



INDIA RANKINGS 2018

NATIONAL INSTITUTIONAL RANKING FRAMEWORK

Methodology for Ranking of Academic Institutions in India

(RANKING METRICS FOR OVERALL)



Ministry of Human Resource Development

1. Salient Features

- 1.1 Methodology is based on developing a set of metrics for ranking of academic institutions, based on the parameters agreed upon by the core committee.
- 1.2 These parameters are organized into five broad heads, and have been further elaborated into suitable sub-heads. Each broad head has an overall weight assigned to it. Within each head, the various sub-heads also have an appropriate weight distribution.
- 1.3 An attempt is also made to identify the relevant data needed to suitably measure the performance score under each sub-head. Emphasis here is on identifying data that the institution can easily provide or is easy to obtain from third party sources and easily verifiable, where verification is needed. This is important in the interest of transparency.
- 1.4 A suitable metric is then proposed based on this data, 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.
- 1.5 The institutions can then be rank-ordered based on their scores.

2. Eligibility for Common and Discipline Specific Rankings

- 2.1 Learning from our experience of the earlier ranking exercises, it is proposed to have the following different ways of Ranking.
 - (i) This year, all candidate institutions, ***independent of their discipline*** or nature (comprehensive or otherwise) will be given a ***common overallrank***¹, if they satisfy the criteria that they have a total of atleast 1000 student intake or enrolled students in UG and PG programs.

¹The parameters have been chosen in such a manner that these are equally relevant for various kinds of educational institutions. Data format is designed to ensure that the diversity of disciplines and their separate character are accounted for.

(ii) Institutions will also be given a discipline specific rank as relevant.

(iii) Highly focussed institutions with a single main discipline (Engineering, Medical, Law, Management, Pharmacy or UG degree colleges in Arts, Science and Commerce, etc.) with less than 1000 total sanctioned approved intake or enrolled students will be given only a discipline specific rank.

(iv) Schools or Departments of Universities or Institutions (such as Architecture, Engineering, Law Faculty, Management Departments, Pharmacy etc.) will have to register separately and provide additional data (in the format) pertaining to the respective School or Department, if they desire to be included in the discipline specific ranking list. All institutions should seriously consider this option, if they wish to position their important Faculties/Schools at the national level. **Only options available on the registration portal will be considered for discipline specific rankings².**

(v) Undergraduate Teaching institutions (including degree colleges affiliated to a university) are also invited to participate.

² If an engineering school of a University consists of a single engineering discipline with very few students, they would not be eligible for ranking even under the discipline specific category. Thus, if the engineering faculty of a University has only the Department of Electronics Engineering as its Engineering School, it need not apply for a separate discipline specific ranking under the engineering category.

(vi) Discipline specific ranks will be announced only in those disciplines where a significant number of institutions offer themselves for ranking, and the List includes some of the prominent institutions in that discipline, with an acceptable ranking score. The final decision on ranking of a discipline will therefore be decided by NIRF after analysing the data.

(vii) Open Universities and Affiliating Universities (whether State or Centre approved/funded) will not normally be registered for ranking. However, if these universities have a teaching or research campus of their own, they are welcome to participate with data pertaining only to their physical campuses. Data pertaining to their function as open or affiliating universities cannot be included in the submitted data.

(viii) Rankings will be considered only for those institutions that have graduated at least three batches of students *in full time UG or PG programs, where the duration is not less than three years for the UG programs and two years for the PG programs.*

2.2 While score computations for the parameters are similar for both kinds of rankings (i.e., overall or discipline specific) on most counts, the weights are somewhat different on a few parameters, to take into account discipline specific issues.

3. Data Collection

3.1 In view of the absence of a reliable and comprehensive third-party Data-Base that could supply all relevant information (as needed for computing the said scores) it is imperative that the institutions that are desirous of participating in the ranking exercise, supply the data in the given format that is being made available on the NIRF portal, before the last date specified for this purpose. The deadlines will be separately announced on the NIRF portal.

3.2 It is required that the institutions upload the submitted data also on their own, publicly visible website in the interest of transparency. *The access to this data should be through a prominent link named NIRF in the homepage itself.* It is mandatory that institutions should host the data submitted for India Rankings 2018 on their website post the final submission and they should also provide an email address where they would receive comments and feedback. Institutions should pro-actively and objectively examine the comments and feedback received to effect corrections, if so warranted (within the time slot to be announced by NIRF on its website). All institutions have to mandatorily host data submitted for India Rankings 2018 for a period of three years.

