

N HERITAGE NETWORK

The **H**eritage **N**etwork

**Indo-European Network
of
Technical Higher Education Institutions**



PRESENTATION BY MS. KAVITHA G.R. (IIT MADRAS)

- The different Entrance Examinations in India (To enter Bachelor, Master and PhD Program), How to use and Understand them in the European admission Process
- Indian Grading System (IIT System)
- The Indian University Ranking System



I. DIFFERENT ENTRANCE EXAMINATIONS

ENTRANCE EXAMINATION (FOR ENGINEERING) BACHELOR PROGRAM

S.No	Exam Name	Conducting Body
1	JEE Main JEE Advance	National Testing Agency (NTA)* (For NIT's) (For IIT's conducted by IIT's)
2	BITSAT	Birla Institute of Technology and Science
3	MET	Manipal Academy of Higher Education (Earlier known as Manipal University)
4	VITEEE	VIT University

UCEED: Undergraduate Common Entrance Exam for Design (www.uceed.iitb.ac.in)

Every State has its own Entrance Exams for Engineering programs

FOR FOREIGN UNIVERSITIES, BACHELOR PROGRAM

- The **Scholastic Aptitude Test** (SAT) is a standardized **test** designed to **measure** important skills required for academic success at tertiary level, and the current version contains three main sections **measuring** basic critical reading, math, and writing skills, as well as open category not included in the final score.

The **SAT** is a multiple-choice, pencil-and-paper **test** created and administered by the College Board. The purpose of the **SAT** is to measure a high school student's readiness for college, and provide colleges with one common data point that can be **used** to compare all applicants.

- **Advance Placement** (USA and Canada) are college-level **exams** on specific subjects for **high school school students**. At many colleges and universities, a **high** enough score will earn the student college credit.



ENTRANCE EXAMINATION (FOR ENGINEERING) MASTER PROGRAM

- **GATE [Graduate Aptitude Test In Engineering](#)**
- This examination is the qualifying test for Master degree of Engineering in top engineering colleges in India. Candidates must have Bachelor's degree in architecture/engineering/technology. Even the final Bachelor degree students can apply.
- There are other qualifying exams like CEED, VITMEE, BITS. CEED: Common Entrance Exam for Design (www.ceed.iitb.ac.in)
- The **Joint Admission Test for M.Sc. (JAM)** is an admission test conducted for admission into [Master of Science \(M.Sc.\)](#) and other post-graduate science programs at the [Indian Institutes of Technology \(IITs\)](#), [Indian Institute of Science \(IISc, Bangalore\)](#), [Indian Institutes of Science Education and Research \(IISERs\)](#), [National Institute of Science Education and Research \(NISER, Bhubaneswar\)](#), National Institutes of Technology (NITs)





HERITAGE NETWORK

FOR FOREIGN UNIVERSITIES, MASTER PROGRAM

- **Graduate Record Examination (GRE)**
- The [GRE](#) is the general test that is used for admission into most graduate school programs. Administered by the Educational Testing Service (ETS), the GRE tests verbal reasoning, quantitative reasoning (math), and analytical writing (essay section). The computer-based test is available year-round at locations across the United States. [Scores](#) are available at the test center and will have the option of sending the scores to whichever schools you choose.
- TOEFL – The **Test** of English as a **Foreign** Language / IELTS – **International** English Language Testing System. ...
- LOR - Letter of Recommendation
- SOP - Statement of Purpose
- Academic grades
- Extra and co-curricular activities
- CV





HERITAGE NETWORK

ENTRANCE EXAMINATION PHD PROGRAM

- **Ph.D Admission in IITs**
- **General Eligibility:** Master's Degree in Engineering/Technology or equivalent degree, with First class or 60% marks (55% marks for SC/ST)

Such candidates must also fulfill ONE of the following additional requirements:

- Valid GATE/CEED Score.
- Junior Research Fellowship (JRF) of CSIR /UGC/NBHM/DBT or DST INSPIRE Fellowship.
- Minimum of 2 years of professional experience (acquired after obtaining the qualifying degree and completed before the starting of the semester in which admission is sought).
- For direct **Phd**: After completing Bachelors degree in relevant field one has to appear a National Level Competitive Exam (GATE). with 75% marks in bachelors or a CGPA of 7.5 or above. On the basis of your score in the exam you would be called for written tests and interview or Bachelors degree with very high CGPA /Marks (8.5 and above)
- Indian Institutes of Technology ([IIT colleges in India](#)) accept applications from interested and eligible candidates for Phd admission in IIT twice, for the academic year (July to June) and for calender year (January to December) respectively. While the eligibility criteria for PhD admission in IIT is similar, the respective IIT college reserves the right to admit aspirants as full-time research scholars and part-time research scholars. Admission is offered on the basis of an interview held usually a month before the start of the semester. This interview may be supplemented by a written test.



N HERITAGE NETWORK

FOR FOREIGN UNIVERSITY PHD PROGRAM

- **Graduate Record Examination (GRE)**
- The [GRE](#) is the general test that is used for admission into most graduate school programs. Administered by the Educational Testing Service (ETS), the GRE tests verbal reasoning, quantitative reasoning (math), and analytical writing (essay section). The computer-based test is available year-round at locations across the United States. [Scores](#) are available at the test center and will have the option of sending the scores to whichever schools you choose.
- TOEFL – The **Test** of English as a **Foreign** Language / IELTS – **International** English Language Testing System. ...
- LOR - Letter of Recommendation
- SOP - Statement of Purpose
- Research publications/ R & D work experience
- CV

II. THE INDIAN GRADING SYSTEM (IIT)



HERITAGE NETWORK

Letter Grades

Based on the performance, each student is awarded a final letter grade at the end of the semester, in each subject.

