INDIAN INSTITUE OF TECHNOLOGY, ROORKEE

DEPARTMENTAL REVIEW TEMPLATE

1. **Name of Department/Center : Earthquake Engineering**
2. **Reviewers :**

Prof. Mahesh Tandon
Tandon Consultants Pvt Ltd
17, Link Road,
Jangpura Extension
New Delhi

Prof. H.S. Kushwaha,
L-485, Raghunath Bihar
Sector-14
Kharghar
Navi
MUMBAI- 410 210

Dr. V.P. Dimri
CSIR- Distinguished Scientist,
NGRI,
Uppal Road,
Hyderabad-500007

3. **Date of Review: April 23, 2014**

GRID FOR ASSESSMENT

NOTE:

i. Please grade in the box provided for the following parameters in the range of 1-10 with 10 being the highest.
ii. Leave 'blank' for 'No Comment'.
iii. Kindly give your opinion on the strength and weakness of the Department/ Center and your suggestions for future growth.

I. ACADEMICS

I.1	Undergraduate	Score
1.	Curriculum i. Curricular Structure ii. Course Syllabi iii. Flexibility	
2.	Formal Academic Load on Students i. Teaching ii. Laboratory/Practical iii. Projects(minor/major)	
3.	Evaluation Process i. Continuing Evaluation ii. Mid-term Evaluation iii. End-term Evaluation	
4.	Academic Ambience	
5.	Opportunity for Peer-Based Learning	
6.	Opportunity for Further Learning(Breadth and Depth) i. Elective Courses Specialization ii. Minor with Major Discipline iii. Honors Programme in Major Discipline	
7.	E-Assisted Learning i. Availability of Library Resources and Major Search Engines (like Scopus, Web of Science) ii. Multi-Media Assisted Teaching	
8.	In –Curriculum Research/Exploration Opportunity to Students	
9.	Technical Societies/ Colloquium for Students i. Departmental Society ii. Student Chapter(s) of Professional Societies	
10.	Faculty –Student Interaction	
11.	Faculty Mentoring of Students	
12.	Faculty Advisor System for Students/Class of Students	
13.	Self Study Courses for Student	
14.	Effective Teaching Mechanism for Enhanced Number of Students in Various Classes	
15.	Effectiveness of Assisted Learning: Tutorial System for B.Tech Students/ Seminars	

I.2	Graduate Programmes (Masters)	Score
1.	Curriculum i. Curricular Structure ii. Course Syllabi iii. Flexibility	9 9 5

2.	Formal Academic Load on Students i. Teaching ii. Laboratory/Practical iii. Seminar/Dissertation	 9 9 9
3.	Evaluation Process i. Continuing Evaluation ii. Mid-Term Evaluation iii. End-Term Evaluation	 9 9 9
4.	Academic Ambience	9
5.	Opportunity for Peer-Based Learning	7
6.	Opportunity for further Learning(Breadth and Depth) Elective Courses (Specialization Electives)	8
7.	E-Assisted Learning i. Availability of Library Resources and Major Search Engines (like Scopus, Web of Science) ii. Multi-Media Assisted Teaching	 9 9
8.	In –Curriculum Research/Exploration Opportunity to Students	9
9.	Technical Societies/ Colloquium for Students i. Departmental Society ii. Student Chapter(s) of Professional Societies	5 5
10.	Faculty –Student Interaction	8
11.	Faculty Mentoring/Supervising of Students	9
12.	Faculty Advisor System for Students/Class of Students	9
13.	Effectiveness of Assisted Learning: Home Assignments/Seminars/Presentations	8

I.3	**Doctoral (Ph.D) Programmes**	**Score**
1.	Pre-Ph.D Courses and Evaluation Process	9
2.	Comprehensive Courses Examination	9
3.	Breadth and Depth of Knowledge of Students	8
4.	Seminar/ Presentations and Technical Communication	7
5.	Average No. of Research Students/Faculty	9
6.	Average No. of Research Papers of Ph.D Students	9
7.	Average Duration to Complete Ph.D (years)	8

