their parent organisation), and prescribes the eligibility, selection procedure, duration of engagement, the possible activities at IIT, the financial package and upper limit (of 5-10%) for the number of PoPs that could be engaged. After an initial period of three years on contract, requirements for extension of their contract period or absorption as regular faculty are spelt out. Importantly, the PoPs would be considered on par with regular faculty for eligibility for academic engagements and membership in academic bodies. The associated commitments for lien from the parent organisation for the contract period and incentives from Government to such organisations (e.g. inclusion of such expenses under CSR scheme) are also suggested.

In paragraph 8 of the Report, recommendations are given for enhancing mobility of Faculty to industry and research institutions, essentially (a) harmonising the guidelines for 'Sabbatical', 'Short Leave' and 'Long Leave' with minor tweaking vis-à-vis the existing provisions of the IIT Statutes, and (b) recommending a new scheme of 'Industry Leave' detailed



in paragraph 7.3 with (i) envisaged activities, (ii) expected outcome, (iii) sabbatical details, (iv) financial details, (v) the process of engagement for short periods up to an year or 'Dual Designation'/Joint Appointments' for longer periods (of 1-3 years) and (vi) the expected outcomes.

It is recommended the IIT Council may consider these recommendations to evolve suitable policy guidelines to all IITs, with provision for flexibility to be exercised by the respective Board of Governors based on local considerations.

## **4 VISITING FACULTY**

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Scientists and engineers working in renowned organizations and faculty members in other academic institutions could be invited as visiting faculty. In this mode of engagement, the visiting faculty would spend full time in the Institute interacting with faculty members and students. The visiting faculty positions can be offered at Assistant/Associate/Professor levels based on qualification and experience. Depending on the duration of stay and the expertise, the visiting faculty could take up any of the following activities:

1. Design, development and offering of new courses relevant to industry
2. Advise students in their projects linking them with appropriate external stake holders
3. Encourage students in innovation and entrepreneurship projects and provide necessary mentorship for their activities
4. Engage in industry academia collaborations.
5. Co-guide post graduate students

### **4.1 ELIGIBILITY**

Qualifications and experience will be similar to those of regular faculty, i.e. the person must possess PhD and minimum of 3/6/10 years of post-PhD research/industrial experience in the relevant domains for Visiting Assistant/Associate/Professor levels respectively.

### **4.2 SELECTION PROCEDURE**

Through a Standing Committee, on the recommendation of the department.

### **4.3 DURATION**

One month to two years

### **4.4 HONORARIUM**

The Visiting faculty positions will be at all levels-Visiting Assistant Professor, Visiting Associate Professor, and Visiting Professor. The remunerations/honorariums for each of these positions will carry consolidated monthly salary commensurate with the salaries of equivalent regular faculty positions. The exact honorarium may be decided by the Board of each institute.

### **4.5 OTHER BENEFITS**

- Travelling Allowance for joining the position may be paid by the institute. This includes travelling expenses and transportation of household items from any place in India or abroad.



- Accommodation, depending on availability, on payment basis
- Medical facilities equivalent to the Institute faculty
- Library facility
- ID card
- E-mail and Internet facility

## 5 ADJUNCT FACULTY

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Many a time, an expert from industry/research organization would like to visit the Institute for a short duration at regular intervals over a long period. This mode of engagement causes minimal disruption to the professional activities of the expert. In this mode, the visiting expert would be able to deliver a few lectures or engage in meetings with faculty members and research scholars on research topics relevant to industry.

### 5.1 ELIGIBILITY

Persons working in industry/research organizations in product design and technology development with qualifications and experience of regular faculty, except that a PhD is desirable but not essential.

### 5.2 SELECTION PROCEDURE

Through Standing Committee on the recommendations of the department.

### 5.3 DURATION

One month to three years (total visit may be 10 to 12 days per year)

### 5.4 HONORARIUM

Per day/Per Lecture consolidated honorarium (exact amount to be decided by the Board of each institute) for Adjunct Faculty may be paid by the institute.

### 5.5 OTHER BENEFITS

- Reimbursements of Travel expenses within India. Reimbursement of Foreign Travel expenses may be considered on a case-to-case basis.
- Lodging and Boarding for the days of stay at suitable transit accommodation/guest house is to be provided by the department
- Library facility
- ID card
- Medical (OPD) facility

## 6 DISTINGUISHED HONORARY PROFESSOR

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Eminent industry professionals/scientists working in research organizations may like to get associated with the institute or visit the institute to interact with faculty and students. Such distinguished individuals may also mentor students and engage with the faculty on research



projects. Such professionals of eminence may be offered the position of Distinguished Honorary Professor.

