

**Academic unit wise Shortlisting criteria for Assistant Professor
IIT Bombay
September 2021**

Candidates for faculty positions at IIT Bombay must satisfy the institute eligibility criteria for the corresponding position as specified in

<https://www.iitb.ac.in/en/mission-mode-faculty-recruitment-advertisement>

and the additional eligibility criteria as specified by the academic unit (Department/ Centre/ School/IDP). Satisfying the criteria does not guarantee shortlisting.

The eligibility criteria specific to academic units for the post of Assistant Professor are given below.

Aerospace Engineering

The candidates should have a strong academic and research background with basic Engineering Degree in Aerospace Engineering or allied areas. Candidates with exceptional credentials may be considered in any areas of Aerospace Engineering, in addition to the following specific areas, (i) Aerodynamics, (ii) Dynamics and Control, (iii) Aerospace Propulsion, (iv) Aerospace Structures.

Candidates should have a minimum of FIVE (5) publications in reputed refereed journals and conference proceedings at the time of the application, of which at least THREE (3) should be in Scopus/SCI-indexed journals.

Industry experience will be appropriately evaluated.

Biosciences and Bioengineering

Candidates should have research experience in the domain of Biosciences or Bioengineering. Candidates with basic degree in science should have a minimum of FIVE (5) refereed international publications in SCI indexed journals; candidates with a basic degree in engineering should have a minimum of THREE (3) such publications.

Chemical Engineering

Candidates should have a minimum of THREE (3) research publications in reputed journals included in Scopus/SCI index in areas related to Chemical Engineering.

Chemistry

Candidates should have a basic degree in Chemistry and should have a minimum of FIVE (5) (out of which at least TWO (2) from post Ph.D work) publications in Scopus/SCI indexed journals.

Civil Engineering

The candidates should have a strong academic and research background with basic Engineering Degree in Civil Engineering or allied areas. The candidates with exceptional credentials may be considered in any areas of Civil Engineering, in addition to the following specific areas, (i) Transportation systems engineering, (ii) Geotechnical engineering, (iii) Water resources engineering, (iv) Structural engineering, (v) Ocean engineering, (vi) Remote sensing engineering, (vii) Construction technology and management.

Candidates should have a minimum of THREE (3) publications in SCI-indexed reputed journals. The quality will be evaluated based on SCI Impact Factor (IF) and relative IF ranking in that field of specialization. The papers should be already published or be in the press.

Research grants received / Teaching or Industry experience / Significant National or International awards will be considered as an additional advantage.

Patents and Books: (a) A granted Patent with the candidate as main contributor will be counted as equivalent to one published journal paper. (b) Textbook / Book chapter published by reputed publisher will be considered as an additional advantage.

Computer Science & Engineering

Candidates should have a minimum of TWO (2) publications during their Ph.D. in reputed conferences or journals*.

In addition, they should have an average of at least ONE (1) publication for every year thereafter (beyond their Ph.D.) in reputed conferences or journals*; In case of faculty candidates who have spent some time in non-research industry jobs, this criterion may be relaxed, especially if they have additional publications during their Ph.D.

*Publications should be ranked B or higher from the extended CORE ranking list at https://docs.google.com/document/d/1te0saMr_qrg_QJL9IEKgLmefza_PHKcoRkcMVilnoil/edit?usp=sharing

Earth Sciences

Candidates should have a basic degree in Geology/Geophysics.

Candidates should have published a minimum of FOUR (4) research papers in SCI-indexed journals in the areas of Geology or Geophysics. The candidate must be one of the first two authors or the corresponding author in 4 papers.

Electrical Engineering

- In areas pertaining to semiconductor devices – their modeling, fabrication and characterization, a minimum of FOUR (4) high quality papers in tier-one SCI journals.
- In areas like Power, Control, Communications, Circuits and Systems, a minimum of TWO (2) high quality papers in tier-one SCI journals.

Conference Publications: Top tier conferences, which have a rigorous peer-review process, and in which the full version of the paper has to be submitted right at the stage of review, will also be considered to be equivalent to journal papers.

Post Doctoral Experience: It is preferable to have a postdoctoral experience in the areas pertaining to semiconductor devices – their modeling fabrication and characterization. In areas like Power, Control, Communications, Circuits and Systems this requirement may be relaxed.

