



# INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Powai, Mumbai – 400 076.

## Admission to Post-Graduate Programmes

Applications are invited for admission to the following Post-Graduate Programmes for the Academic Year 2009-09 starting from **July 2009**

**All admission to Post-Graduate Programmes to all categories is subject to**

**1. Ph.D. & M.Tech.: FIRST CLASS or 60% MARKS (55% for SC / ST)**

**&**

**2. M.Des. & M.Phil : 55% Marks (50% SC/ST) in Qualifying Examination**

| Programme / Department | Minimum Eligibility Criteria<br><i>(All admission are subject to FIRST CLASS or 60% Marks (55% for SC / ST). This is general eligibility criteria, however, applicant must satisfy the eligibility criteria specified by the respective Departments / Centres / Schools/ ID Groups )</i>   |
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| <b>M.Tech.</b>         |  |
| AEROSPACE ENGINEERING  | <p>a) Candidates having in Bachelor's degree ( B.E. / B.Tech. or equivalent) in Aeronautical / Aerospace are eligible for admission to any of the specializations (AE1, AE2, AE3 &amp; AE4) with valid GATE score in any discipline.</p> <p>b) Bachelor's degree in other branches of Engineering (i.e. Mechanical, Civil, Electrical, Electronics, Instrumentation or allied branches) are eligible for admission to specific specializations of Aerospace Engineering, if they have valid GATE score in disciplines as shown in the table below:</p> <p style="text-align: center;"><b>Specialization Eligibility</b></p> <p><b>Aerodynamics (AE1)</b><br/>Bachelor's degree in Mechanical Engg. / Civil Engg. with valid GATE score in ME / CE.</p> <p><b>Dynamics &amp; Control (AE2)</b><br/>Bachelor's degree in Mechanical Engg./Electrical /Electronics/Instrumentation Engg. With Valid GATE score in ME/EE/EC/IN</p> <p><b>Aerospace Propulsion (AE3)</b><br/>Bachelor's degree in Mechanical Engg. with valid GATE score in ME.</p> <p><b>Aerospace Structure (AE4)</b><br/>Bachelor's degree in Mechanical Engg. / Civil Engg. with valid GATE score in ME / CE.</p> <p>c) Candidates with Bachelor's degree as mentioned above with two years of relevant work experience but do not have valid GATE score, are also eligible for admission, if their candidature is sponsored by the employer. <b>However, they are not eligible for award of Teaching / Research Assistantship.</b></p> |
| CHEMICAL ENGINEERING   | Candidates with Bachelor's degree in Chemical Engineering or equivalent with a valid GATE score in Chemical Engineering (CH) are eligible to the M.Tech. programme in Chemical Engineering.  |
| CIVIL ENGINEERING      | Candidates with Bachelor's degree in Civil Engineering or equivalent with valid GATE score in any discipline are eligible to apply for any of the five specializations.  |

