

## GATE Training Program

### 1.0 TERMS OF REFERENCE (TOR)

#### 1.1 Statement of objectives

The purpose of this TOR is to identify an agency preparing 3rd & 4th year students (under graduate Engineering courses) by imparting required training for preparing them for GATE. The focus of providing this shall be to polish their conceptual skills, help them qualify in single exit examination i.e. GATE and enhance the employability of technical graduates.

The service provider/consultancy agency has to impart necessary top up teaching on GATE covering basic courses, core courses and advanced courses related to each of the disciplines as per the curriculum and format for the GATE examination announced for that particular year. The performance of the student in GATE examination in terms of achieving qualifying score is expected to improve. The training/ teaching shall consist of different courses which may be given in one go to all third-year and final year interested undergraduate engineering students in the semester breaks or may be given in parts. The broad objectives of the training shall be as given below:

- I. Enhance conceptual knowledge of students in particular course/ disciplines through Instructions particularly for solving novel problems in the respective area.
- II. Enable to apply the knowledge in different applications and expand their toolbox (of methods) to solve real life problems by becoming more skilled (technical) at explicitly thinking and applying processes.
- III. Improve thinking skills to generalize as well as standardize the methods and concepts to other applications.
- IV. Develop systematic methods for learning from problem sets, including: how to apply and transfer conceptual knowledge; identify common obstacles and errors; and contextualize individual problems within the themes and concepts of the course.
- V. The course work shall cover all the subjects as per the curriculum declared for GATE of that particular year.
- VI. To provide proper resources to the students to enable them for better preparation for GATE and increase the number of GATE qualifiers.

Further, over and above the earlier mentioned points, the detailed requirements of NIE are listed below:

- i. The programs at NIE opting for training would be Civil Engineering, Mechanical Engineering, Industrial & Production Engineering, Electrical & Electronics Engineering and Information Science.
- ii. Duration of training is expected to run over one year and keyed in to the academic calendar of NIE.
- iii. The GATE training will be imparted in two modes as per the choice of the students:
  - a) Class Room Training mode with at least 400 hrs of class room training per year (the probable students who may opt for this mode are from Mechanical Engineering and Industrial and Production Engineering for GATE -2019). Course material would be provided by the GATE training provider.
  - b) Distance Learning Mode with at least 200 hrs of class room training and supplemented with video lectures (the probable students who may opt for this mode are from Civil Engineering, Information Sciences and Electrical and Electronics Engineering for GATE-2019). Course material would be provided by the GATE training provider.

- iv. If the mode of training is any mode other than those mentioned above, please provide the details separately.
- v. For GATE-2019, following are the number of students opted for coaching:

Program	Class room	Distance learning
Mechanical	60	0
Industrial & Production.	6	0
Civil Engineering	0	06
Electrical and Electronics	0	11
Electronics & Communication	0	0
Computer Science	0	0
Information Science	0	1
Total	66	18

- vi. Venue of training would be NIE campus.
- vii. Training to be done on weekends, holidays and vacation.
- viii. The training is expected to start at the earliest.
- ix. The students are expected to appear for the GATE of February 2019.
- x. It is understood that the training would start for students from 6th semester and would extend over the 6th and 7th semester.

### 1.2 Tasks to be carried out

The course contents for GATE training shall be based on the curriculum declared for GATE every year. The service provider/consultancy agency has to cover following premium learning tools while delivering the contents:

- i. Providing learning (study) material online/ offline before commencement of training.
- ii. Powerful learning opportunities from subject experts (Guest lecture) who are not available locally in towns & cities where institutions are located.
- iii. Interactive technology enabled online tutorials/ tests.
- iv. The opportunity to work and learn at a custom, personalized pace - regardless of whether or not the student is a "challenged" or "accelerated" learner in the classroom.
- v. The environment (for eg. MOODLE) to ask whatever questions he/she wants in order to accomplish his/her learning goals.
- vi. Track achievements and progress with easy-to-use measurement tools.
- vii. Face to face training in the selected institutes as per the schedule to be furnished by institutions.

### 1.3 Schedule for completion of tasks

Schedule for the training shall be mutually decided by the institute (client) and service provider based on academic calendar/ activity of participating students. The agency is expected to cover complete GATE syllabus for following disciplines of engineering under graduate programs.

- a. Electrical Engineering
- b. Mechanical Engineering
- c. Computer Sc. and Information Technology

- d. Civil Engineering,
- e. Production and Industrial Engineering

#### **1.4 The support/inputs provided by the client**

Client (NIE college) responsibility:

- i. Shall provide number of batches and the list of students participating in the training.
- ii. Shall provide infrastructure like auditorium/seminar halls, internet facility, and team of faculty for coordination.
- iii. Coordination shall include making students attending program, monitoring of attendance, collecting feedback of students, arranging weekly review meeting with head of institution.

#### **1.5 Service Provider's responsibility**

The responsibilities of the Service Provider are:

- i. Service provider has to provide detailed schedule of breakup for each of the appropriate modules covering the different skills mentioned in this document.
- ii. Multiple subject experts shall be provided by mapping their specialization with the modules to be delivered for each batch.
- iii. Each module must be supported by online tutorials which must be available for every registered student on 24x7 basis till the end of his graduation.
- iv. Benchmarking test shall be conducted for the students enrolled for the training program before commencement of training. Every such student shall be evaluated periodically for the modules completed.
- v. Each module must be supported by online assessment module.
- vi. Inviting student feedback, taking corrective actions for further improvement.
- vii. The training shall be conducted preferably during summer/ winter vacation or as agreed mutually with the institution for pre-final year students.

#### **1.6 Final outputs that will be required of the Consultant**

To train all the aspirants on proper preparation for GATE and provide them various resources like study material, access to the online videos, access to the all India Test Series, etc. and increase the number of GATE qualifiers with the help of coordinators from college.

The final output must match with the course objectives mentioned in para 1 & 2 above.

- i. The technical graduates to whom the training shall be imparted will become more employable (increase in placements) and synchronize themselves for various needs of the industry.
- ii. The final assessment shall be done by service provider using the same assessment tool which was used for benchmarking (0th test).
- iii. The final assessment shall result into at least 30 % improvement in case of every individual student after training. It is possible only after periodic assessment and timely corrections in the methodology/ mechanism.
- iv. As per AICTE guidelines, at least 30 % of the students taking GATE training qualify GATE from the respective institute. The consultant should put all possible effort to achieve this.

#### **1.7 Composition of Review Committee to monitor the Consultant's works**

- i. The institute shall constitute Review Committee to monitor the progress of the training
- ii. The final settlement of training fee shall depend on the basis of satisfactory performance in view of student feedback and student performance.

### 1.8. Eligibility Criteria

No.	Eligibility Criteria for the service provider	Documents for evidence
1	Service provider should be an organization/corporate/consultant agency/ institution of higher education and must be in operation for minimum 5 years as on 31.03.2018	Copy of Certificate of Incorporation
2	Should have the sufficient numbers of faculty identified so as to cater to the institution requirement.	The documentary evidence must be enclosed.
3	The service provider should be registered with appropriate tax authorities such as income Tax, GST/ Service Tax etc.	Copy of Respective Certificate(s)

The eligibility criteria given in TOR is minimum. Preference would be given to vendor having higher qualification and based on relevant experience of vendor.