Energy Science and Engineering

Candidates should have a minimum of THREE (3) publications in SCOPUS/SCI-E indexed journals in energy science and engineering related areas.

Environmental Science and Engineering

Candidates should have Ph.D. with a major focus in the area of Environmental Science / Engineering from reputed institution preferably with B.Tech. and M.Tech. in Environmental Science / Engineering / Management or Ph.D. with M.Sc. or M.Tech. in Environmental Science / Engineering / Management with consistently strong academic record throughout.

Candidates should have a minimum of THREE (3) publications in Scopus/SCI index reputed journals.

Each patent granted will be considered as equivalent to a quality publication in a reputed international journal.

Humanities & Social Sciences

Candidates should have published a minimum of THREE (3) papers in reputed refereed journals or other high quality publications.

Mathematics

Candidates should have published a minimum of THREE (3) publications in journals listed in AMS MathSciNet, Scopus or SCI in the areas of Mathematics or Statistics.

Mechanical Engineering

Candidates should hold **an undergraduate degree (BE/BTech) in Mechanical Engineering** and should have completed their Ph.D.'s in Mechanical/Aerospace/Applied Mechanics/Materials and Metallurgy/Production/Automobile Engineering.

Candidates should have published a minimum of THREE (03) international journal papers as first author (or the corresponding author) in the last 5 years in research fields relevant to the scope of Mechanical Engineering. These journals should be ranked in the top two quartiles (Q1 or Q2), as per the SJR (Scimago Journal & Country Rank) norms.

In case a candidate has post-Ph.D experience beyond 3 years, the candidate should have ONE (1) additional publication per year of additional experience beyond 3 years.

Candidates with an **undergraduate degree (BE/BTech) in Aerospace/Materials and Metallurgy/Applied Mechanics/Production/Automobile Engineering**, will also be considered, subject to meeting all other criteria above, but must have TWO (2) additional publications, over and above the minimum publications mentioned above.

Metallurgical Engineering & Materials Science

Candidates should have a minimum of three (3) first author peer reviewed publications in reputed journals (SCI/Scopus Indexed) in areas related to materials.

Physics

Candidates should have a minimum of THREE (3) publications in Scopus indexed refereed journals in Physics or Astronomy during PhD; Additionally an average of 1 publication per year in such journals during post-PhD career. Three years of post-PhD experience is preferred.

Centre for Policy Studies

The candidate must have experience in one of the following 5 research areas: 1) Digital Society, 2) Technology and Society, 3) Environment, Energy and Natural Resources, 4) Structural Inequalities & 5) Markets and Governance Process.

Candidates should have a minimum of THREE (3) Policy relevant publications in Reputed (*Scopus/SCI index, JSTOR, Sage, MUSE, ABDC*) journals.

ONE (1) peer reviewed book chapter/monograph can be counted as equivalent to ONE(1) publication.

Centre of Studies in Resources Engineering

The candidates should have research specialization in geoinformatics, remote sensing and their applications to earth system studies and related areas.

Candidates should have a minimum of THREE (3) publications in Scopus/SCI-indexed journals. Patent(s) granted and Book(s) published will be considered equivalent to journal publications.

Centre for Technology Alternatives for Rural Areas

Faculty applicants should have demonstrated interest and ability to: (i) identify and formalise problems of relevance to broader society, and (ii) teach in the area of technology and development.

The candidates should have strong focus on Science and Technology applications towards sustainable development using concepts in the following thematic areas:

- Food processing, Nutrition, and Public Health

- Farm Machinery, Technology Development and Dissemination
- Development, Technology, and Society
- Planning and Development including Basic Services; Monitoring & Evaluation
- Natural Resources, Public Policy and Governance

The candidates should have high quality research experience, evidenced by publications in reputed journals/conferences, book chapters, patents (filed and granted) and important case studies.

The candidates should have a minimum of THREE (3) publications in reputed international journals (Scopus/SCI indexed).

Centre for Urban Science and Engineering

Candidates with architecture, urban planning, or civil engineering degree from reputed institutes at bachelor's or master's level with significant research contributions on urban issues are preferred. However, candidates with other educational backgrounds can also be considered if the candidate has demonstrated excellent research work in urban issues.

Candidates should have published a minimum of two significant papers on urban issues in peer reviewed SCI indexed journals of high repute. The reputation of the journal will be judged based on SCI Impact Factor (IF) and relative IF ranking in that field of specialization.