3.3 Institutions who fail to post the data submitted to NIRF on their own websites (as indicated in 3.2), or those who do not have institution website, will not be ranked. **Thus, if the submitted data is not visible on the Institute's own website prominently (NIRF will do a limited checking on a random basis), its registration for ranking is likely to be cancelled after an initial Notice. In case this fact comes to the notice of the NIRF after the**

rankings have been announced, the Institution will be taken out of the ranking list, with an appropriate noting.

3.4 The data should remain on the institution's website in an archived form for the next 3 years to enable easy cross checking, where required. Institutions that fail to do this honestly or resort to unethical practices will be automatically debarred from participation in the future ranking surveys for a period of two years.

3.5 NIRF has been empowered to take up physical checks on the institution records and audited accounts where needed, to ensure that the principles of ethical behaviour are being adhered to. In case an institution is approached for carrying out any physical check, they are expected to co-operate. Non-cooperation may lead to debarring the institution from participation in the ranking exercise.

3.6 For some of the parameters (like Research, Patents etc.) the data will be populated from internationally available Data Bases. However, NIRF reserves the right not to use the data from any of these sources or include other sources, if so warranted. NIRF shall directly access data from these resources, or seek help from the resource publishers, as necessary.

3.7 NIRF also reserves the right to modify any of the metrics if it deems fit to do so in the interest of rationalisation necessitated by the exigencies or the nature of the data encountered. Any changes so made will be notified at the time of announcing the rankings.

4. Implementation Details

- 4.1 As in the previous year, the National Board of Accreditation (NBA) will continue to be the Ranking Agency on behalf of NIRF for 2018.
- 4.2 NIRF shall invite institutions interested to participate in the ranking exercise to register on the NIRF portal. The data should be submitted on an on-line facility created for this purpose.
- 4.3 NIRF, by itself or with the help of other suitably identified partner agencies will also undertake authentication of data, wherever felt necessary, and where feasible.
- 4.4 NIRF will extract the relevant information from this data and through software, compute the various metrics and rank institutions based on this data. This process is expected to be completed in about 3 months, and rankings published on the first Monday of April 2018.

5. Errors and Correction Policy

- 5.1 All efforts will be made to display the raw data on the NIRF website after due processing by NIRF for cross-checking by the institution. This is the data on which rankings would be finally computed. It will be the Institution's responsibility to ensure that the data published by NIRF accurately reflects the submissions by it. The institution will also be invited to check out the data supplied by or taken from third sources. If the Institution does not give any comments or feedback within a specified period on the displayed data, it will be assumed that this data is accurate. No petitions for corrections will be

accepted after the declared deadline, or after the rankings have been announced.

5.2 If it is found that an institution has deliberately manipulated the submitted data, causing erroneous rankings, NIRF will remove the institution from the ranking list and future rankings and publish a suitable note to this effect.

**Summary of Ranking Parameters and Weightages- 2018
(Overall)**

Sr. No.	Parameter	Marks	Weightage
1	Teaching, Learning & Resources	100	0.30
2	Research and Professional Practice	100	0.30
3	Graduation Outcomes	100	0.20
4	Outreach and Inclusivity	100	0.10
5	Perception	100	0.10

S.No.	Parameters	Marks
1.	Teaching, Learning & Resources (TLR) Ranking weight: 0.30	100
	A. Student Strength including Doctoral Students(SS): 20 marks B. Faculty-student ratio with emphasis on permanent faculty (FSR): 30 marks C. Combined metric for Faculty with PhD (or equivalent) and Experience (FQE): 20 marks D. Financial Resources and their Utilisation (FRU): 30 marks	
2.	Research and Professional Practice (RP) Ranking weight: 0.30	100
	A. Combined metric for Publications (PU): 35 marks B. Combined metric for Quality of Publications (QP): 35 marks C. IPR and Patents: Published and Granted (IPR): 15 marks D. Footprint of Projects and Professional Practice (FPPP): 15 marks	
3.	Graduation Outcomes (GO) Ranking weight: 0.20	100
	A. Metric for University Examinations(GUE): 60 marks B. Metric for Number of Ph.D. Students Graduated (GPHD): 40 marks	
4.	Outreach and Inclusivity (OI) Ranking weight: 0.10	100
	A. Percentage of Students from Other States/Countries (Region Diversity RD): 30 marks B. Percentage of Women (Women Diversity WD): 30 marks C. Economically and Socially Challenged Students (ESCS): 20 marks D. Facilities for Physically Challenged Students (PCS): 20 marks	
5.	Perception (PR) Ranking weight: 0.10	100
	A. Peer Perception: Academic Peers and Employers (PR): 100 marks	

