

**Intellectual Property**  
**Prof. Feroz Ali**  
**Department of Humanities and Social Sciences**  
**Indian Institute of Technology, Madras**

**Lecture – 29**  
**Indian Universities & Patents**

(Refer Slide Time: 00:13)

## Indian Universities & Patents



Let us look at how Indian universities have been using Patents.

(Refer Slide Time: 00:17)

## NIRF

- National Institutional Ranking Framework
- This framework outlines a methodology to rank institutions across the country.
  - Teaching, Learning and Resources
  - Research and Professional Practices
  - Graduation Outcomes
  - Outreach and Inclusivity
  - Perception



Now, the NIRF, the National Institute Ranking Framework has come up with the framework which outlines a methodology for ranking institutions. This is done by the Government of India. Teaching, learning and the resources employed, research and professional practices, graduation outcomes, outreach and inclusivity, perception; there are different yardsticks that the NIRF uses in coming up with its ranking.

(Refer Slide Time: 00:45)

## NIRF: Overall Ranking

Institute ID	Name	City	State	Score	Rank
IR-1-O-Q-U-0220	Indian Institute of Science <a href="#">More Details</a>	Bengaluru	Karnataka	82.16	1
IR-2-O-OE-U-0456	Indian Institute of Technology Madras <a href="#">More Details</a>	Chennai	Tamil Nadu	81.39	2
IR-3-O-OEM-U-0306	Indian Institute of Technology Bombay <a href="#">More Details</a>	Mumbai	Maharashtra	79.20	3
IR-3-O-OEM-I-1074	Indian Institute of Technology Delhi <a href="#">More Details</a>	New Delhi	Delhi	73.97	4
IR-5-O-OEMAL-U-0573	Indian Institute of Technology Kharagpur <a href="#">More Details</a>	Kharagpur	West Bengal	71.39	5
IR-1-O-Q-U-0109	Jawaharlal Nehru University <a href="#">More Details</a>	New Delhi	Delhi	67.57	6
IR-3-O-OEM-I-1075	Indian Institute of Technology Kanpur <a href="#">More Details</a>	Kanpur	Uttar Pradesh	65.39	7
IR-4-O-OEMA-U-0560	Indian Institute of Technology Roorkee <a href="#">More Details</a>	Roorkee	Uttarakhand	64.93	8
IR-3-O-OMD-U-0500	Banaras Hindu University <a href="#">More Details</a>	Varanasi	Uttar Pradesh	63.52	9
IR-4-O-OEMA-U-0439	Anna University <a href="#">More Details</a>	Chennai	Tamil Nadu	62.82	10



Now, the overall ranking has been there are specific ranking with regard to with regard to engineering institutes, but the overall ranking has placed; this is the 2018 ranking. The Indian Institute of Science at the top followed by the Indian Institute of Technology, Madras, Bombay, Delhi and Kharagpur, all the IITs within the 5.

And you can see there is a score and the score corresponds to the rank. Now, this is a screenshot from the website and if you can click on the PDF link at the website, it will show the details of how each university or each institute fair in the ranking.

(Refer Slide Time: 01:31)

## NIRF: RPC Ranking

- Research and Professional Practices
  - This includes combined metric for publications, their quality, patents, and Projects

Institute ID	Name	City	State	RPC Score	RPC Rank	Score	Rank
IR-1-O-U-0220	Indian Institute of Science	Bengaluru	Karnataka	91.08	1	82.16	1
IR-3-O-OEMA-U-0306	Indian Institute of Technology Bombay	Mumbai	Maharashtra	85.59	2	79.20	3
IR-2-O-OE-U-0456	Indian Institute of Technology Madras	Chennai	Tamil Nadu	81.42	3	81.39	2
IR-3-O-OEMA-U-1074	Indian Institute of Technology Delhi	New Delhi	Delhi	78.67	4	73.97	4
IR-5-O-OEMA-U-0573	Indian Institute of Technology Kharagpur	Kharagpur	West Bengal	74.57	5	71.39	5
IR-3-O-OEMA-U-1075	Indian Institute of Technology Kanpur	Kanpur	Uttar Pradesh	68.63	6	65.39	7
IR-4-O-OEMA-U-0560	Indian Institute of Technology Roorkee	Roorkee	Uttarakhand	61.59	7	64.93	8
IR-4-O-OEMA-U-0439	Anna University	Chennai	Tamil Nadu	60.76	8	62.82	10
IR-1-O-U-0120	University of Delhi	Delhi	Delhi	58.16	9	58.69	14
IR-2-O-OE-U-0575	Jadavpur University	Kolkata	West Bengal	57.07	10	59.68	13



So, Research and Professional Practices is one of the criteria for which universities get points and which is considered into ranking. This includes the combined metric for publications, their quality, patents and projects. So, you can find that you will see that patents do play a role and that is very clear when you see into the data sheets.

(Refer Slide Time: 01:55)

## Patents and Ranking (2018)

- IIT Madras, Rank 1

Patent Details (For last 3 calendar years, i.e. 2014, 2015, 2016)

No. of Patents Granted	No. of Patents Published	Earnings from Patents (in Rs.)
54	395	85531734.00

- IIT Kanpur, Rank 10

Patent Details (For last 3 calendar years, i.e. 2014, 2015, 2016)

No. of Patents Granted	No. of Patents Published	Earnings from Patents (in Rs.)
29	203	8144839.00



For instance, the link between patents and ranking can be found in these data sheets. For instance, IIT Madras which has been ranked 1, the data sheet shows that the number of patents granted is 54 in the last 3 calendar years and the number of published patents is

395 and the earnings through patent is also mentioned that in excess of 6 crores. IIT Kanpur, which is ranked 10, has 29th granted patents, 203 published patents and their revenues in 81 lakhs.

(Refer Slide Time: 02:33)

## Patents and Ranking (2018)

### • NIT Rourkela, Rank 15

Patent Details (For last 3 calendar years, i.e. 2014, 2015, 2016)

No. of Patents Granted	No. of Patents Published	Earnings from Patents (in Rs.)
0	3	0.00

### • Thapar Institute of Engineering & Tech., Rank 20

Patent Details (For last 3 calendar years, i.e. 2014, 2015, 2016)

No. of Patents Granted	No. of Patents Published	Earnings from Patents (in Rs.)
1	11	27900000.00



NIT Rourkela, which was Rank 15, does not have any granted patents, but it has got 3 patents published and Rank 20th which is Thapar institute has 1 patent granted, 11 pending and it has generated some amount using their patents in close to in excess of 2 crores.

Now, this tells us that there is some relationship between patents and ranking under the NIRF system.

(Refer Slide Time: 03:05)

## NAAC

- National Assessment and Accreditation Council
  - Assesses and accredits higher education Institutions in India
- Quality Indicator framework
  - Research, Innovation, and Extension
    - Number of patents obtained



The National Assessment and Accreditation Council also uses patents when it comes to assessing and accrediting higher education institutions in India. Now, it has developed the quality indicator framework which looks at research innovation and an extension and one of the factors they look at is the number of patents obtained and whether there is an innovation ecosystem.

(Refer Slide Time: 03:31)

## UGC & AICTE

- UGC requests universities and affiliated colleges to provide IPR as elective
- The AICTE approval process handbook mentions the creation of IPR Cell



The UGC and the AICTE regulatory bodies have also mandated some kind of activity around patents for instance. UGC now requests universities and affiliated colleges to provide IPR as elective course.

And the AICTE, approval process handbook mentions the creation of IPR cell. So, the IPR cell is required and AICTE has also come up with a guidelines for IPR for technical institutes.