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| <b>COMPUTER SCIENCE &amp; ENGINEERING</b>        | <p>Bachelor's degree in Engineering / Master's degree in Science / MCA (with Physics and Mathematics at B.Sc. level) or equivalent degree with a valid GATE score in CS / IT discipline.</p> <p>Valid GATE score in CS / IT is required for all applicants (including Project Staff (PS) / Institute Staff (IS) and Sponsored candidates).</p>   |
| <b>EARTH SCIENCES(GS&amp; PG)</b>                | <p>a) <b>Geoexploration</b> : Candidates having Master's degree or equivalent in Geology / Applied Geology / Geophysics / Geochemistry <b>with valid GATE score in Geology &amp; Geophysics</b> are eligible for admission.</p> <p>b) <b>Petroleum Geoscience</b> : Candidates having Master's degree or equivalent in Geology / Applied Geology / Geophysics / Applied Geophysics <b>with valid GATE score in Geology &amp; Geophysics</b> are eligible for admission.</p>  |
| <b>ELECTRICAL ENGINEERING</b>                    | <p><b>“For admission under TA category, students are required to have valid GATE score in GATE subjects EC / EE / IN / PH / CS”.</b></p> <p><b>EE1 (Communication Engineering):</b> Bachelor's degree in Computer Science and Engineering, Electrical Engineering, Electronics Engineering, Telecommunications Engineering, Engineering Physics OR Master's degree in Physics (with specialization in Electronics) or Electronic Sciences with valid GATE score in CS, EC, EE or PH.</p> <p><b>EE2 (Control and Computing):</b> Bachelor's degree in Aeronautical / Aerospace Engineering, Chemical Engineering, Computer Science and Engineering, Electrical Engineering, Electronics Engineering, Telecommunication Engineering, Instrumentation Engineering, Mechanical Engineering, Metallurgical Engineering, Engineering Physics OR Master's degree in Physics, Mathematics with valid GATE score in CH, CS, EC, EE, IN, ME, MT, PH, MA, XE.</p> <p><b>EE3 (Power Electronics &amp; Power Systems):</b> Bachelor's degree in Computer Science and Engineering, Electrical Engineering, Electronics Engineering, Telecommunication Engineering, Instrumentation Engineering with valid GATE score in CS, EC, EE or IN.</p> <p><b>EE4 (Microelectronics):</b> Bachelor's degree in Computer Science, Electrical Engineering, Electronics Engineering, Telecommunication Engineering, Engineering Physics, Instrumentation Engineering OR Master's degree in Physics or Electronic Sciences with valid GATE score in CS, EC, EE, IN or PH.</p> <p><b>EE5 (Electronic Systems) :</b> Bachelor's degree in Biomedical Engineering, Electrical Engineering, Electronics Engineering, Instrumentation Engineering, Telecommunication Engineering, Engineering Physics OR Master's degree in Physics (with specialization in Electronics) with valid GATE score in EC, EE, IN or PH.</p> |
| <b>ENERGY SCIENCE &amp; ENGINEERING</b>          | <p>Candidates with Bachelor's degree in Mechanical, Electrical, Chemical, Energy Systems, Thermal Power, Automobile, Aerospace, Aeronautical, Metallurgical or Civil Engineering with valid GATE score in any discipline are eligible for admission.</p>   |
| <b>MECHANICAL ENGINEERING</b>                    | <p>The qualifications necessary for admission to the various specialization are as follows :</p> <p>a) <b>Thermal and Fluids Engineering:</b> Bachelor's degree in Mechanical Engineering or Aeronautical/ Aerospace Engineering or Automobile Chemical Engg. with valid GATE score in any discipline.</p> <p>b) <b>Design Engineering:</b> Bachelor's degree in Aerospace Engineering, Mechanical Engineering or Production Engineering or Automobile Engg. or Machine Tool Engineering with valid GATE score in any discipline.</p> <p>c) <b>Manufacturing Engineering:</b> Bachelor's degree in Mechanical Engineering, Production Engineering or Machine Tool Engineering or Industrial Engineering with valid GATE score in any discipline.</p>   |
| <b>METALLURGICAL ENGINEERING &amp; MATERIALS</b> | <p><b>Eligibility for Materials Science</b></p> <p>Candidates having in Bachelor's degree in Ceramic, Chemical, Electrical, Electronics, Electrochemical, Mechanical, Metallurgical Engineering, Engineering Physics with valid GATE score OR in M.Sc. degree in</p>   |