Other aspects of modes of engagements may be similar as mentioned above (in para 5.1 to 5.5) for Adjunct Faculty.

## **7 PROFESSOR/ASSOCIATE PROFESSOR OF PRACTICE**

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Professor of Practice would be expected to enrich the experience of students by bringing deep understanding and appreciation of the best practices as applied in real world settings. These individuals would ideally provide students with a deeper understanding of the practical applications in a particular field of study. Additionally, they would help promote the integration of academic scholarship with the practical experience of professionals in a given field. They may also serve as liaisons between industry or government and the institute in identifying teaching and research opportunities that support the public interest and societal needs.

### **7.1 ELIGIBILITY**

Candidates should have reasonable (typically 10-15) years of managerial or professional experience and should have worked in a senior management position such as CEO/CTO/Vice President/Director for a reasonable period. They should have at least a master's degree in Engineering/ Sciences/ Humanities or a related field. Ph.D. is desirable but not essential. However, a lack of Ph.D. must be offset by demonstrated domain knowledge, obtained from deep experience in the 'field'. Depending on the years of experience, the person may also be offered the position of Associate Professor of Practice.

### **7.2 SELECTION PROCEDURE**

Through Standing Committee on the recommendations of the department.

### **7.3 DURATION**

The offer would be for an initial period of three years. Based on a rigorous review, Professor of Practice may also be absorbed as permanent Professor of the institute after completing three years of contract with the proviso that PhD will be essential for absorption. Alternately, the contract may also be extended for a maximum of another five years based on performance and contributions made. The concurrence of parent organisation will be required for extension of the contract period. Person being appointed as Professor of Practice may also be permitted to keep a lien on its position in the industry.

### **7.4 ACTIVITIES**

The Professor of Practice is expected to perform a wide range of activities including:

1. Design, development and offering of new practice-oriented courses;
2. Advise students in their projects linking them with appropriate external stakeholders;
3. Engage in department building activities including creation of new programmes and Centres and enhancement of scope and activities of the department;



4. Develop Continuing Education Programmes, undertake outreach activities and conduct extension programmes;
5. Encourage students in innovation and entrepreneurship projects and provide necessary mentorship for these activities; and
6. Contribute to enhanced industry academia collaborations.

#### 7.5 BENEFITS

The Professor of Practice is a contractual appointment and will be appointed on a regular scale depending on experience. The allowances leave and other benefits will be as per Institute norms.

It is expected that the Government of India/Ministry of Education would incentivize industry which would make PoP positions attractive for industry professionals. Under the scheme, the person so appointed as PoP in the institute may be paid 50% of his/her compensation paid in the industry.

#### 7.6 LIMIT

The number of Professors of Practice would typically not exceed 5%-10% of the faculty at the Institute depending on the total strength of the faculty e.g. older IITs may limit the number to 5%

### 8 MOBILITY OF FACULTY TO INDUSTRIES AND RESEARCH INSTITUTIONS

#### 8.1 SABBATICAL

In the IITs, as per the Statutes, Academic Staff are allowed to take Sabbatical leave to accomplish one or more of the following objectives:

1. To conduct research or advanced studies in India or abroad;
2. To write text books, standard works and other literature;
3. To visit or work in Industrial concerns and technical departments of Government to gain practical experience in their respective fields;
4. To visit or work in a University, Industry or Government research laboratories in India and abroad; and
5. Any other purposes for the academic development of the staff member, as approved by the Board of Governors.

Sabbatical leave is admissible to a member of the academic staff:

1. After the completion of six years (or more) of continuous service with the Institute
2. For a maximum of three times during the entire service of such member

#### 8.2 SHORT LEAVE AND LONG LEAVE

Academic staff can also avail leave for a duration up to six months, called 'short leave'. It is desirable that short leave does not overlap two semesters. Any absence exceeding a period of six months shall be called long leave.



### 8.3 'INDUSTRY LEAVE'

The faculty members of the IITs interact with industries and research institutions in various ways for mutual benefit. It is desirable to create mechanisms to enhance this interaction. One such mechanism is to visit industries for a short duration, especially during the vacation (i.e., non-teaching) period. Such short visits have several advantages to faculty, Institute as well as the industry.

#### 8.3.1 Envisaged Activities

- Interaction with industry personnel via delivering lectures, holding discussion meetings etc.
- Sharing of technical knowledge
- Discussion regarding technology development and technologies available for licensing
- Initiating possible student projects
- Use of specialized facilities of industry, etc.

#### 8.3.2 Expected outcome

- Mutual exchange of ideas and knowledge
- Seeding of new projects and fostering of long-term interactions and R&D collaboration
- Exposure of faculty to real-life data and problems
- Exposure of faculty to engineering / design / management practices in the industry
- Generation of opportunities for internship, placement, and fellowships for students, support for student technical projects, etc.

