All India Council for Technical Education
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Confederation of Indian Industry

AICTE-CII Survey of Industry-Linked Technical Institutes 2013

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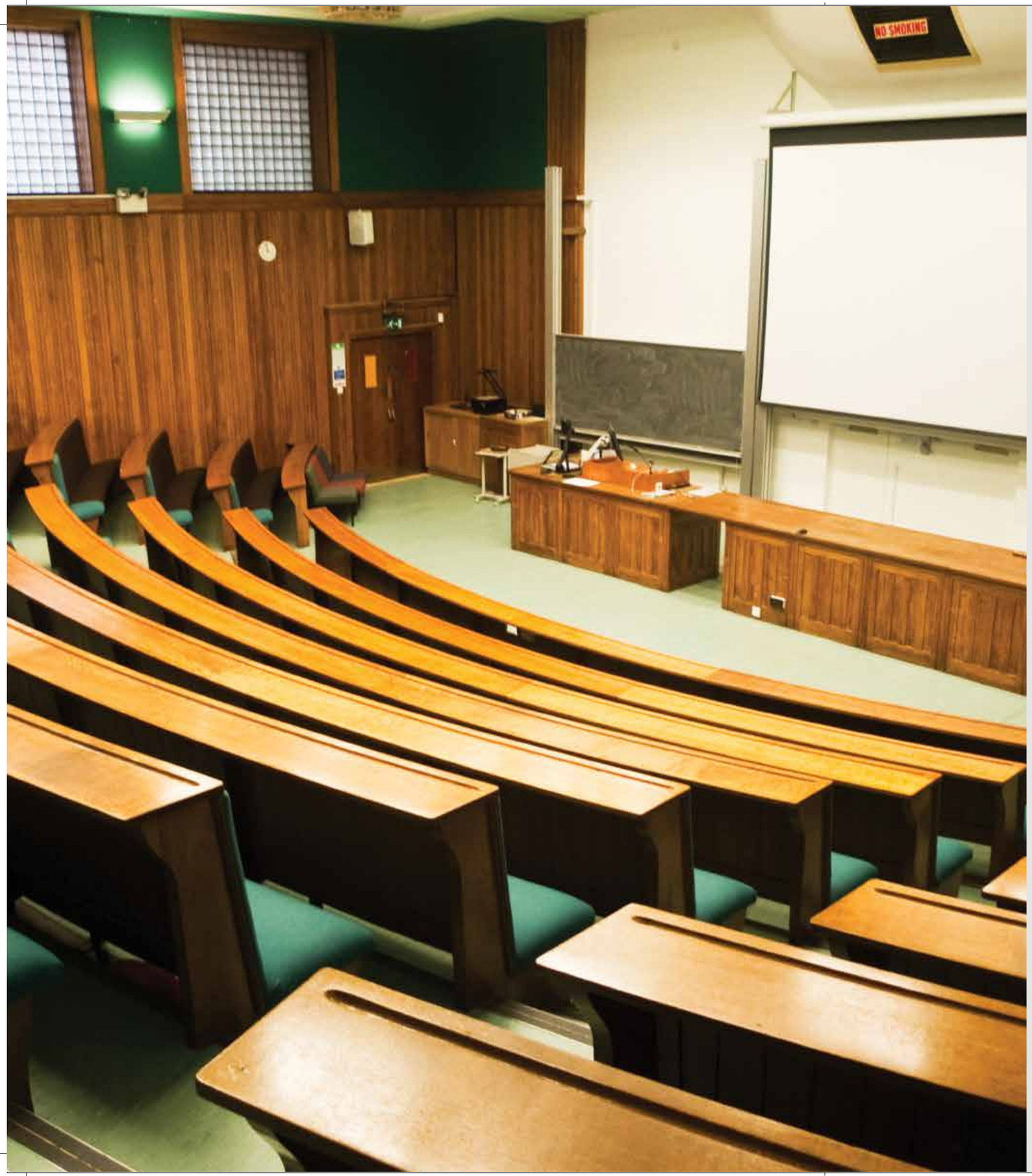

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FOREWORD

FOREWORD

Industry-institute collaboration is today a common focus in academia. The need for this linkage is being recognized and felt by almost everybody inside institutes. This realisation is the first step towards bringing about a change. The challenge is for industry to meet the expectations of academia. Higher education has grown at an exponential pace in the past few years, with close to 14 lakh students passing out of engineering colleges alone every year, leading to large faculty shortages and a major quality concern. Industry has a direct interest in improving the quality of engineering graduates and is keen to help. The question is how.