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| CORROSION SCIENCE & ENGINEERING  | <p>Chemistry, Materials Science, Physics with valid GATE score in any discipline are eligible for admission. AMIE/AMIIM are also eligible.</p> <p><b><u>Eligibility for Process Engineering</u></b><br/>Candidates having Bachelor's degree in Chemical, Electrochemical, Mechanical, Metallurgical Engineering with valid GATE score OR in M.Sc. in Chemistry (General or Specialization in Physical or Inorganic Chemistry), Materials Science with valid GATE score in any discipline are eligible for admission. AMIE/AMIIM are also eligible.</p> <p><b><u>For above specializations, the applicants with M.Sc. qualifying degree, Mathematics as a subject at his / her B.Sc. degree level is an essential requirement.</u></b></p> <p><b><u>Eligibility Steel Technology</u></b><br/>Candidates having in Bachelor's degree in Chemical, Mechanical, Metallurgical Engineering with valid GATE score are eligible for admission.</p> <p>Bachelor's degree in Aeronautical / Aerospace, Chemical, Civil, Electrical, Electro Chemical, Mechanical, Metallurgical Engineering with valid GATE score OR Master's degree in Chemistry / Material Science / Ceramics / Petrochemical with valid GATE score in any discipline. AMIE/AMIIM are also eligible.</p> |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH                             | Candidates having Bachelor's degree in any branch of Engineering with valid GATE score in any discipline are eligible to apply.   |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| SYSTEMS AND CONTROL ENGINEERING  | Candidates having Bachelor's degree in Aeronautical / Aerospace, Chemical, Electrical, Electronics, Instrumentation, Mechanical, Metallurgical Engineering with valid GATE score in one of these disciplines. <b>Candidates should have undergone a course in Control Theory.</b>   |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| ENVIRONMENTAL SCIENCE AND ENGINEERING                                      | Candidates having Bachelor of Engineering degree in Aeronautical / Aerospace, Agricultural, Chemical, Civil, Energy, Biotechnology, Environmental, Mechanical, Metallurgical, Mining, Production, Petrochemical Engineering with valid GATE score OR Master of Science degree (with Mathematics at the Higher Secondary / Intermediate level) in Atmospheric Science, Biochemistry, Biotechnology, Chemistry, Earth Sciences, Environmental Toxicology, Environmental Sciences, Life Sciences, Meteorology, Microbiology and Physics with valid GATE score in any of these discipline are eligible for M.Tech admission.  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| CENTRE OF STUDIES IN RESOURCES ENGINEERING (Natural Resources Engineering) | <p>Candidates with Bachelor degree in Engineering / Masters degree in Science (<b><i>preceded By Bachelor degree in Science</i></b>) with valid GATE score in any of the following papers are eligible for admission to this programme.</p> <p><i>Engineering &amp; Science discipline:</i></p> <table data-bbox="703 1547 1230 1861"> <tr><td>Agricultural Engg.</td><td>AG</td></tr> <tr><td>Civil Engg.</td><td>CE</td></tr> <tr><td>Computer Science &amp; Engg.</td><td>CS</td></tr> <tr><td>Electronics &amp; Communication Engg.</td><td>EC</td></tr> <tr><td>Electrical Engg.</td><td>EE</td></tr> <tr><td>Environmental Engineering</td><td>EV</td></tr> <tr><td>Geology &amp; Geophysics</td><td>GG</td></tr> <tr><td>Information Technology</td><td>IT</td></tr> <tr><td>Mathematics</td><td>MA</td></tr> <tr><td>Mining Engg.</td><td>MN</td></tr> <tr><td>Physics</td><td>PH</td></tr> </table> <p><i>Engineering Sciences (XE) with Qualifying Papers</i></p> <p>Computational Science<br/>Electrical Sciences<br/>Environmental Sciences<br/>* Mathematics at 10+2 level is essential.</p>   | Agricultural Engg. | AG | Civil Engg. | CE | Computer Science & Engg. | CS | Electronics & Communication Engg. | EC | Electrical Engg. | EE | Environmental Engineering | EV | Geology & Geophysics | GG | Information Technology | IT | Mathematics | MA | Mining Engg. | MN | Physics | PH |
| Agricultural Engg.   | AG  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Civil Engg.  | CE  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Computer Science & Engg.   | CS  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Electronics & Communication Engg.  | EC  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Electrical Engg.   | EE  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Environmental Engineering  | EV  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Geology & Geophysics   | GG  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Information Technology   | IT  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Mathematics  | MA  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Mining Engg.   | MN  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |
| Physics  | PH  |                    |    |             |    |                          |    |                                   |    |                  |    |                           |    |                      |    |                        |    |             |    |              |    |         |    |

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| <p><b>CENTRE FOR TECHNOLOGY ALTERNATIVES FOR RURAL AREAS (CTARA) (Technology and Development)</b></p>  | <p>Candidates with BE / B.Tech. in any branch with valid GATE score OR M.Sc. in any field/discipline with valid GATE score OR B.Arch / B.Tech. (Agri.) with valid GATE score.</p>   |
| <p><b>SCHOOL OF BIOSCIENCES &amp; BIOENGINEERING (Biomedical Engg.)</b></p>  | <p>i. B.Tech / B.E. in Biomedical, Chemical, Computer Science, Electrical, Electronics, Instrumentation, Mechanical Engineering, Metallurgy and Materials Science, Telecommunications Engineering and Engineering Physics OR</p> <p>ii. M.Sc. or equivalent in Biochemistry, Biophysics, Biotechnology, Ceramics, Chemistry, Electronics, Ergonomics, Materials Science, Mathematics, Molecular Biology, Physics and Physiology OR</p> <p>iii. M.B.B.S. OR *</p> <p>iv. M. Pharm OR *</p> <p>v. B.V.Sc., B.D.S and B.Pharm degree (Duration 4 years or more) *</p> <p>and Valid GATE score in any discipline for engineering and Science degree holder or AIIMS / All India MCI / JIPMER / PGI Chandigarh / AFMC-Pune / DNB Part I national level medical postgraduate entrance examinations or GATE Life Sciences examination for medical and biological sciences.</p> <p><i>* Candidate with qualifications mentioned against (iii), (iv) &amp; (v) must submit a certificate for their having in qualifying degrees, failing which, they will not be eligible for admission to M.Tech in Biomedical Engineering</i></p> <p>All India level Pre-M.D.S / M.V.Sc. Selection examination for B.V.Sc., B.D.S and B.Pharm. Eligibility / rank certificates of all such entrance examinations are required.</p>   |
| <p><b>Eligibility requirements for candidates with Professional Degrees :</b></p> <p><b>Specific requirements for some Departments :</b></p> | <p>Candidates who have passed the Associate Membership Examination (AMIE) conducted by recognized professional bodies (like Institution of Engineers (India), Institute of Chemical Engineers, Aeronautical Society of India, Institute of Electronics &amp; Telecommunication Engineers, etc.) are eligible to apply for appropriate M.Tech. Programme provided --</p> <p>the examination is recognized as equivalent to B.E. / B.Tech., must have First Class or 60% marks (55% for SC / ST), minimum of two years of professional experience after passing the final examination, Valid GATE score.</p> <p>i. Candidates applying to M.Tech. Programme in <b>Chemical Engineering</b> must have GATE specialization paper in 'CH'.</p> <p>ii. Candidates applying to <b>Computer Science &amp; Engg.</b> must have GATE specialization paper in 'CS / IT'.</p> <p>iii. IIT B.Tech. with CPI / CGPA of 8.00 and above (out of 10.00) are exempted from requirement of GATE percentile.</p> <p>iv. All Sponsored categories candidates (i.e. sponsored by Industry / Educational Institute, Project Staff, Institute Staff, etc.) without valid GATE score should have minimum 2 years of relevant work experience and qualifying examination. However, candidates applying to M.Tech. in Computer Science &amp; Engineering must have valid GATE score in CS / IT.</p> <p><b>The option of 2-years of relevant professional experience in place of valid GATE score is not applicable to the candidates applying for Computer Science &amp; Engineering.</b></p> <p><b>In addition to the above, candidates should also satisfy the eligibility criteria specified by the respective department as mentioned against concerned department(s) in the M.Tech. Brochure.</b></p> |
| <p><b>AERB Fellowship:</b></p>   |   |

