



Confederation of Indian Industry

AICTE-CII Survey of Industry-Linked Technical Institutes 2013

Background and Methodology

This study was initiated by CII jointly with AICTE with the objective of mapping industry linkages of AICTE-approved technical institutions in the country. The study covered the following streams – Engineering, Management, Pharmacy and Architecture. In Engineering there were nine categories under which institutes could file their applications-- Chemical, Civil, Computer & IT (taken together), Electrical, Electronics & Communication, Mechanical Engineering, Mining & Metallurgy, Biotechnology / Biochemical / Biomedical and Agriculture. Any category other than this was covered under “All Others in Engineering”. In this category, mainly Textile Engineering institutes / branches filed their applications. Some other specialisations in which institutes applied in the survey under “All Others” category were Mechatronics, Food Technology, Instrumentation and Tool and Dye Engineering.

The evaluation was done across six parameters namely, faculty, placements, curriculum, services, infrastructure and governance; each consisting of specific sub-factors. A detailed report on the entire process was prepared which analysed the depth of institutes’ engagement with industry and also looked at how far they had been able to provide demand-based, industry-responsive education. The purpose of the survey was to see how well these institutes are equipped to churn out talent to meet market requirements; and how industry with its regular connect with these institutes is able to advise on what is happening in the market.

The institutes were evaluated across six dimensions and each of these six dimensions was allotted individual weightages as shown in the table below:

S. No	Dimensions	Weightage and Scores
1.	Faculty	20% (Maximum score 28)
2.	Placements	20% (Maximum score 18)
3.	Curriculum	20% (Maximum score 16)
4.	Services	20% (Maximum score 16)
5.	Infrastructure	10% (Maximum score 10)
6.	Governance	10% (Maximum score 7)
Total Weightage		100%
Total Score		95

Structured questions and evaluation parameters were designed across each of the dimensions. The institutes were asked to answer the following questions against each parameter.

No.	Dimensions	Evaluation parameters
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No.	Dimensions	Evaluation parameters
1.	Faculty	<ul style="list-style-type: none"> • Number of faculty members who provided training / lectures to industry during 2012-13 as a percentage of total faculty • Number of faculty members on the boards of industry / advisory, academic councils / statutory university bodies as a percentage of total faculty • Number of man-days of refresher courses provided by faculty to industry executives during 2012-13 • Number of man-days of programmes attended / trainings received by faculty from industry during 2012-13 • Number of faculty patents, design and other Intellectual Property Rights (IPRs) except copyrights of books in 2012-13 (Granted) • Number of faculty patents, design and other Intellectual Property Rights (IPRs) except copyrights of books in 2012-13 (Filed)
2.	Placements	<ul style="list-style-type: none"> • Number of companies with stream/ specialization specific job profile coming to campus • Number of students offered jobs from campus during 2012-13 • Number of students offered jobs in specialization/ stream specific companies in 2012-13 •
3.	Curriculum	<ul style="list-style-type: none"> • Number of companies providing training / internship • Number of industry visits for students • Percentage of visiting faculty from industry as compared to core faculty • Number of industry guest lectures / seminars conducted
4.	Services	<ul style="list-style-type: none"> • Number of contractual research projects assigned to institute during 2012-13 • Number of technology transfers to industry during 2012-13 • Number of consultancy / advisory services provided to industry during 2012-13
5.	Infrastructure	<ul style="list-style-type: none"> • Number of centers/ units/ cells financially supported by industry • Percentage of financial contribution by industry in the unit
6.	Governance	<ul style="list-style-type: none"> • Number of Industry members on Board of Governors / Advisory Councils • Percentage of Industry members attending Board of Governors / Advisory Council

The absolute scores of institutes for every parameter were divided by the maximum score for that parameter and multiplied by the weightage of that parameter to obtain the weighted score for every parameter. The sum of weighted scores across the six parameters was the objective score of each institute. Following is the manner in which scores were given:

1 Industry in curriculum (20%)						
No. of companies providing Industrial training/ internship						
1.1	0	1 to 5	6 to 10	11 to 15	> 15	Max score-16
	0	1	2	3	4	
No. of Industry visits for students						
1.2	0	1 to 3	4 to 5	6 to 10	> 10	
	0	1	2	3	4	
Percentage of visiting faculty from industry as compared to core faculty						
1.3	0	1-10%	11-20%	21-30%	>30%	
	0	1	2	3	4	
No. of Industry guest lectures / seminars conducted						
1.4	0	1 to 5	6 to 10	11 to 15	> 15	
	0	1	2	3	4	
2 Industry-faculty interface (20%)						
% of faculty members who provided training / lectures to industry during 2012-13						
2.1	0	1-25%	25-50%	51-75%	>75%	As a % of total faculty members
	0	1	2	3	4	
% of faculty members on the boards of industry / advisory, academic councils / statutory university bodies						
2.2	0	1-10%	11-20%	21-30%	>30%	As a % of total faculty members
	0	1	2	3	4	
No. of man-days of refresher courses provided by faculty to industry executives during 2012-13						
2.3	0	1 to 10	11 to 20	21 to 30	>30	Add the number of days for each faculty member
	0	1	2	3	4	
No. of man-days of programmes attended/ trainings received by faculty from industry during 2012-13						
2.4	0	1 to 10	11 to 20	21 to 30	>30	Add the number of days for each faculty member
	0	1	2	3	4	
No. of faculty patents, design and other IPRs except copyrights of books in 2012-13 GRANTED						
2.5	0	1 to 2	3 to 4	5 to 6	>6	Max score-28
	0	2	4	6	8	
No. of faculty patents, design and other IPRs except copyrights of books in 2012-13 FILED						
2.6	0	1 to 2	3 to 4	5 to 6	>6	
	0	1	2	3	4	
3 Industry in infrastructure (10%)						
Number of centers/ units/ cells financially supported by industry						
3.1	0	1 to 2	3 to 4	>4		Max score-10
	0	2	4	6		
% of financial contribution by industry in the unit						
3.2	<10%	10-20%	21-50%	51-75%	>76%	Financial contribution as a % of expenditure of the cell
	0	1	2	3	4	
4 Industry research/ consultation (20%)						
Number of Contractual Research projects assigned to institute during 2012-13						
4.1	0	1 to 10	11 to 20	21 to 50	>50	Max score-16
	0	Less than Rs 2 lakh	Rs 2 lakh-Rs 5 lakh	Rs 5 lakh-Rs 10 lakh	>Rs 10 lakh	
	0	1	2	3	4	
Number of Technology Transfers to industry during 2012-13						
4.2	0	1 to 2	3 to 4	5 to 6	>6	
	0	2	4	6	8	
No. of Consultancy / Advisory Services provided to industry during 2012-13						
4.3	0	1 to 10	11 to 20	21 to 50	>50	
	0	Less than Rs 2 lakh	Rs 2 lakh-Rs 5 lakh	Rs 5 lakh-Rs 10 lakh	>Rs 10 lakh	
	0	1	2	3	4	
5 Placements (20%)						Max score-18
Number of companies with stream/ specialization specific job profile coming to campus						As a percentage of the total number of companies open for that stream
5.1	<40%	40-60%	61-80%	81-100%		
	1	3	5	7		
Number of students offered jobs from campus during 2012-13						As a percentage of the total number of eligible final year students in that stream
5.2	<40%	40-60%	61-80%	81-100%		
	1	2	3	4		
Number of students offered jobs in specialization/ stream specific companies in 2012-13						As a percentage of the total number of eligible final year students (match sector and discipline)
5.3	1-10%	11-25%	26-50%	>50%		
	1	3	5	7		
6 Industry in governance (10%)						
Number of industry members on BoG/ advisory councils						Max score-7
6.1	0	1 to 3	4 to 6	>6		
	0	1	2 no.	3		
% of Industry members attending BoG meetings/ advisory councils						Attended/total x 100. Add % for all meetings and divide by 4 = x (dividing by 4 takes care of the no. of BoG meeting rating. Assuming 4 BoG meeting PA
6.2	x = 0	x = 1- 25	x = 26 - 50	x = 51 - 75	x > 75	
	0	1	2	3	4	

It is important to note that, while four of the parameters were given a weightage of 20%, the maximum score that an institute could achieve for each parameter differed. The survey was structured so that the maximum score available for a strong performance in the faculty parameter was 28, for example, whereas the maximum score for placements was 18, and 16 for both curriculum and research and consultation. This reflects the fact that a strong faculty is the key to developing strong linkages with industry. Performance in the faculty parameter is therefore of prime importance for achieving a high final score in this survey. Institutes' priority should be to strengthen and empower their faculty, rather than to focus first on their infrastructure or governance.

Validation Process: Based on the objective scores, a shortlist of 147 institutes was created and the institutes were asked to send all correspondences, letters, certificates, brochures, books, pamphlets or any other document which could validate their entries on the portal. Papers of all the institutes were scrutinized and a high-level Jury met to evaluate the process.

After validating in detail the procedure followed for scrutiny of documents and after analyzing the objective scores for every stream, the Jury shortlisted the top quartile in every stream for the last leg of evaluation—spot visits. These were undertaken to 37 institutes across various streams.