IDC School of Design

Qualifications and Experience Criteria

A post graduate Degree or Diploma in Design / Arts / Applied Arts, or a post graduate Degree in Engineering / Architecture / Humanities or equivalent is required for all candidates.

For candidates with a Ph.D., the qualifications and experience criteria are as per Institute General Eligibility Criteria.

For candidates without a Ph.D. a minimum of 8 years of teaching/research/professional experience is required.

Publication Criteria

For candidates with a Ph.D., a minimum of THREE (3), Conference Papers or Journal Papers or Book Chapters or Books or Design Projects implemented or in advanced stages of implementation is required.

For candidates without a Ph.D., a minimum of SIX (6), Conference Papers or Journal Papers or Book Chapters or Books or Design Projects implemented or in advanced stages of implementation is required.

Other Criteria

For candidates without a Ph.D., a minimum of TWO (2) Awards/External Funding is required.

Exceptionally accomplished applicants without a post graduate qualification can be considered for Assistant Professor position with the following criteria: a minimum of TEN years of teaching/research/professional experience; a minimum of EIGHT(8) Conference Papers or Journal Papers or Book Chapters or Books or Design Projects implemented or in advanced stages of implementation; a minimum of THREE (3), Awards / External Funding.

Shailesh J. Mehta School of Management

Candidates should have Ph.D. in any of the following areas: Accounting, Decision Sciences, Economics, Finance, General Management, Information Systems, Management Communication, Marketing, Operations Management, Organization Behaviour & Human Resource Management, Strategic Management ,Technology Management,

A. Candidates should have published a minimum of THREE (3) papers in reputed journals as sole/first or second author (incl. accepted) in B or higher-level journals listed in ABDC 2019/ERA 2010/level 2 and above in ABS journal list

OR

B. Candidates should have published a minimum TWO (2) publications, as first/sole or second author in A or higher journals listed in ABDC 2019/ERA 2010/level 3 and above in ABS journal list / FT50

Relaxation may be granted in lieu of (ONE) 1 publication requirement in case of **(A)** above for any of the following:

- Worked for at least 2 years as Entrepreneur (Founder) /Founding team member of registered venture (incubator in IITs/IIMs or any Govt approved incubator)
- At least 2 Cases, as first/sole or second author, published in HBS/Ivey Publishers/ACR Journal

Climate Studies

The candidate should have research areas in Climate Studies or related areas.

Candidates should have a minimum of THREE (3) publications in *Scopus/SCI index* journals, as first or second author.

For the policy stream, ONE (1) peer reviewed book chapter / book / monograph can be counted as equivalent to ONE (1) publication.

Educational Technology

Candidates should have a minimum of two Educational Technology related publications in journals indexed in Scopus/SCI,

OR

one publication in journals indexed in Scopus/SCI **and** two publications in the [list of conferences identified by the department](#).

The candidate should be the first author on at least ONE (1) of the publications.

If Ph.D. is in a discipline other than ET, the candidate should have done a post-doc in ET related area, or should have research publications in ET Journals/Conferences, or should have carried out development projects in ET.

Candidates who have one or more years of post-PhD experience should have on an average ONE (1) publication per year of post Ph.D. experience in addition to the above minimum specified; papers published during/based on Ph.D. work can also be counted towards this number.

Upto **two** years of work in industry or other positions that do not offer scope for publication may be exempted from the additional publication requirements.

Industrial Engineering and Operations Research

Candidates should have a minimum of THREE (3) publications in reputed journals or refereed conference proceedings in the areas related to industrial engineering or operations research.

Journals and conference proceedings listed in Scopus or SCI or CORE or ABDC or AMS MathSciNet will be considered as reputed. Other journals and conference proceedings that are considered as reputed by the department will be listed at www.ieor.iitb.ac.in.

Systems and Control Engineering

Candidates need to have a minimum of THREE (3) publications accepted in journals indexed in INSPEC/Scopus/SCIE and/or abstracted in mathscinet.

In addition to the above minimum specified, the candidates need to have an average of at least ONE (1) publication for every year after their first full year after Ph.D. that are accepted in journals indexed in INSPEC/Scopus/SCIE and/or abstracted in mathscinet.

Each patent granted will be counted as equivalent to two journal publications and each patent filed will be counted as equivalent to 0.5 journal publications for the above criteria.