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|   | <p><b><u>Admission to AERB Sponsored M.Tech. Programme.</u></b></p> <p>Admission to M.Tech. Programme in Energy Systems Engineering and Mechanical Engineering under Atomic Energy Regulatory Board (AERB) Scheme.(more details for AERB Scheme can be seen on website (<a href="http://www.aerb.gov.in/">www.aerb.gov.in/</a>))</p> <p><b>Eligibility :</b> B.Tech / B.E in Mechanical, Electrical, Chemical, Aeronautical, Civil, Metallurgical Engg. or allied disciplines with Valid GATE score.</p> <p><b>As per this scheme, the selected candidates would receive a monthly stipend of Rs.11,000/- and a one time education material allowance of Rs.5000/-. The candidates would have to execute a bond to serve AERB for a period of three years.</b></p> <p>Applicants of EN &amp; ME should give their clear willingness to consider their candidature under AERB scheme.</p> |
| <b>Ph.D.</b>                              |  |
| <b>AEROSPACE ENGINEERING</b>              | <p>i. B.Tech. / M.Tech. or equivalent degree in Aerospace or Mechanical Engineering OR</p> <p>ii. B.Tech. / M.Tech. degree in other branches of engineering may be considered for research areas consistent with the academic background and special interests.</p> <p>Candidates with Bachelor's degree in engineering must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</p>   |
| <b>CHEMICAL ENGINEERING</b>               | <p>i. B.Tech. / M.Tech. or equivalent degree in Chemical Engineering OR</p> <p>ii. B.Tech. / M.Tech. or equivalent degree in other branches of Engineering may be considered in areas consistent with the research areas of the department OR</p> <p>iii. M.Sc. in disciplines consistent with the research areas of the department.</p> <p><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p>  |
| <b>CHEMISTRY</b>                          | <p>M.Sc. or equivalent degree in Chemistry / Physics / Biochemistry / Life Sciences / Pharmacy / Material Science / Biotechnology.</p> <p><b>Candidates with masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p>  |
| <b>CIVIL ENGINEERING</b>                  | <p>i. B.Tech. / M.Tech. or equivalent degree in Civil Engineering OR</p> <p>ii. B.Tech. / M.Tech. degree in any branch of Engineering OR</p> <p>iii. M.Sc. degree in any branch of Science may be considered for research areas consistent with the academic background and special interests.</p> <p><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p>  |
| <b>COMPUTER SCIENCE &amp; ENGINEERING</b> | <p>i. Master's Degree in Engineering/Technology<br/>or</p> <p>ii. Master's Degree in Science or Bachelor's degree in Engineering / Technology. Candidates meeting this requirement also fulfill one of the following additional requirement:<br/>Valid GATE score<br/>CSIR/UGC/NBHM/DBT award<br/>Minimum of 2 years of professional work experience<br/>(MCA Degree will be considered as equivalent to Master's Degree in Science).</p>  |
| <b>EARTH SCIENCES</b>                     | <p>i. M.Sc. / M.Tech. / M.Sc.(Tech.) / M.Phil. (2-year) degree in Geology, Geophysics, Geochemistry or equivalent OR</p> <p>ii. M.Sc. / M.Tech. / M.Sc. (Tech.) / M.Phil. (2-year) degree in Physics, Chemistry, Mathematics, Life Sciences, Marine Sciences, Atmospheric Sciences or equivalent and having Geology / Physics / Geochemistry at the B.Sc. stage as principal subjects.</p>   |