1. Teaching, Learning & Resources (TLR): 100 marks

- **Ranking weight: 0.30**

- **Overall Assessment Metric:**

$$\text{TLR} = \text{SS (20)} + \text{FSR (30)} + \text{FQE (20)} + \text{FRU (30)}$$

- **Component metrics based on :**

A. Student Strength including Ph.D. Students: SS

B. Faculty-Student Ratio with emphasis on permanent faculty: FSR

**C. Combined metric for Faculty with PhD (or equivalent) and Experience:
FQE**

D. Financial Resources and Their Utilisation: FRU

A. Student Strength including Ph.D. students (SS): 20 Marks

- $SS = f(N_T, N_E) \times 15 + f(N_P) \times 5$
- The functions $f(N_T, N_E)$ and $f(N_P)$ are functions to be determined by NIRF.
- N_T : Total sanctioned approved intake in the institution considering all UG and PG programs of the institution.
- N_E : Total number of students enrolled in the institution considering all UG and PG programs of the institution.
- N_P = Total number of students enrolled for the doctoral program till previous academic year.
- **Primary Data: To be provided in a prescribed Format.**

B. Faculty-Student Ratio with emphasis on permanent faculty (FSR): 30 marks

- **FSR = 30 × [15 × (F/N)]**
- $N = N_T + N_p$
- F: Full time regular faculty in the institution in the previous year.
- Regular appointment means Faculty on Full time basis. *Faculty on contract basis/ad-hoc basis will be considered if the concerned faculty has taught in both the semesters of academic year 2016-2017.*
- Faculty members with Ph.D. and Masters degree will be considered and counted here. Faculty member with a Bachelor's degree will not be counted.
- Expected ratio is 1:15 to score maximum marks.
- **For F/N < 1: 50, FSR will be set to zero.**
- ***Primary Data: Faculty List to be provided in the Prescribed Format.***

C. Combined Metric for Faculty with PhD (or equivalent) and Experience (FQE): 20 marks

- $FQ = 10 \times (F_{RA}/95)$, $F_{RA} \leq 95\%$;
- $FQ = 10$, $F_{RA} > 95\%$.
- Here F_{RA} is the percentage of Faculty with Ph.D. (or equivalent qualification) with respect to the total no. of faculty required or actual faculty whichever is higher, in the previous year.

F1=Fraction with Experience up to 8 years;

F2= Fraction with Experience between 8+ to 15years;

F3=Fraction with Experience > 15 years.

$$\mathbf{FE = 3\min(3F1, 1) + 3 \min(3F2, 1) + 4 \min(3F3, 1)}$$

Rationale: Full marks for a ratio of 1:1:1

- $\mathbf{FQE = FQ + FE}$
- *Primary Data: Faculty List in the Prescribed Format.*

D: Financial Resources and their Utilisation (FRU): 30 Marks

- **FRU = 7.5×f(BC) + 22.5×f(BO)**
- *BC: Average Annual Capital Expenditure per student for the previous three years. (Excluding expenditure on construction of new buildings)*
- *BO: Operational (or Recurring) Expenditure per student for the previous three years. (Excluding maintenance of hostels and allied services)*

- *Primary Data: Figures in prescribed format for each.*

2. Research and Professional Practice (RP): 100 marks

- **Ranking weight: 0.30**
- **Overall Assessment Metric:**
$$RP = PU(35) + QP(35) + IPR(15) + FPPP(15)$$
- **The component metrics explained on following pages.**

- A. Combined Metric for Publications: PU**
- B. Combined Metric for Quality of Publications: QP**
- C. IPR and Patents: Published and Granted: IPR**
- D. Footprint of Projects, Professional Practice and Executive Development Programs: FPPP**

A. Combined metric for Publications (PU): 35 marks

- $PU = 35 \times f(P/F_{RQ})$
- *P is weighted number of publications as ascertained from suitable third party sources.*
- *F_{RQ} is the maximum of nominal number of faculty members as calculated on the basis of a required FSR of 1:15 or the available faculty in the institution.*
- **Sources: Third party sources.**

B. Combined metric for Quality of Publications (QP): 35 Marks

- $QP = 20 \times f(CC/P) + 15 \times f(TOP25P/P)$
- Here CC is Total Citation Count over previous three years.
- P is as computed for PU.
- TOP25P: Number of citations in top 25 percentile averaged over the previous three years.
- *Primary Data: Third Party Sources.*