#### 8.3.3 Sabbatical Details

- Faculty will be full-time visiting scientists in the industry during this period.
- Duration can be anywhere from a week to six months. In some cases, the leave may be permitted up to one year. During long leave of absence of the faculty, teaching and research guidance commitments of the faculty may be reassigned to another faculty.
- Location can be either within or outside India.
- Faculty will be allowed to take up such assignment as 'on-duty' with no leave deduction,
- Industry Leave will not be counted against normal Sabbatical Leave of the faculty.

#### 8.3.4 Financial Details

- Travel and other incidental expenses are to be borne by the Industry or the faculty.
- Remuneration will be as mutually agreed upon by faculty and industry.
- Overhead to the Institute: the institute will charge overhead as per norms

#### 8.3.5 The Process

- Faculty will give a self-declaration that this visit will not be used to take up independent consultancy projects during the visit.
- Faculty will inform the Institute of the honorarium to be received.
- Faculty will seek permission from the Dean of Faculty Affairs by routing a request through the Head of the Department.
- In case the visit results in a project, faculty will register such a project as per norms, after returning to the Institute.



#### 8.4 DUAL DESIGNATION/JOINT APPOINTMENTS

In order to enhance industry-academic interactions, it is also desirable that faculty member engage with industry on longer duration projects. For this purpose, it is proposed that faculty members may be permitted to work in industry for extended duration holding dual designations/joint appointments with industry and IIT. Faculty member can spend up to 50% of his/her time in industry.

##### 8.4.1 The Process and Engagement Details

- Such positions will be based on a contract between the concerned industry and IIT for a period ranging from 1 to 3 years.
- Faculty members may hold the appropriate designation in the industry (Manager/Senior Manager/VP etc) along with his/her position of Assistant/Associate/Professor.
- Industry may pay the compensation to the faculty member as per the industry practices. The institute may charge overheads as per the contract.
- Faculty member may be paid salary by IIT on pro-rata basis.

##### 8.4.2 Expected Outcomes

- Faculty engagement with the industry project for a longer duration will benefit the industry in terms of leveraging the expertise of the faculty. The institute will also get benefited in terms of enhancing industry-academia engagement for the joint R&D.
- Opportunities for joint projects with research scholars, students and industry team for the development of IPR and technology.
- Opportunities for internship/placements for students

(Pawan Goenka)

(Krishnamurthi Venkataramanan)

(B V R Mohan Reddy)

(Sudhir K Jain)

(Virendra Kumar Tewari)

(KN Satyanarayana)

(Abhay Karandikar)

(Dr K Radhakrishnan)

Chairperson

Date: December 28, 2020



F.No. 24-B/2020-TS-1 (Sectt.)

Government of India  
Ministry of Education  
Department of Higher Education

Shastri Bhawan, New Delhi - 110 001

Dated the 03rd December, 2020

**ORDER**

**Subject: - Constitution of a Committee on recruitment of faculties in IITs.**

Some IITs are already hiring adjunct faculty as Professor/Associate Professor/Assistant Professor who do not have traditional academic background but have experience in reputed industry or Research institutes as Scientist/Technologist. They have been associated with research projects and also deliver guest lectures on core subjects. It is felt that mobility of faculty and non-faculty persons between technical institutes and industry will promote collaboration between industry and academia.

2. Accordingly, it has been decided to constitute a committee to review the policy of recruitment in IITs with reference to above.

3. The composition of the Committee is as under: -

- a. Dr.K. Radhakrishnan, Chairman, SCIC
- b. Dr. Pawan Goenka, Chairman, IITM
- c. Shri Krishnamurthi Venkataramanan, Chairman, IIT Bhilai
- d. Dr. B. V. R. Mohan Reddy, Chairman, BoG, IITH
- e. Director, IIT Gandhinagar
- f. Director, IIT Kharagpur
- g. Director, IIT Tirupati
- h. Director, IIT Kanpur

- Chairperson

Convener

4. The committee may invite any other experts as special invitee in their meeting.

5. The terms of reference of the committee shall be as follows: -

- i. To suggest sabbatical for existing faculty in IITs and lateral entry of industrial experts in to IITs as regular faculty along with their entitlement of pay and perks.
- ii. To suggest the extent of mobility of faculties and technical experts between industry/ research institutions and IITs.
- iii. Any other, which the committee deemed fit to be recommended in this context.

6. The Committee shall submit its report within two weeks time.

7. This is issued with the approval of Hon'ble Shiksha Mantri.

(Rakesh Ranjan)

Additional Secretary/TE

To,

Members of the Committee

Copy to:-

1. PSO to Secretary/HE