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|  | <p><b>Candidates with Bachelor's degree in Engineering or Masters degree in Science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p> <p>Candidates with in Postgraduate degree in Science / Engineering and employed in a field / research area related to Earth Sciences may be considered for Ph.D. programme as external candidates, on a case-to-case basis, depending on the research interest of the Department.</p>  |
| <b>ELECTRICAL ENGINEERING</b>                          | <p>i. B.E. / B.Tech. / M.E. / M.Tech. or equivalent degree in Computer Science, Computer Science &amp; Engineering, Computer Engineering, Electrical Engineering, Electronics Engineering, Engineering Physics, Telecommunication Engineering, Instrumentation Engineering, Biomedical Engineering. Such candidates are eligible for research areas consistent with their academic background and special interests OR</p> <p>ii. Master of Science in Mathematics, Physics, Electronics with an interest in Electrical Engineering Sciences.</p> <p><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p>  |
| <b>ENERGY SCIENCE &amp; ENGINEERING</b>                | <p>i. B.Tech. / M.Tech. Degree in any of the following branches of engineering: Aeronautical / Aerospace, Chemical, Civil, Electrical, Energy, Mechanical, Metallurgical OR</p> <p>ii. M.Sc. in Chemistry / Physics / Mathematics with a good academic record and a minimum of two years of relevant engineering experience in an energy related field.</p> <p><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p>  |
| <b>HUMANITIES &amp; SOCIAL SCIENCES</b>                | <p>i. M.A. / M.Com. or equivalent degree. OR</p> <p>ii. Master's degree in Science / Graduate Degree in Engineering / Technology may be considered for research areas consistent with the academic background and special interests OR</p> <p>iii. M.Phil. degree in any of the six disciplines (pertaining to the research areas listed in the Ph.D. boucher) or in any allied subjects or in "Humanities and Social Sciences with specialization in Planning and Development" awarded by IIT Bombay.</p>  |
| <b>MATHEMATICS</b>                                     | <p>M.A. / M.Sc. in Mathematics / Statistics / Computer Science OR M. Stat.</p> <p><b>Candidates with Masters degree in Arts / Science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p>  |
| <b>MECHANICAL ENGINEERING</b>                          | <p>i. B.Tech. / M.Tech. or equivalent degree in Mechanical Engineering <b>with First class or 60% marks (55% for SC/ST) at UG &amp; PG levels</b> OR</p> <p>ii. B.Tech. / M.Tech. degree or equivalent in Production Engineering / Industrial Engineering / Aerospace Engineering <b>with First class or 60% marks (55% for SC/ST) at UG &amp; PG levels</b> may be considered OR</p> <p>iii. B.Tech. / M.Tech. Degree in other branches of Engineering / Technology with an outstanding academic record may also be considered for research areas consistent with their academic background and special interests of the Department.</p> <p><b>Candidates with Bachelor's degree in engineering must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p> |
| <b>METALLURGICAL ENGINEERING AND MATERIALS SCIENCE</b> | <p>i) B.Tech./M.Tech. in Ceramic, Chemical, Electrical, Electronics, Electrochemical, Mechanical / Production / Manufacturing, Metallurgical, Materials Engineering, Engineering Physics OR AMIE/AMIIM are also eligible.</p> <p>ii) M.Sc. degree in Chemistry, Materials Science, Physics are eligible for admission. For those with M.Sc. degree, mathematics as a subject at B.Sc. degree level is an essential requirement.</p>   |
| <b>CORROSION SCIENCE &amp; ENGINEERING</b>             | <p>i) B.Tech. / M.Tech. in Corrosion Science and Engineering /</p>  |