II. RESEARCH

		Score
1.	Research Ambience in the Department	9
2.	Research Awareness among Doctoral Students	7
3.	Competence Level of Doctoral Students for Research	8
4.	Quality of Research	9

5.	Quality of Publications	9
6.	Impact of Publications	9
7.	Relevance of Research to Knowledge Generation	10
8.	Societal Relevance of Research	9
9.	Exposure of Researchers to the International State of Art	9
10.	Student Exposure to Attending Quality Conferences/Symposia	8
11.	Growth in Ph.D Programme	9
12.	Quality of Research Infrastructure	9
13.	Utilization of Existing Research Infrastructure	9
14.	Department Initiative on Faculty Hiring	7
15.	Breadth and Depth of Research in the Department	9
16.	Research Intensity of Faculty Members	7

Futuristic Areas For Hiring Faculty Members

More faculty in structural area so that there is a balance with other specilisations.

Research Areas for Improvement

Comments (not more than 100 words for each given below)

Strength:

Ground motion from all aspects including geotechnical engg and soil dynamics.

Weakness:

No variety of subjects of thesis. Industry oriented projects completely missing

Suggestions for improvement:

1) Industry experts should be invited to identify areas of research which is of interest to the industry.
2) Uncertainty in ground motion and structural analysis should be addressed.
3) Dept. Society and Student chapter should be established

III. Departmental Infrastructure

		Score
1.	Adequacy of Class Rooms and Multi-Media Facility	5
2.	Availability of Laboratories	9
3.	Availability of Conference/Seminar Room, etc.	9
4.	Availability of Seating Space for Research Students	7
5.	Availability of Internet Services in Research Labs and Class Rooms	9
6.	Departmental Library and E-Resources	9
7.	Computing Facilities and Software	9
8.	Adequacy of Offices and Furnishing for Faculty	9
9.	Faculty- Student Ratio	9
10.	Support Staff (Technical/Administrative) Adequacy	6

Comments (not more than 100 words for each given below)

Strength:

Testing facilities

Weakness: (1) space and computer facilities for technical, nonteaching staff and students.
(2) upgradation of skills of nonteaching staff should be done more satisfactory

Suggestions for improvement:

(1) Build more space
(2) Purchase more latest computer facilities. Every students should be able to access all the softwares.
(3) Students should be given training in communication skill.
(4) Increase the number of technical staff.

IV. Admissions of Ph.D Students

		Score
1.	Intake of Ph.D Students	9
2.	Admission Process	9

Suggestions:

Students in Master in Science should be given some ~~orientation~~ orientation course in Earthquake Engineering.

V. Outcomes

		Score
1.	Placements i. Placement of B.Tech/IDD Students ii. Placement of Masters Student iii. Placement of Ph.D Students	 9 9
2.	Average No. of Ph.Ds Awarded per Year	9
3.	Publications per Faculty in ISI Indexed Journals/Year	10
4.	Average Citations per Faculty/Year (Last-Three Years) (Web of Science/Scopus)	9
5.	Recognitions; Awards(National/International) to Faculty/Students	9
6.	Consultancy and Projects	8
7.	No. of Ph.D. graduates who took Academics as Career (Based on Data of Last 5 Years)	9

Comments and Suggestions for improvement:

Uncertainty exists in students of future jobs opportunity. This impression may be corrected and should be rectified by the faculty.

Date: 23 April 2014

(Signature of the Reviewers)

(Prof. Mahesh Tandon) 23/4/2014 (Prof. H.S. Kushwaha) 23/4/2014 (Dr. V.P. Dimri) 23.4.14

(Name and Address of the Reviewer)

Prof. Mahesh Tandon
Tandon Consultants Pvt Ltd
17, Link Road,
Jangpura Extension
New Delhi

Prof. H.S. Kushwaha,
L-485, Raghunath Bihar
Sector-14
Kharghar
Navi
MUMBAI- 410 210

Dr. V.P. Dimri
CSIR- Distinguished Scientist,
NGRI,
Uppal Road,
Hyderabad-500007