PG admissions procedure for 2021-2022.

MS by Research
MTech RA/RAP (TA positions are by direct admissions based on GATE score only)
Ph.D.

MS Admissions Process 2021 (for TA+RAP)

1. All applicants meeting the eligibility criteria (https://www.iitb.ac.in/newacadhome/advertisement2021.pdf) and having a GATE score higher than the cutoffs (GN/EWS>=700, OBC-NC>=630, SC/ST/PD >=467) in their respective categories are shortlisted for the written test. Even if you (the applicant) do not get a letter or email about the shortlisting, you may appear for the test if you meet the GATE score cutoff.
2. All shortlisted candidates **MUST** take a mock test on **Apr 25**, **9 am - 10 am**. This is mandatory for anyone to attend the final written test on May 02. Absolutely no exceptions will be entertained in this regard. *Shortlisted applicants must be logged in by 8am to ensure the proctoring environment is set up correctly.* We will disable all new logins by 8.15am and not entertain any excuses. The actual mock test is from 9am - 10am.
3. It is the responsibility of the applicant to have a stable internet connection and a laptop/desktop from which they can take the test as well as attend the interview both of which will be online. IIT Bombay takes no responsibility for any resources that applicants need for the online test/interview. Mobile phones are not allowed to take the test.
4. The test (mock and actual) will be administered via CodeTantra. See https://docs.google.com/document/d/e/2PACX-1vS3fenmxhrZb6Sd95MQ1ruy1zmc0YMSDfP2zJo_luR19eInZqjcvnU90T6gHRLHCw/p for Code Tantra details. It is the sole responsibility of the applicants to familiarize themselves with CodeTantra using material

sample paper). ***You must be logged in an hour before the test begins (by 8am) to ensure the proctoring environment is set up correctly. We will disable all logins by 8.15am and not entertain any excuses***.

6. Shortlisting for the interview is based on 30% written test score + 70% GATE score. The syllabus for the test is as follows:

   Mathematical Aptitude: Discrete structures (sets, graphs, elementary counting and probability), elementary calculus, linear algebra, geometry.

   Programming Aptitude: Ability to write programs in C/C++ to solve simple problems. Use of elementary data structures such as arrays, lists, stacks, queues, trees. Familiarity with recursion. Ability to reason about programs, e.g., writing loop invariants and assertions.

   Computer Science and Engineering: Questions from the following 9 areas of the undergraduate computer science and engineering curriculum:
   Algorithm Design and Analysis.
   Artificial Intelligence.
   Compiler Construction.
   Computer Graphics and Image Processing.
   Computer Networks.
   Database Management Systems.
   Operating Systems.
   Theory of Computation.
   Computer Architecture

   The test will consist of simple fill-in-the-blank type questions. The test will have around 40-45 blanks to be answered in 3 hours. All questions are compulsory. Click here https://www.cse.iitb.ac.in/~siva/basicMay16.pdf for a sample paper (do not worry that the title says it is a PhD test!)

7. Shortlist for interviews will be announced by 4pm on May 2nd.

8. Applicants must submit their choice for an area (a-c below).
   a. <u>**Intelligent Systems**</u> (Artificial Intelligence, Machine Learning, Natural Language Processing, Computer Vision, Image processing, Graphics)

   b. <u>**Computing Systems**</u> (Networks, Computer Architecture,

c. **<u>Theoretical Systems</u>** (Algorithms, Complexity Theory, Combinatorial Optimization, Cryptography, Formal methods)

9. **The preferences will be collected via a Google form sent to shortlisted candidates. Applicants must fill this form by April 25, 6 pm.**
   a. This will be used to schedule interviews based on available positions in each area divided in the ratio: 40.5 % GN, 10% EWS, 27% OBC, 15% SC, 7.5% ST. **Intelligent Systems : 11** (4-GN, 1-EWS, 3-OBC, 2-SC, 1-ST) **Computing Systems : 16** (7-GN, 2-EWS, 4-OBC, 2-SC, 1-ST) **Theoretical Systems : 10** (3-GN, 1-EWS, 3-OBC, 2-SC, 1-ST).
   b. Each area has a fixed number of interview slots
      Intelligent Systems : 33 (13-GN, 3-EWS, 9-OBC,5-SC,3-ST)
      Computing Systems : 45 (18-GN, 5-EWS, 12-OBC, 7-SC, 3-ST)
      Theoretical Systems : 20 (8-GN, 2-EWS, 5-OBC, 3-SC, 2-ST)
   c. If you (the applicant) are not among the top k applicants (k=33 for Intelligent Systems, k=45 for Computing Systems and k=20 for Theoretical Systems) of your chosen area, then you will **NOT** be interviewed. Note that this might result in some candidates with a lower score than you in getting interviewed, since they chose a different area, where they were in the top k candidates for that area.
   d. The implication of choosing an area extends beyond interviews for admission - if admitted and you join, it implies that your research will be in your chosen area. This is the primary difference between MTech TA positions and MS by Research TA positions. In the former, you have the flexibility of finding a guide in any research area in the department where as a MS by Research TA, you are bound to the area you selected during admissions.
   e. Points c. and d. imply the following: **Choose your area carefully - you get only one chance to submit the google form. We will not consider requests for change of area.**
   f. Any unfilled seats will be given to