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|   | <p>Metallurgical Engineering / Materials Science Engineering / Electrochemical Engineering / Chemical Engineering / Aerospace Engineering / Electrical Engineering / Mechanical Engineering / Civil Engineering OR</p> <p>ii) Master's Degree in Chemistry or Materials Science.</p> <p><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p> <p>The candidates are eligible for research areas consistent with their academic background and special interests.</p>   |
| <b>PHYSICS</b>  | <p>i) M.Sc. or equivalent degree in Physics / Chemistry / Mathematics OR</p> <p>ii) B.Tech. or equivalent degree in Aerospace Engineering / Chemical Engineering / Civil Engineering / Electrical Engineering / Mechanical Engineering / Metallurgical Engineering / Computer Science / Engineering Physics.</p> <p><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p>  |
| <b>INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH</b>                       | <p>i) Master's degree in any branch of Engineering with adequate exposure to Industrial Engineering and Operations Research OR</p> <p>ii) M.Sc. in Mathematics, Statistics or Operations Research with an excellent academic record OR</p> <p>iii) Bachelor's degree in any branch of Engineering with an excellent academic record.</p> <p><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p>  |
| <b>SYSTEMS AND CONTROL ENGINEERING</b>                                      | <p>BE./B.Tech./M.E./M.Tech in any branch of Engineering with good knowledge of Systems &amp; Control Engineering concepts and matching research interest. Candidates with only B.E./B.Tech. Degrees Should have a valid GATE score and consistently excellent academic record.</p>   |
| <b>ENVIRONMENTAL SCIENCE AND ENGINEERING</b>                                | <p>i. Bachelor or Master of Engineering degree in Aeronautical / Aerospace, Agricultural, Atmospheric Science, Chemical, Civil, Energy Biotechnology, Environmental, Mechanical, Metallurgical, Mining OR</p> <p>ii. Master of Science degree (<b>Mathematics at the Higher Secondary/Intermediate Level</b>) in Atmospheric Sciences, Biochemistry, Biotechnology, Chemistry, Earth Sciences, Environmental Toxicology, Environmental Science, Life Sciences, Medical Sciences, Meteorology, Microbiology, Physics, Public Health &amp; Statistics are eligible for Ph.D. admission.</p> <p><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p> |
| <b>INDUSTRIAL DESIGN CENTRE (Ph.D. in Design)</b>                           | <p>i. M.Des. / M.Arch. / M.Tech. / M.Phil. / MFA / Post-Graduate Diploma in Design of NID, Ahmedabad and equivalent OR</p> <p>ii. B.Des. / B.Arch. / BFA / MA / M.Sc. / Under-Graduate Diploma in Design of NID, Ahmedabad or equivalent degree with exceptionally outstanding design related work <u>with a valid CEED score</u>.</p> <p><b>Candidates with a minimum of three years of relevant professional experience without CEED scores can also be considered, however, such candidates will not be awarded Teaching / Research Assistantship.</b></p>  |
| <b>CENTRE OF STUDIES IN RESOURCES ENGINEERING (Natural Resources Engg.)</b> | <p>i. B. Tech./B.E. in any branch of engineering OR</p> <p>ii. M.Sc. in any branch of science with Mathematics as a subject upto 10+2 level OR</p> <p>iii. M.Tech./M.E. in any branch of engineering</p> <p><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b></p>  |

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|   |       | The applicant should have a relevant background to carryout research in the field of Natural Resources Engineering. For more details please visit ( <a href="http://www.csre.iitb.ac.in">www.csre.iitb.ac.in</a> )   |
| <b>CENTRE FOR RESEARCH IN NANOTECHNOLOGY AND SCIENCE</b>  | i.    | M.Tech. In Electrical, Mechanical, Civil, Metallurgical, Materials, Chemical, Biomedical Engineering, Energy Science and Engineering and Environment Science and Engineering OR  |
|   | ii.   | M.Sc. In Physics, Chemistry, Biological and Environmental Science or Bachelors Degree in above mentioned Engineering Discipline with valid GATE score or award of CSIR/UGC/DBT Research Fellowship.  |
| <b>CENTRE FOR TECHNOLOGY ALTERNATIVES FOR RURAL AREAS (CTARA) (TECHNOLOGY &amp; DEVELOPMENT) (TD)</b> |       | B.Tech./M.Tech. Degree in any branch of Engineering OR<br>M.Sc. Degree in any discipline.<br>Adequate Exposure/Experience in carrying out Filed work and/or Technology Transfer/Project Management and to Contemporary International issues ralted to Technology and Development is considered desirable.<br><b>Candidates with Bachelor's degree in engineering or masters degree in science must have a valid GATE score to become eligible for the Teaching / Research Assistantship provided by the Institute.</b> |
| <b>SHAILESH J. MEHTA SCHOOL OF MANAGEMENT</b>   |       | B.E. / B.Tech. or equivalent with minimum of 2 years of relevant work experience OR  |
|   | vi.   | M.E. / M.Tech. or equivalent degree <b>with First class or 60% marks (55% for SC/ST)at graduation and post graduation level</b> OR   |
|   | vii.  | Master of Management / M.B.A. or equivalent <b>with First class or 60% marks (55% for SC/ST) at graduation and post graduation level</b> OR  |
|   | viii. | M.Sc. / M.A. / M.Com. / LLM / MCA or equivalent <b>with First class or 60% marks (55% for SC/ST) at graduation and post graduation levels and 1 year of relevant work experience.</b>  |
|   | ix.   | <b>CA/CFA (USA) with First class or 60% marks (55% for SC/ST) in the preceding degree and 1 year relevant experience.</b>  |

**SCHOOL OF BIOSCIENCES AND  
BIOENGINEERING**

**a) BIOTECHNOLOGY:**

- i. M.Sc. or equivalent degree in subjects related to Life Sciences / Physics / Chemistry OR B.Tech Biotechnology with
- a) a valid GATE score (eligible for Institute Taship/RAship) or
  - b) a valid CSIR/UGC/DBT JRF (eligible for FA category) or
  - c) a valid ICMR JRF (not linked to ICMR project) (eligible for FA category) or
  - d) Two years of relevant post M.Sc. Research experience (eligible only for project positions)
  - e) UGC/CSIR (Lectureship) eligible only for project position.