When industry and institutes work towards a common goal with common deadlines and targets, great things can happen. This survey, in which we are happy to have the All India Council for Technical Education as our partners, is special in helping us move in this direction.

At CII it has been our endeavour to coax both industry and academia to take little steps closer towards each other. I hope this survey will shed greater light every year on how far we have been able to progress in that. I thank ACCA for doing this wonderful analysis for us and helping us in bringing out this report.

Naushad Forbes
Chairman, CII National Committee on Higher Education & Director,
Forbes Marshall Limited

The regulator's task in a democratic set-up is always fraught with dichotomies and frictions between various players. At AICTE we have been striving for the past several years to bring about a transparency in the system to the extent feasible and possible. Though that comes with its own set of issues, we have been successful in braving challenges of all kinds in the recent past.

As a regulator we do not see our task as that of only monitoring or regulating the opening, closing or expansion of institutes. Improvement in quality is of equal importance and at AICTE we have taken several steps towards that in the past few years. The best way of judging excellence in technical education is by looking closely at how well are our institutes aligned with the requirements of industry and how much do they interact with it to take inputs on faculty enhancement, curriculum, governance, infrastructure and other services and to what extent does this engagement with industry help in placements.

I am happy that along with the Confederation of Indian Industry (CII), we undertook the exercise of mapping the actual linkages of industry and institutes in 2012 and in just one year this survey has set a new benchmark in the country. For the first time, this survey provides us hard facts and figures to analyse how far we have reached in our goal of industry-academia collaboration and clearly shows the way forward. As was the case last year, this year also the survey shows a significant number of institutes in the medium-linkages-with-industry category. This in itself is a positive sign and I am hopeful that as the years progress and this survey and its significance grows, more and more institutes will start moving towards the high-linkages-with-industry category.

I thank CII for partnering with us in this significant initiative and hope to take this to greater heights in years to come.

SS Mantha
Chairman, All India Council for Technical Education

1 BACKGROUND

BACKGROUND

This report focuses on the linkages that exist between industry and academia, building on the success of the 2012 survey initiated by the Confederation of Indian Industry (CII) and the All India Council for Technical Education (AICTE). In 2013, these two bodies expanded the scope of their study and launched the second edition of the survey in May.

In 2012, the focus was only on engineering institutes approved by AICTE in six basic subject streams: Mechanical; Civil; Electronics and Communications; Computer and IT; Electrical and Chemical. Only those institutes that had been established for 10 years or more were eligible to participate and they also had to be offering at least three out of the given six streams of engineering. This year, the scope was substantially expanded to include all streams of engineering (nine specified and the rest covered under an "All Others" category) and also the disciplines of management, pharmacy and architecture. Uni-stream engineering institutes, such as ones offering only computer and IT, chemical or petro-engineering, were also eligible to participate if they fulfilled the other conditions of the basic criteria. Based on the feedback from institutes in 2012, this year participation was also encouraged from emerging institutes in the engineering and management disciplines.

The survey was conducted online and the first level of basic scores calculated through algorithms set after extensive consultation and brainstorming with industry and academic experts.

Eligibility for participation

In order to participate in the online survey, institutes needed to meet specific criteria, depending on their discipline. There were also distinct criteria for established (standard) and emerging institutes.

- **Standard category: engineering, pharmacy and architecture**

  Any institute or university department which was affiliated to AICTE was eligible to participate in the survey. In addition, National Institutes of Technology (NITs) were also allowed to take part. The minimum age requirement was 10 years as on 1 August 2013 (ie, operational since at least 1 August 2003).

- **Standard category: management**

  Any institute or university department which was affiliated to AICTE and had been operational for at least five years as on 1 August 2013 (ie, since at least 1 August 2008).

- **Emerging category: engineering**

  Any institute or university department which was affiliated to AICTE, or NIT, which had been in existence for at least five years and less than 10 years as on 1 August 2013 (ie, becoming operational between 2004 and 2008).