have **RAP positions**. The **available RAP positions** are here (https://www.cse.iitb.ac.in/admission/msproj21.php). The google form you fill will also ask if you are interested in appearing for these interviews. In case you are selected under RAP, you commit to working under the respective faculty for your project, and advisor pairing happens at the time of admission itself. Once again, we have a fixed number of interview slots for each of these projects.

     a. **RD/0120-SERB000-016** : 10 interview slots for 1 position
     b. **Spons/CS/GR-5/2020**   : 10 interview slots for 1 position
     c. **SAFE** and **Smart Question Repository and Paper Generator** together have 16 interview slots for 4 positions
     d. **Spons/CS/AMS-1/2020 :** TBD interview slots for 1 position

11. The **interviews** will be conducted in the online mode **May 04-12, 2021**. Details of this (zoom/google meet etc) will be communicated to applicants by the CSE office. The final results will be available on the COAP portal by M.Tech second round offers.

PhD Admissions 2021

1. All applicants meeting the eligibility criteria (https://www.iitb.ac.in/newacadhome/advertisement2021.pdf) in their respective categories are shortlisted for the written test which will be conducted online on May 02 using CodeTantra.
2. All shortlisted applicants **must** take a mock test on Apr 25, 09am-10am. This is mandatory for anyone to attend the test on May 02. Absolutely no exceptions will be entertained in this regard. *Applicants must be logged in an hour before the test begins (by 8am) to ensure the proctoring environment is set up correctly.* We will disable all logins by 8.15am and not entertain any excuses.
3. It is solely the applicant's responsibility to arrange for a stable internet connection and a laptop/desktop from which you can take the test. We will not permit the test to be taken on a mobile phone.
4. The test (mock and actual) will be administered via CodeTantra. See https://docs.google.com/document/d/e/2PACX-1vS3fenmxhrZb6Sd95MQ1ruy1zmc0YMSDfP2zJo_luR19elnZqjcvnU90T6gHRLHCw/p for Code Tantra details.

Shortlisted applicants must be logged in an hour before the test begins (by 8am) to ensure the proctoring environment is set up correctly. We will disable all logins by 8.15am and not entertain any excuses.

6. We will shortlist for the interview based on your score in the written test.

7. Applicants must give preferences of 2 areas (see https://www.cse.iitb.ac.in/admission/phd21.php for all 13 areas). This will be used to schedule interviews of those shortlisted for interviews. The preferences will be collected via a Google form that will be sent to all shortlisted applicants. *Those applicants selected for interviews must fill this form by May 04, 17.00 hrs.* The implication of choosing an area is that you will be offered a research seminar only in your chosen area and that your Ph.D. thesis will also be in this area. Therefore your chances of finding a Ph.D. guide are tied to doing well in your chosen area. Hence **choose your areas to be interviewed in carefully. We will not allow any changes once the form is submitted.**

8. The **interviews** will be conducted online during **May 06-25, 2021**, Details of this (zoom/google meet etc) will be communicated to applicants by the CSE office. The results will be available on the IITB portal by May 30,2021.

9. We have **one RAP position** (https://www.cse.iitb.ac.in/admission/phdproj21.php). In case you are selected under RAP, you commit to working under the respective faculty for your PhD, and advisor pairing happens at the time of admission itself.

M.Tech Admissions 2021

For those applicants in the TA category admission will be direct admission based on GATE score. There will not be any additional test/interviews. Offers will be made via COAP. .

RA/RAP : first round Interviews - May 25-27, 2021
We have the following **Institute RA positions and RAP positions** (RAP positions are on a specific project). See the descriptions at https://www.cse.iitb.ac.in/admission/raproj21.php.

- There will be two rounds of interviews. The first round will be on May 25-27, 2021. The top 150 applicants with GATE score (GN/EWS 775, OBC-NC 698, SC.ST/PwD 517) and above are shortlisted for the first round of interviews. The shortlist for the interview

preferences among these 5 projects by mentioning priorities 1 to 5, along with a declaration that they have not accepted any positions via COAP in the first two rounds. A link to a Google form will be shared for this purpose.

- If we do not fill all positions in the first interview round, we will have a second round (exact dates TBD) where additional applicants with GATE cut off (GN/EWS 700, OBC-NC 630, SC/ST/PwD 467) will be shortlisted. This is after first round results are announced, and we have a wait list. The number of applicants shortlisted will depend on the number of positions still open.