INDIA RANKINGS 2023

NATIONAL INSTITUTIONAL RANKING FRAMEWORK

Methodology for Ranking of Academic Institutions in India

(RANKING METRICS FOR AGRICULTURE & ALLIED SECTORS)

Ministry of Education

Summary of Ranking Parameters and Weightages- 2023
### (Agriculture & Allied Sectors)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Parameter</th>
<th>Marks</th>
<th>Weightage</th>
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<tbody>
<tr>
<td>1</td>
<td>Teaching, Learning &amp; Resources</td>
<td>100</td>
<td>0.30</td>
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<td>2</td>
<td>Research and Professional Practice</td>
<td>100</td>
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<td>3</td>
<td>Graduation Outcomes</td>
<td>100</td>
<td>0.20</td>
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<td>4</td>
<td>Outreach and Inclusivity</td>
<td>100</td>
<td>0.10</td>
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<td>5</td>
<td>Perception</td>
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<td>1.</td>
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<td></td>
<td><strong>Ranking weight: 0.30</strong></td>
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<td></td>
<td>A. Student Strength including Doctoral Students (SS): 20 marks</td>
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<td>B. Faculty-student ratio with emphasis on permanent faculty (FSR): 30 marks</td>
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<td>C. Combined metric for Faculty with PhD (or equivalent) and Experience (FQE): 20 marks</td>
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<td>D. Financial Resources and their Utilisation (FRU): 30 marks</td>
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<td>A. Combined metric for Publications (PU): 35 marks</td>
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<td>B. Combined metric for Quality of Publications (QP): 40 marks</td>
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<td>C. IPR and Patents: Published and Granted (IPR): 15 marks</td>
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<td>D. Footprint of Projects and Professional Practice (FPPP): 10 marks</td>
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<td><strong>Graduation Outcomes (GO)</strong></td>
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<td>A. Percentage of Students from other States/Countries (Region Diversity RD): 30 marks</td>
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<td>A. Peer Perception: Employers &amp; Academic Peer (PR): 100 marks</td>
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</table>
1. Teaching, Learning & Resources (TLR): 100 marks

- Ranking weight: 0.30
- Overall Assessment Metric:
  \[ TLR = SS \times 0.20 + FSR \times 0.30 + FQE \times 0.20 + FRU \times 0.30 \]
- 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

- $FSR = 30 \times [15 \times (F/N)]$
- $N = N_T + N_p$
- $F$: 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 2021-22.*
- Faculty members with Ph.D. and Master’s 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

- \( F_{Q} = 10 \times (F_{RA}/95), \ F_{RA} < 95\%; \)
- \( F_{Q} = 10, \ F_{RA} \geq 95\%. \)

- 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.

\( F_{1} = \) Fraction with Experience up to 8 years;
\( F_{2} = \) Fraction with Experience between 8+ to 15 years;
\( F_{3} = \) Fraction with Experience > 15 years.

- \( F_{E} = 3 \min(3F_{1}, 1) + 3 \min(3F_{2}, 1) + 4 \min(3F_{3}, 1) \)

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

- \( F_{QE} = F_{Q} + F_{E} \)

- **Primary Data: Faculty List in the Prescribed Format.**
D: Financial Resources and their Utilisation (FRU): 20 Marks

- FRU = 7.5×f(BC) + 22.5×f(BO)

- BC: Average Annual Capital Expenditure per student for previous three years pertaining to agriculture & allied sectors discipline only. *(Excluding expenditure on construction of new buildings)*

- BO: Average Annual Operational (or Recurring) Expenditure per student for previous three years pertaining to agriculture & allied sectors discipline only. *(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:
  \[ \text{RP} = \text{PU (35)} + \text{QP (40)} + \text{IPR (15)} + \text{FPPP (10)} \]
- 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: Patents Published and Granted: IPR
  D. Footprint of Projects and Professional Practice: 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): 40 Marks

- \[ QP = 20 \times f(CC/F_{RQ}) + 20 \times f(TOP25P/P) \]

- 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.
- \( F_{RQ} \) 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.
- **Primary Data: Third Party Sources.**
C. IPR and Patents: Patents Published and Granted (IPR): 15 marks

- IPR = IPG + IPP

  IPG = 10 × f (PG)

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

  IPP = 5 × f (PP)

- PP: No. of patents published over the previous three years.

- Primary Data: Third Party Sources.
D. Footprint of Projects and Professional Practice (FPPP): 10 marks

- $\text{FPPP} = \text{FPR} + \text{FPC}$
- $\text{FPR} = 7.5 \times f(\text{RF})$
  
  - RF is average annual research funding earnings (amount actually received in rupees) per faculty at institute level in previous three years.
- $\text{FPC} = 2.5 \times f(\text{CF})$
  
  - CF is average annual consultancy amount (amount actually received in rupees) per faculty at institute level in previous three years.
3. Graduation Outcome (GO): 100 marks

- Ranking weight: 0.20

- Overall Assessment Metric:

  - GO = GPH (40) + GUE (15) + GMS (25) + GPHD (20)

- The component metrics are explained on the following pages:
  
  A. Combined metric for Placement and Higher Studies: GPH
  B. Metric for University Examinations: GUE
  C. Median Salary: GMS
  D. Metric for Number of Ph.D. Students Graduated: GPHD
A. Combined Metric for Placement and Higher Studies (GPH): 40 marks

- \[ \text{GPH} = 40 \times \left( \frac{N_p}{100} + \frac{N_{hs}}{100} \right) \]

- \( N_p = \) Percentage of graduating students (in UG/ PG programs) placed in the previous three years.
- \( N_{hs} = \) Percentage of graduating students (in UG/ PG programs) who have been selected for higher studies in the previous three years.

- *Primary Data: To be provided in prescribed format.*
B. Metric for University Examinations (GUE): 15 Marks

- GUE = 15 × min \([(N_g/80), 1]\)

- \(N_g\) is the percentage of Students (as a fraction of the approved intake), averaged over previous three years, passing the respective university examinations in stipulated time for the program in which enrolled.

- *Primary Data: To be provided in the prescribed format.*
C. Median Salary (GMS): 25 Marks

- GMS = 25 \times f (MS)

- MS = Median salary of graduates (in UG/PG program) in the previous three years from an institution.

- *Primary Data: To be provided in the prescribed format.*
D. Metric for Number of Ph.D. Students Graduated (GPHD): 20 Marks

- $GPHD = 20 \times f(N_{phd})$

- $N_{phd} =$ 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

- \( WD = 15 \times \left( \frac{N_{WS}}{50} \right) + 15 \times \left( \frac{N_{WF}}{20} \right) \)

- \( N_{WS} \) are the percentage of Women students.

- \( N_{WF} \) are the percentage of Women Faculty including the 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

- $\text{ESCS} = 20 \times f(N_{\text{esc}})$

- $N_{\text{esc}}$ is the percentage of UG students being provided full tuition fee reimbursement by the institution to pursue their degree programs.

- Primary Data: To be provided by the institution in the prescribed format.
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 Peers (PR): 100 marks
A. Peer Perception: Employers & Academic Peer (PR): 100 marks

- 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 considering various sectors, regions, etc.
- Lists to be updated periodically.