**OR**

- ii. *First Class or 60% marks(55%for SC/ST) in M.Tech or equivalent degree in Biotechnology.*

*NET Lecturership holders can be considered for admission, provided they are having minimum of two years of professional experience from a reputed organization, however, they will not be considered for Teaching Assistantship / Research Assistantship.*

**b) BIOMEDICAL ENGINEERING:**

- i. M.Tech / M.E. in Biomedical, Chemical, Computer Science, Electrical, Electronics, Instrumentation, Mechanical Engineering, Metallurgy and Materials Science, Telecommunications Engineering, Engineering Physics or equivalent degree OR
- ii. B.Tech / B.E. in above mentioned area or equivalent with valid GATE scores OR
- iii. M.Sc. or equivalent in Biochemistry, Biophysics, Biotechnology, ceramics, Chemistry, Electronics, Ergonomics, Material Science, Mathematics, Molecular Biology, Physics and Physiology with valid GATE / CSIR / UGC / DBT / ICMR (Not Lectureship) fellowships. *Candidate with B.Tech/ B.Pharm with 60% (55% for SC / ST) plus 2 years Research experience may be considered but they will not be eligible for TA/RA ships provided by Institute.* OR
- iv. MBBS degree or graduate degree in occupational Psychotherapy or BDS with AIIMS / All India MCI / JIMPER / PGI Chandigarh / AFMC Pune / DNB Part I national level postgraduate entrance examinations or GATE Life Sciences scores or CSIR / UGC / DBT / ICMR fellowships (Not Lectureship) OR
- v. **M.Pharm / MD / MS / MDS / MVSc or equivalent degree. #**  
*# Applicant with these qualifying degrees must submit a certificate for their having 60% (55% for SC / ST), failing which, they will not be eligible for admission.*

*NET Lecturership holders can be considered for admission, provided they are having minimum of two years of professional experience from a reputed organization, however, they will not be considered for Teaching Assistantship / Research Assistantship.*

**c) CHEMICAL BIOLOGY:**

- i. M.Sc. or equivalent degree in Chemistry / Biochemistry / Biotechnology / Biological Science / Life Science / Materials Science / Pharmacy / Physics with valid GATE score or a valid award of a CSIR / UGC / DBT / ICMR Research Fellowship.
- ii. *NET Lecturership holders can be considered for admission, provided they are having minimum of two years of professional experience from a reputed organization, however, they will not be considered for Teaching Assistantship / Research Assistantship.*

d) **BIOCHEMICAL ENGINEERING:  
ELIGIBILITY FOR ADMISSION**

**First Class or 60% marks (55% for SC / ST) in :**

B.Tech / BE / Equivalent or M.Tech / ME / Equivalent in Chemical Engineering, Biotechnology, Biochemical Engineering, Biomedical Engineering or  
M.Sc. or equivalent in Biological and life sciences, physics, chemistry, biophysics, mathematics, Computer applications, Bioinformatics with valid GATE score or a valid award of a CSIR/UGC/DBT/ICMR Research Fellowship.

*NET Lecturership holders can be considered for admission, provided they are having minimum of two years of professional experience from a reputed organization, however, they will not be considered for Teaching Assistantship / Research Assistantship.*

**Note:**

1. **Candidates not having a valid GATE score** or CSIR / UGC / NBHM / DBT award can be considered for admission to the Ph.D. programme if they have minimum of 2 years of professional work experience (after passing qualifying degree), provided they fulfill other eligibility criteria fixed for department of his / her choice. **However, such students are not entitle for any Teaching / Research Assistantship, etc.**
2. **In addition to the above, candidates should also satisfy the eligibility criteria specified by the respective Department / Centre / School / ID groups as mentioned in the Ph.D. brochure.**