- **Emerging category: management**

  Any institute or university department which was affiliated to AICTE and had been in existence for at least three years and less than five years as at 1 August 2013 (ie, becoming operational between 2009 and 2010).

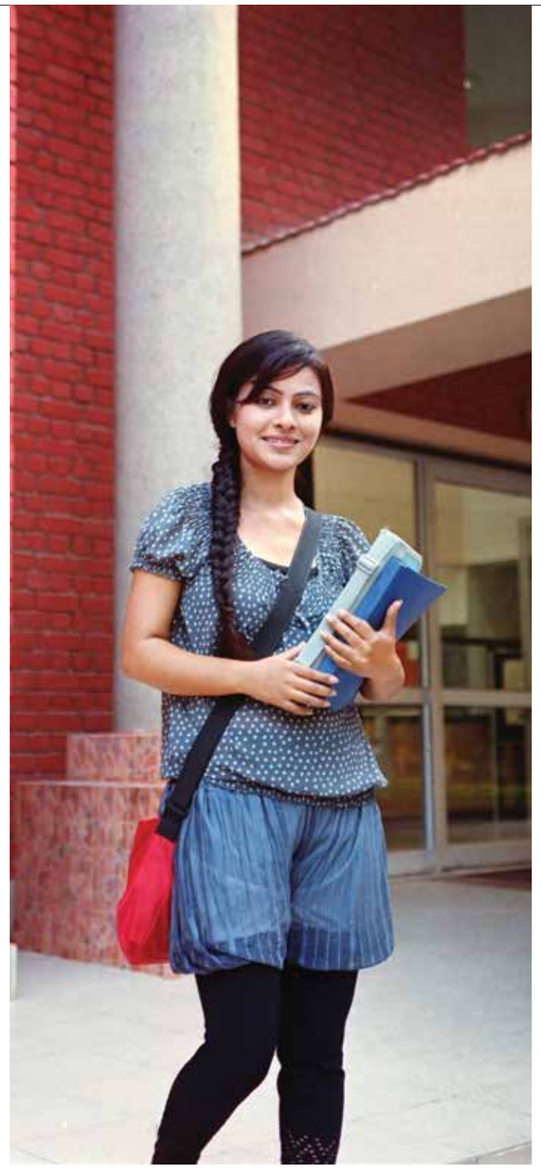
Evaluation aims

Participating institutes have been evaluated for the strength and quality of their linkages with industry by reference to a number of specific dimensions (as explained in detail in Part 2). These look, for example, at the involvement of industry in shaping an institute's curriculum, the degree of interaction that takes place between an institute's faculty members and industry, and the success achieved by institutes' students in gaining placements in industry roles.

The dimensions are designed to give insights into the extent to which institutes:

- Succeed in providing demand-based, industry-responsive education;
- Are equipped to produce talent to meet market requirements; and
- Are sufficiently connected with their industry in order to gain inputs on future challenges in the market.

The findings show that institutes vary considerably in the extent of their industry linkages, and that some forms of linkage are perhaps more easy to achieve than others. Involving industry representatives in an institute's governance through participation in the board of governors or advisory councils is relatively achievable, for example. Institutes find it harder to demonstrate strong industry linkage in their ability to file patents and other intellectual property rights, or the extent to which they make technology transfers to industry. In Part 3, where we provide detailed analysis of the online survey findings, such themes emerge strongly.



Case studies of institutes that are leading the way in developing strong linkages with industry are set out in Part 4, intended to give insight and inspiration to others. As is clearly shown, some institutes are working hard to build meaningful relationships between themselves and industry, thus creating the conditions required to continue providing high quality and relevant technical education for their students.

Survey participation

A total of 1,050 survey responses were received in 2013 (including multiple responses from institutes supplying data for several subject streams).

Online survey participation rates – by department

	Participating departments	Eligible departments	Percentage of participation
Established institutes:			
• Engineering:	660	2,230	30%
• Management:	137	2,064	7%
• Pharmacy:	21	477	4%
• Architecture:	7	80	9%
Emerging institutes:			
• Engineering:	165	2,890	6%
• Management:	60	1,640	4%

Participants were drawn from across eight AICTE zones in India. There were particularly high levels of participation among institutes in the southern region, whose online survey entries (across all subject streams) accounted for 23% of all online submissions.

