NATIONAL INSTITUTIONAL RANKING FRAMEWORK

Methodology for Ranking of Academic Institutions in India

(RANKING METRICS FOR ARCHITECTURE)

Ministry of Human Resource Development
Summary of Ranking Parameters and Weightages - 2021

(Architecture)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Parameter</th>
<th>Marks</th>
<th>Weightage</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Teaching, Learning &amp; Resources</td>
<td>100</td>
<td>0.40</td>
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<td>2</td>
<td>Research and Professional Practice</td>
<td>100</td>
<td>0.20</td>
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<td>3</td>
<td>Graduation Outcomes</td>
<td>100</td>
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<td>4</td>
<td>Outreach and Inclusivity</td>
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<td>Perception</td>
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<td>1.</td>
<td><strong>Teaching, Learning &amp; Resources (TLR)</strong></td>
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<td><strong>Ranking weight: 0.40</strong></td>
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<td></td>
<td>1. A. Student Strength (SS): 20 marks</td>
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<td>2. B. Faculty-student ratio with emphasis on permanent faculty (FSR): 30 marks</td>
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<td>3. C. Combined metric for Faculty with PhD (or equivalent) and Experience (FQE): 20 marks</td>
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<td>4. D. Financial Resources and their Utilisation (FRU): 30 marks</td>
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<td>2.</td>
<td><strong>Research and Professional Practice (RP)</strong></td>
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<td>1. A. Combined metric for Publications (PU): 60 marks</td>
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<td>2. B. Combined metric for Quality of Publications (QP): 20 marks</td>
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<td>1. A. Combined metric for Placement and Higher Studies (GPH): 40 marks</td>
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<td>2. B. Metric for University Examinations(GUE): 30 marks</td>
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</table>
1. Teaching, Learning & Resources (TLR): 100 marks

- Ranking weight: 0.40
- Overall Assessment Metric:

  \[ TLR = SS \times 20 + FSR \times 30 + FQE \times 20 + FRU \times 30 \]

- Component metrics based on:
  A. Student Strength: 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 (SS): 20 Marks

- \[ SS = f(N_T, N_E) \times 20 \]

- The functions \( f(N_T, N_E) \) is function 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.

- **Primary Data: To be provided in a prescribed Format.**
B. Faculty-Student Ratio with emphasis on permanent faculty (FSR): 30 marks

- \[ \text{FSR} = 30 \times [15 \times (F/N)] \]

- \[ N = N_f \]

- 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 2019-20.

- Faculty member with Ph.D., M.Arch/M.Plan and B.Arch with three years of experience will be considered and counted here.

- 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

- \( FQ = 10 \times \left( \frac{F_{RA}}{95} \right), \quad F_{RA} < 95\%; \)
- \( FQ = 10, \quad F_{RA} \geq 95\%. \)

- 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.

F1=Fraction with Experience up to 8 years;

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

F3=Fraction with Experience > 15 years.

- \( FE = 3\min(3F_1, 1) + 3 \min(3F_2, 1) + 4 \min(3F_3, 1) \)

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

- \( FQE = FQ + FE \)

- Primary Data: Faculty List in the Prescribed Format.
D: Financial Resources and their Utilization (FRU): 30 Marks

- \[ \text{FRU} = 7.5 \times f(BC) + 22.5 \times f(BO) \]

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

- BO: Average Annual Operational (or Recurring) Expenditure per student for previous three years pertaining to architecture 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: 0.20

• Overall Assessment Metric:

\[ \text{RP} = \text{PU (60)} + \text{QP (20)} + \text{FPPP (20)} \]

• The component metrics explained on following pages.
  
  A. Combined Metric for Publications: PU
  B. Combined Metric for Quality of Publications: QP
  C. Footprint of Projects and Professional Practice: FPPP
A. Combined metric for Publications (PU): 60 marks

- $PU = 60 \times f(P/F_{RQ})$
- $P$ 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): 20 Marks

- \( QP = 20 \times f(CC/P) \)
- Here \( CC \) is Total Citation Count over previous three years.
- \( P \) is as computed for PU.
- *Primary Data: Third Party Sources.*
C. Footprint of Projects and Professional Practice (FPPP): 20 marks

• **FPPP = FPR + FPC**

• **FPR = \(10 \times f(RF)\)**

  • RF is average annual research funding earnings (amount actually received in rupees) per faculty at institute level in the previous three years.

• **FPC = \(10 \times f(CF)\)**

  • CF is average annual consultancy amount (amount actually received in rupees) per faculty at institute level in the 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 = GPH(40) + GUE(30) + GMS(30)

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

- Primary Data: To be provided in a prescribed format
B. Metric for University Examinations (GUE): 30 Marks

- GUE = 30 × min \([N_g/80], 1\]

- \(N_g\) 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.*
C. Median Salary(GMS): 30 Marks

- GMS = $30 \times f(MS)$

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

- *Primary Data: To be provided in a 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

- \( \text{RD} = 25 \times \text{fraction of total students enrolled from other states} + 5 \times \text{fraction of students enrolled from other countries} \)

- *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

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

- $N_{esc}$ 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 a 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: 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 taking into account various sectors, regions, etc.
- Lists to be updated periodically.