The letter grades and the corresponding grade points are as follows: 0-10 scale

Grade	Grade Points	Remarks
S	10	
A	9	
B	8	
C	7	
D	6	
E	4	
U	0	
P	-	Pass
F	0	Fail
W	0	Failure due to insufficient attendance in course
I	0	Incomplete (subsequently to be changed into pass (E to S) or U grade in the same semester).
X	0	Completed NSO/NCC/NSS requirements
Y	0	Incomplete (in NSO/NCC/NSS)



GRADE CARD



The grade card issued at the end of the semester to each student will contain the following:

- a) The course number, name of the course and the credits for each course registered in that semester.
- b) the letter grade obtained in each course
- c) the attendance code in each course
- d) the total number of credits earned by the student upto the end of that semester in each of the course categories
- e) the Cumulative Grade Point Average (CGPA) of all the courses taken from the first semester.

The GPA will be calculated according to the formula:

$$\text{GPA} = \frac{\sum (C_i \times GP)}{\sum C_i}$$

Where C_i = credit for the course, GP = the grade point obtained for the course and $\sum C_i$ = the sum of credits of all courses taken in that semester, including those in which the student has secured U and W grades.

For the cumulative grade point average (CGPA), a similar formula is used where the sum $\sum C_i$ is the sum of credits of all courses taken in all the semesters completed up to the point in time.

The CGPA based on the successfully completed courses is calculated, deleting the „U“ or „W“ grades, and is also shown separately in the grade card.





HERITAGE
NETWORK

FORMULA TO TRANSFER GRADES (IITM)

ECTS to GPA (IITM)

$$\text{GPA} = \text{ECTS} * (9/4)$$

GPA to ECTS (IITM)

$$\text{ECTS} = \text{GPA} * (4/9)$$

One Semester studies in India 60 credits (IITM)



III. INDIAN RANKING SYSTEM

The National Institutional **Ranking** Framework (**NIRF**) is a methodology adopted by the Ministry of Human Resource Development (MHRD), Government of **India**, to **rank** institutions of higher education in **India**. The Framework was approved by the MHRD and launched by Minister of Human Resource Development on 29 September 2015.

[1Formation of the NIRF](#)

[2Recommendations of the core committee](#)

[3Parameters and their weightages](#)

[3.1 Engineering, management, pharmacy and architecture institutions](#)

[3.2 Overall and colleges](#)



FORMATION OF NIRF

MHRD constituted a Committee for evolving a National Ranking Framework in 2014 and a core committee of sixteen members was formed which included Directors, IITs, NITs, IIMs, IISER and Vice Chancellors of Universities.

The terms of reference of the committee were:

Suggest a National Framework for performance measurement and ranking of Institutions and Programs

Suggest the organizational structure, institutional mechanism and processes for implementation along with time-lines of the National Ranking Framework.

The core committee identified a set of measurable parameters to be used as metrics for ranking the institutions, which were grouped into five major headings. The University Grants Commission constituted an expert committee in 2015 to develop a framework for the ranking of universities and colleges in India and the framework developed by this expert committee has been incorporated into NIRF

RECOMMENDATIONS OF THE CORE COMMITTEE

- **The metrics for ranking of engineering institutions should be based on the parameters agreed upon by the core committee.**
- The parameters have been organized into five broad heads or groups and each group has been divided into suitable sub-groups. Each broad head has an overall weight assigned to it. Within each head, the sub-heads should also have appropriate weight distributions.
- A suitable metric has been proposed which computes a score under each sub-head. The sub-head scores are then added to obtain scores for each individual head. The overall score is computed-based on the weights allotted to each head. The overall score can take a maximum value of 100.
- The committee recommended the classification of institutions into two categories:
- **Category A institutions:** These are institutions of national importance set up by Acts of Parliament, State Universities, Deemed-to-be Universities, Private Universities and other autonomous institutions.
- **Category B institutions:** These are institutions affiliated to a University and do not enjoy full academic autonomy.

PARAMETERS AND THEIR WEIGHTAGES FOR ENGINEERING, MANAGEMENT, PHARMACY AND ARCHITECTURE INSTITUTIONS

The approved set of parameter groups and the weightages assigned to them in respect of institutions offering programs in engineering, management, pharmacy and architecture are given in the following table.

Parameters	Category A institutions	Category B institutions
Teaching, learning and resources (TLR)	0.30	0.30
Research, professional practice and collaborative performance (RPC)	0.30	0.20
Graduation outcome (GO)	0.15	0.25
Outreach and inclusivity (OI)	0.15	0.15
Perception (PR)	0.10	0.10

FOR OVERALL AND COLLEGES

The approved set of parameter groups and the weightages assigned to them in respect of overall rating and for colleges are given in the following table, for 2018.

Parameters	Overall ^[15]	Colleges ^[16]
Teaching, learning and resources (TLR)	0.30	0.40
Research, productivity, impact and IPR (RPII)	0.30	0.15
Graduation outcome (GO)	0.20	0.25
Outreach and inclusivity (OI)	0.10	0.10
Perception (PR)	0.10	0.10