Regional participation

	Frequency	Per cent
Southern	242	23
Western	141	13
South West	169	16
South Central	95	9
Central	124	12
Eastern	60	6
Northern	77	7
North West	142	14
Total	1,050	100

AICTE and CII are grateful to ACCA for conducting the data analysis of the online survey findings and for providing support in preparing this report.

2 METHODOLOGY

METHODOLOGY

This study was initiated by CII jointly with AICTE with the objective of mapping industry linkages of AICTE-approved technical institutions in India.

This report analyses the depth of institutes' engagement with industry and how far they have been able to provide demand-based, industry-responsive education. The purpose of the survey was to see how well these institutes are equipped to supply talent to meet market requirements; and how industry, through its regular connections with these institutes, is able to advise on what is happening in the market.

The 2013 study covered the following disciplines: engineering, management, pharmacy and architecture. In engineering there were nine categories under which institutes could file their applications: chemical, civil, computer and IT, electrical, electronics and communication, mechanical engineering, mining and metallurgy, biotechnology/biochemical/biomedical, and agriculture. Any other category was covered under "All others in engineering". In this category, textile engineering institutes or branches were the main participants, though applications were also filed by institutes with specializations in mechatronics, food technology, instrumentation, and tool and dye engineering.

The analysis and results contained in this report are based on a multistage evaluation process, beginning with a voluntary online survey. This was followed by a validation process, jury visits to selected institutes and jury discussion.

Online survey

The online survey, which was open from 7 May to 15 July 2013, was conducted through institutes logging in to the AICTE portal. Participating institutes provided information for evaluation across six dimensions: curriculum, faculty, infrastructure, research and consultation, placements and governance. Each dimension consisted of specific sub-factors – referred to in this report as "parameters". Each dimension was allotted an individual weighting, as shown in the table below:

	Dimensions	Weighting and Scores
1	Faculty	20% (Maximum score 28)
2	Placements	20% (Maximum score 18)
3	Curriculum	20% (Maximum score 16)
4	Research and consultation	20% (Maximum score 16)
5	Infrastructure	10% (Maximum score 10)
6	Governance	10% (Maximum score 7)
	Total Weighting	**100%**
	Total Score	**95**

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

No.	Dimensions	Evaluation parameters
1	Faculty	• 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	• 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	• 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	Research and consultation	• 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	• Number of centers/ units/ cells financially supported by industry • Percentage of financial contribution by industry in the unit
6	Governance	• 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 weighting of that parameter to obtain the weighted score for every parameter. The sum of weighted scores across the six parameters provided the objective score of each institute. Scores were given according to the method shown in the tables below and overleaf.

It is important to note that, while four of the parameters were given a weighting 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.

1	Industry in curriculum (20%)				Max score : 16
No. of companies providing Industrial training / internship					
0	1 to 5	6 to 10	11 to 15	>15	
0	1	2	3	4	
No. of Industry visits for students					
0	1 to 3	4 to 5	6 to 10	> 10	
0	1	2	3	4	
Percentage of visting faculty from industry as compared to core faculty					
0	1-10%	11-20%	21-30%	>30%	
0	1	2	3	4	
No. of Industry guest lectures / seminars conducted					
0	1 to 5	6 to 10	11 to 15	>15	
0	1	2	3	4	

2	Industry-faculty interface (20%)				Max score : 28
% of faculty members who provided training / lectures to industry during 2012-13					As a % of total faculty members
0	1-25%	25-50%	51-75%	>75%	
0	1	2	3	4	
% of faculty members on the boards of industry / advisory, academic councils / statutory university bodies					As a % of total faculty members
0	1-10%	11-20%	21-30%	>30%	
0	1	2	3	4	
No. of man-days of refresher courses provided by faculty to industry executives during 2012-13					Add the number of days for each faculty member
0	1 to10	11 to 20	21 to 30	>30	
0	1	2	3	4	
No. of man-days of programmes attended / trainings received by faculty from industry during 2012-13					Add the number of days for each faculty member
0	1 to 10	11 to 20	21 to 30	>30	
0	1	2	3	4	
No. of faculty patents, design and other IPRs except copyrights of books in 2012-13 GRANTED					
0	1 to 2	3 to 4	5 to 6	>6	
0	2	4	6	8	
No. of faculty patents, design and other IPRs except copyrights of books in 2012-13 FILED					
0	1 to 2	3 to 4	5 to 6	>6	
0	1	2	3	4	