C. IPR and Patents: Patents Published & Granted (IPR): 15 marks

$$\text{IPR} = \text{IPG} + \text{IPP}$$

$$\text{IPG} = 10 \times f(\text{PG})$$

- PG is the number of patents granted over the previous three years.

$$\text{IPP} = 5 \times f(\text{PP})$$

- PP: No. of patents published over the previous three years.
- **Primary Data: Third Party Sources**

D. Footprint of Projects, Professional Practice and Executive Development Programs

(FPPP): 15 marks

- **$FPPP = FPR + FPC + EDP$**
- **$FPR = 5 \times f(RF)$**
- RF is the average annual research funding earnings (amount received in rupees) at institute level in previous three years.
- **$FPC = 5 \times f(CF)$**
- CF is the average annual consultancy amount (amount actually received in rupees) at institute level in previous three years.
- **$EDP = 5 \times f(EP)$**
- EP = Average annual earnings from Full Time Executive Development Programs of a minimum duration of one year in previous three years.
- ***Primary Data: To be provided by the institution in prescribed format.***

3. Graduation Outcome (GO):100 marks

- **Ranking weight: 0.20**
- **Overall Assessment Metric:**
- **$GO = GUE(60) + GPHD(40)$**
- **The component metrics are explained on the following pages:**

A. Metric for University Examinations: GUE

B. Metric for Number of Ph.D. Students Graduated: GPHD

A. Metric for University Examinations (GUE): 60 Marks

- **GUE = $60 \times \min [(Ng/80), 1]$**
- Ng is the percentage of Students (as a fraction of the approved intake), averaged over the previous three years, passing the respective university examinations in stipulated time for the program in which enrolled.
- *Primary Data: To be provided in a prescribed format*

B. Metric for Number of Ph.D Students Graduated (GPHD): 40 Marks

- **GPHD = 40 × f(Nphd)**
- Nphd = Average number of Ph.D students graduated (awarded Ph.D) over the previous three years.
- *Primary Data: Number of graduating Ph.D. Students as reflected in the approved Annual Report/Convocation Report to be provided in the prescribed format.*

4. Outreach and Inclusivity (OI): 100 marks

- **Ranking weight: 0.10**
- **Overall Assessment Metric: $OI = RD(30) + WD(30) + ESCS(20) + PCS(20)$**
- **The component metrics are explained on following pages:**
 - A. Percentage of Students from Other States/ Countries (Region Diversity): RD**
 - B. Percentage of Women (Women Diversity): WD**
 - C. Economically and Socially Challenged Students: ESCS**
 - D. Facilities for Physically Challenged Students: PCS**

A. Percentage of Students from Other States/ Countries (Region Diversity RD): 30 marks

RD = 25 × fraction of total students enrolled from other states + 5 × fraction of students enrolled from other countries

Primary Data: To be provided in the prescribed format.

B. Percentage of Women (Women Diversity WD): 30 marks

- $WD = 15 \times (N_{WS}/50) + 15 \times (N_{WF}/20)$
- N_{WS} are the percentage of Women students.
- N_{WF} are the percentage of Women Faculty including women members in senior administrative positions, such as Heads of Departments, Deans or Institute Heads.
- Expectation: 50% women students and 20% women faculty.
- *Primary Data: To be provided in the prescribed format.*

C. Economically and Socially Challenged Students (ESCS) : 20 marks

- **ESCS = 20 × f(N_{esc})**
- N_{esc} is the percentage of UG or *PG students being provided financial aid by the institution, government and private bodies to pursue their degree program.
- ***Primary Data: To be provided by the institution in a prescribed format.***

****Excluding scholarships provided by the central/state government under various schemes.***

D. Facilities for Physically Challenged Students (PCS): 20 marks

- **PCS = 20 marks, if the Institute provides full facilities for physically challenged students, as outlined.**

Else, in proportion to facilities.

- Basis: Verifiable Responses to Questions.
- *Primary Data: To be provided in a prescribed format.*

5. Perception (PR) – 100 marks

- **Ranking weight: 0.1**
- **Overall Assessment Metric: PR = 100**
- **Component metrics are explained in the following pages:**

A. Peer Perception: Employers & Academic Peer (PR): 100 marks

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- This is to be done through a survey conducted over a large category of Employers, Professionals from Reputed Organizations and a large category of academics to ascertain their preference for graduates of different institutions.
- Comprehensive list will be prepared taking into account various sectors, regions, etc.
- Lists to be updated periodically.