|  |  |
|--|--|
| M.Phil.<br>(Planning & Development)                    | Master Degree in Arts, Commerce or equivalent . OR<br>B.Tech. / M.Sc. degree or equivalent with adequate background in Social Sciences.  |
| M.Des.<br>Industrial / Product Design:                 | Bachelor's Degree / Diploma or equivalent Degree / Diploma in Engineering, Architecture, Design, Interior Design OR Professional Diploma of NID (National Institute of Design, Ahmadabad) / Professional Diploma of CEPT (Centre for Environmental Planning & Technology, Ahmedabad) (5-year programme) OR 5-year GD Art degree / diploma after 10 <sup>th</sup> standard with one year experience in the relevant area of study may be considered for admission.<br><br>Candidates holding one of the above qualifying degree / diploma and valid CEED score are eligible to apply.<br>(All Degree / Diploma / Professional Courses must satisfy 10+2+4 or 10+1+5 pattern or more)  |
| Visual Communication / Animation / Interaction Design. | Bachelor's Degree / Diploma or equivalent Degree / Diploma in Engineering, Architecture, Design, Interior Design OR Professional Diploma of NID (National Institute of Design, Ahmadabad) / Professional Diploma of CEPT (Centre for Environmental Planning & Technology, Ahmedabad) (5-year programme) OR BFA-Professional courses in Applied Arts / Fine Arts OR Masters Degree in Arts / Science / Computer Applications with good potentials and aptitude for arts and designing OR 5-year GD Art degree / diploma after 10 <sup>th</sup> standard with one year experience in the relevant area of study may be considered for admission.<br><br>Candidates holding one of the above qualifying degree / diploma and valid CEED score are eligible to apply.<br>(All Degree / Diploma / Professional Courses must satisfy 10+2+4 or 10+1+5 pattern or more) |

- Reservation for SC / ST / PC (Physically Challenged) candidates as per Government of India rules.
- Wherever there is specific requirement of percentage of marks in qualifying examination, it is relaxed by 5% for SC / ST applicants.
- Candidates appearing in the final year of qualifying degree examination are eligible to apply, however, they must submit attested copies of qualifying degree certificates / final transcripts on or **before 30<sup>th</sup> September, 2009**, failing which admission will stand cancelled.
- A separate application form should be used for each programme.

Candidates applying for M.Tech. Programme should purchase/download only **one application form** with provision of applying for any number of Departments / Interdisciplinary groups / Centres / Schools and **should submit appropriate number of photocopies of the completed application form with its enclosures**. Candidates should give his / her options for specializations against each of Departments / Interdisciplinary groups / Centres / Schools (**in order of preference**) mentioned against Sr. No. 14 of the application form.

**Options given by the applicant against Sr. No. 14 of the application form will be final and further request for change/alteration/addition, if any, will not be entertained.**

Candidates applying for Ph.D. Programme can give preference for **three** Department / Interdisciplinary groups / Centre / School in one application form. **However, he must submit adequate number of sets of applications with enclosures**. For further choices, if any, additional forms may be used.

**Candidate** can download and submit the duly filled in application form along with application fee of Rs. 300/- (Rs. 150/- for SC / ST candidates) by Demand Draft drawn in favour of '**Registrar, IIT Bombay**' payable at SBI or Canara Bank, IIT Powai branch. **Application Forms without Demand Draft will not be considered.**

The brochure and application forms for all above programmes may also be obtained by post or in person from the **Deputy Registrar (Academic), IIT Bombay, Powai, Mumbai – 400 076** on payment of Rs. 300/- (Rs. 150/- for SC / ST candidates) through Demand Draft drawn in favour of '**Registrar, IIT Bombay**' payable at SBI or Canara Bank, IIT Powai branch. In case of request by post, please enclose a self-addressed strong cloth-lined envelope (size 27 cms X 20 cms) affixed with postage stamps of Rs. 30/-.

Application for M.Tech. programme can be submitted on-line. However, application fees along with duly signed printout of the application form should be sent to **Deputy Registrar (Academic), IIT Bombay, Powai, Mumbai-400 076**. **On-line application form will not be considered, if Demand Draft for Application fee is not received at the Academic Office on or before 15.04.2009.**

Application forms for admissions to Ph.D. Programme can be obtained & submitted throughout the year; however, such applications will be processed only twice in a year (i.e. July and December).

| <b>Programme</b> | <b>Issue of application forms beings</b> |          | <b>Last date of Issue of Application Forms</b> |          | <b>Last date of receipt of completed Application Form</b> |          |
|------------------|--|----------|--|----------|---|----------|
|                  | Online                                   | Offline  | Online   | Offline  | Online  | Offline  |
| Ph. D.           | 16/03/09                                 | 30/03/09 | 13/04/09                                       | 06/04/09 | 13/04/09  | 13/04/09 |
| M.Tech.          | 16/03/09                                 | 30/03/09 | 15/04/09                                       | 06/04/09 | 15/04/09  | 15/04/09 |
| M.Des.           | ---                                      | 08/04/09 | ----   | 02/05/09 | ----  | 02/05/09 |
| M.Phil.          | ----                                     | 03/04/09 | ----   | 15/05/09 | ----  | 15/05/09 |

**Deputy Registrar (Academic)**

**Email: [pgadm@iitb.ac.in](mailto:pgadm@iitb.ac.in)**

**Phone No: 022-2576 4008/7042/66**