3	Industry in infrastructure (10%)				Max score : 10
Number of centers / units / cells financially supported by industry					
0	1 to 2	3 to 4	>4		
0	2	4	6		
% of financial contribution by industry in the unit					Financial contribution as a % of expenditure of the cell
<10%	10-20%	21-50%	51-75%	>76%	
0	1	2	3	4	

4	Industry research / consultation (20%)				Max score : 16
Number of Contractual Research projects assigned to institute during 2012-13					
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	
Number of Technology Transfers to industry during 2012-13					
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					
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
<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
<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)
0	1-10%	11-25%	26-50%	>50%	
0	1	3	5	7	

6	Industry in governance (10%)				Max score : 7
Number of industry members on BoG / advisory councils					
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
x = 0	x = 1- 25	x = 26 - 50	x = 51 - 75	x > 75	
0	1	2	3	4	

Validation process

Based on the objective scores, a shortlist of 147 institutes was created and the institutes were asked to send all correspondence, letters, certificates, brochures, books, pamphlets or any other document that could validate their entries on the portal. Papers from 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.

Jury visits

Members of the distinguished jury visited the short-listed institutes in October 2013 in order to obtain onsite verification of their online survey scores. The 37 institutes visited are listed below.

Institutes selected for jury visits

Institute name	Streams qualified for	Region
Acharya & BM Reddy College of Pharmacy	Pharmacy	South-West
Acharya Institute of Technology	C&IT, E&C	South-West
Ambala College of Engineering & Applied Research	E&C	North-West
Bannari Amman Institute of Technology	Bio, C&IT, EE, Man, Textile	Southern
Bombay College of Pharmacy	Pharmacy	Western
Central Institute of Plastics Engineering & Technology Lucknow	Chem	Northern
CK Shah Vijapurwala Institute of Management	Emerging Man	Central
College of Engineering, Pune	Civil, EE, Mech etc, Min	Western
D.K.T.E. Society's Textile & Engineering Institute	Textile	Western
Entrepreneurship Development Institute of India	Man	Central
Era Business School	Emerging Man	North-West
Erode Sengunthar Engineering College	Chem	Southern
Goa Institute of Management	Man	Western
IES College of Technology, Bhopal	Emerging Eng	Central
Institute of Chemical Technology	Chem	Western
Institute of Management Studies, Noida	Man	Northern
I.S.F. College of Pharmacy	Pharmacy	North-West
K.M. College of Pharmacy	Pharmacy	Southern
Kongu Engineering College	Chem, C&IT, EE, Man	Southern
Kumaraguru College of Technology	Civil	Southern
Lal Bahadur Shastri Institute of Managemenet, Delhi	Man	North-West
Manipal Institute of Technology	EE	South-West
Master School of Management	Man	Northern
M. Kumarasamy College of Engineering	C&IT	Southern
PSG College of Technology	E&C, Mech etc, Min	Southern
PSNA College of Engineering and Technology, Dindigul	Bio, Civil, C&IT, EE	Southern
Rajalakshmi Engineering College (Engineering & Technology)	C&IT, Mech etc	Southern
Rajiv Gandhi Institute for Steel Technology	Emerging Eng	South-West
R.M.K. Engineering College	C&IT	Southern
S.A. Engineering College	C&IT, E&C	Southern
Sona College of Technology	C&IT	Southern
Sri Ramachandra College of Pharmacy	Pharmacy	Southern
Sri Sai Ram Engineering College	Mech etc, Man	Southern
United Institute of Management (MBA)	Man	Northern
Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College	Chem	Southern
Walchand Institute of Technology	Civil, C&IT, E&C, Mech etc	Western
Xavier Labour Relations Institute	Man	Eastern

Stream abbreviations are as follows:
Bio = Biotechnology / Biochemical / Biomedical
C&IT = Computer and IT engineering
Chem = Chemical engineering
Civ = Civil engineering
E&C = Electronics and communication engineering
EE = Electrical engineering
Emerging Eng = Emerging engineering
Emerging Man = Emerging management
Man = Management
Mech etc = Mechanical / Automobile / Industrial / Production engineering
Min = Mining / Metallurgy engineering

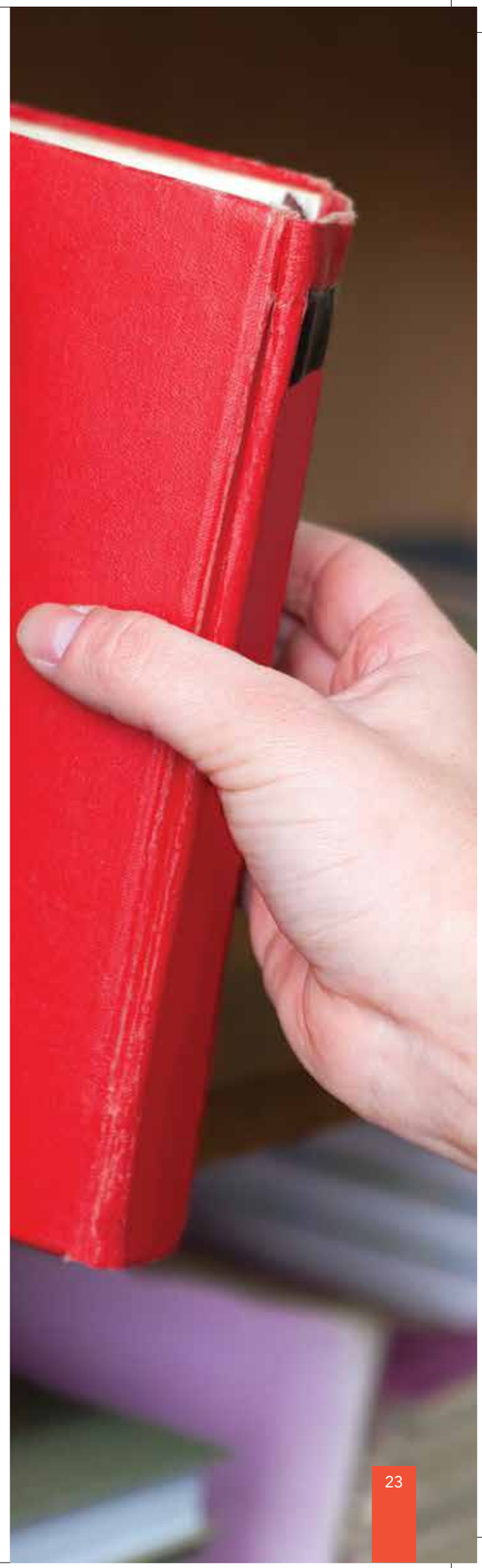
The jury members were asked to:

- Consider whether the institute met expectations in terms of having high linkage with industry (scores were awarded on a scale of 1 to 5);
- Consider whether the information provided by the institute in the online survey was relevant (scored on a scale of 1 to 5);
- Make their own analysis of the industry linkages of the institute (captured in a 100-word feedback summary).

Having conducted their onsite visits of shortlisted institutes, the jury members met to discuss their findings. Based on their assessments, the jury recommended 8 institutes for awards.

Winners of AICTE-CII survey for best industry-linked technical institutes 2013

Stream	Institute
Computer and IT Engineering	Sona College of Technology
Electronics and Communication Engineering	PSG College of Technology
Civil Engineering	Walchand Institute of Technology
Electrical Engineering	Kongu Engineering College
Chemical Engineering	ICT Mumbai
Management (Standard)	XLRI Jamshedpur
Mechanical Engineering	College of Engineering Pune
Pharmacy	Bombay College of Pharmacy



3 SURVEY EVALUATION

SURVEY EVALUATION

A total of 1,050 survey responses were received from established engineering, management, pharmacy and architecture institutes, and from emerging engineering and management institutes.

Numbers of participants in each discipline and subject stream are shown below.

Survey participants

Established institutes	
Engineering	
• Civil engineering:	79
• Computer and IT:	129
• Electrical:	106
• Electronics and communication:	128
• Mechanical/Automobile/Industrial production:	118
• Other:	100
Total established engineering	**660**
Management:	137
Pharmacy:	21
Architecture:	7
Emerging institutes	
Engineering:	165
Management:	60
Total survey participants	**1,050**

Understanding the data analysis

This was a large online survey, involving data submissions across many different subject streams. A number of points are worth highlighting:

- Individual institutes could participate in more than one subject stream. Therefore, while 1,050 survey responses were received, some institutes made multiple submissions.
- In the established engineering category, all subjects with fewer than 50 participants have been grouped into "other" stream in order to enable meaningful analysis. These were Biotechnology/Biochemical/Biomedical (25), Chemical engineering (21), Food and agriculture (3), Mining/Metallurgy (4) and Petrochemical (0). These were added to the engineering institute survey responses submitted under "all other disciplines" (47).
- Where respondents entered no data in response to a specific question, it is assumed that they had no activity in that area and thus were given a zero score for that parameter.
- In the emerging engineering category, where institutes made multiple entries, their scores were averaged. This was to enable analysis of the results on an overall basis.

Analysis structure

The online survey scores are analysed in this report as follows:

- a high-level national analysis by region and dimension
- a high-level review of the overall performance of established engineering institutes, analysed by dimension and region
- individual engineering subject streams, with a focus on high and low performers
- a high-level review of the performance of established management institutes, analysed by dimension and region
- detailed analysis of high and low-band performers among established management institutes
- a high-level review of survey responses from pharmacy and architecture institutes
- emerging engineering institutes
- emerging management institutes

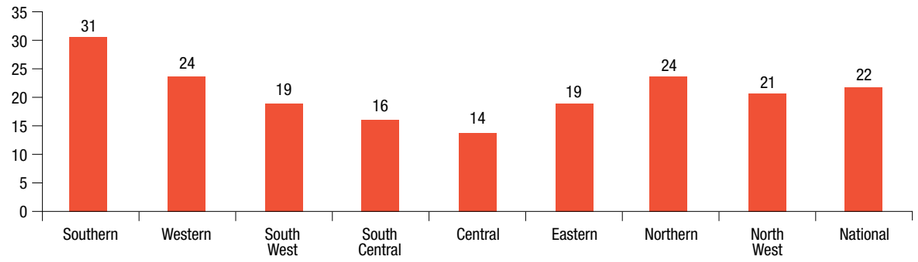
NATIONAL PERSPECTIVE

Taking the data from all 1,050 survey responses – encompassing established engineering, management, pharmacy and architecture institutes, and all emerging engineering and management institutes, the southern region emerges as the strongest performer.

Participating institutes from the southern region achieved an average final score of 31, almost seven points ahead of the northern and western regions. All three of these regions achieved an average score higher than the national average of 22.

Institutes in the central regional recorded the lowest scores on average, around eight points below the national average.

1. Average final scores across regions

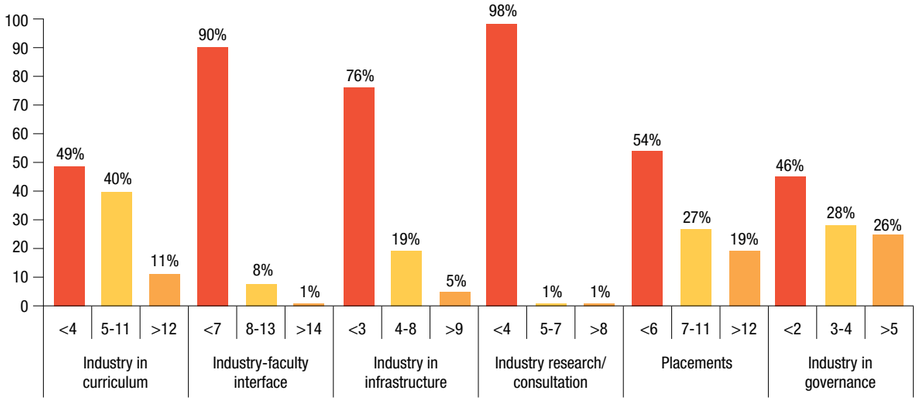


Analysis of the survey results by dimension also shows considerable variations in achievement. Institutes' overall performance by dimension is illustrated in Figure 2; this shows the percentage of institutes falling into groups based on their scores, or ratings, achieved in the online survey under each dimension. Note that the cut-off points for each group are different for each dimension, due to the different maximum scores attainable.

Based on the data for 885 survey participants (all participants except emerging engineering institutes, for which the specific data was not available), institutes have strongest linkages with industry in three areas: industry involvement in their governance, their activity to help place students in industry roles, and in the degree to which industry has involvement in their curricula. For example, 26% achieved a rating of five or more in the governance dimension, out of a potential available total of seven.

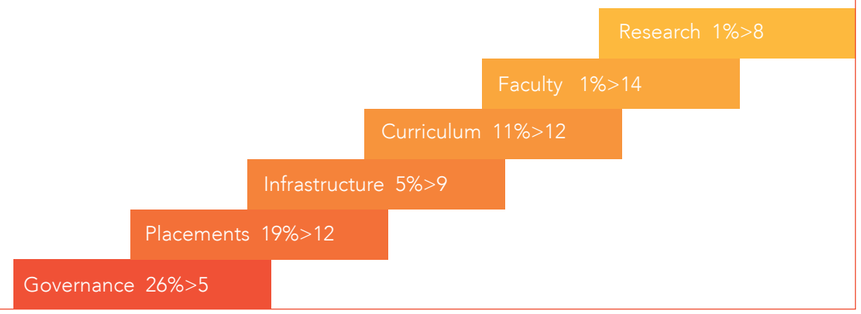
However, all institutes regardless of discipline or specific subject stream appear to struggle to score highly in relation to industry involvement in their research activities: 98% achieved a score of four or less in the research and consultation dimension. It appears that institutes are rarely contracted to conduct research projects by companies, nor do they often make technology transfers to industry. There is also much more scope for the provision of consultancy or advisory services to industry.

2. Distribution of ratings in each dimension across all institutes



Again, institutes typically score poorly in terms of the levels of interaction between faculty members and industry, whether in terms of training (either provided by faculty to industry or vice versa), through involvement of faculty members on company boards or advisor councils, or levels of intellectual property rights being filed or granted.

Climbing the ladder of institute-industry linkages



This ladder displays the percentages of all participating institutes (emerging engineering institutes excluded) that achieved a score in the upper group for each dimension. The bottom rungs of the ladder are represented by the dimensions where institutes can generally build linkages with industry more easily; the dimensions forming the top rungs are those where collaboration between institutes and industry is typically considered more difficult to achieve.

It clearly shows that institutes are performing best in the governance dimension – the lowest rung of the ladder, through involving industry representatives on their boards of governors. Over a quarter (26%) scored 5 or more for governance, so entering the higher scoring group for that dimension. Institutes are also achieving relative success in the placements dimension (19% scoring more than 12), finding ways to help their students gain jobs in industry roles.

In contrast, relatively few institutes are succeeding in building strong industry linkages in relation to the top rungs of the ladder; few are achieving relatively high scores in the dimensions focused on the interface between faculty and industry, and on industry-linked research and consulting activity. Only 1% achieved a score of more than 14 in the faculty dimension, and similarly only 1% scored eight or more in the research and consultation dimension. Achieving strong industry linkages in these dimensions is more difficult for institutes, but is nevertheless something they must do if they wish to improve their performance in future surveys of this type.

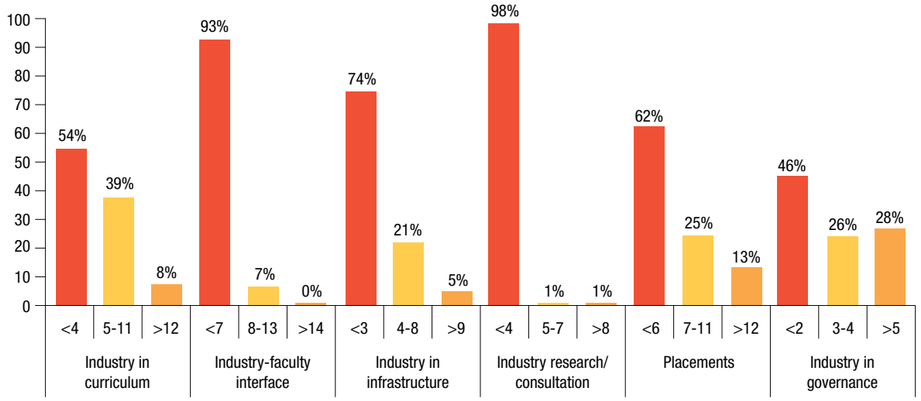
ESTABLISHED ENGINEERING INSTITUTES

A total of 660 subject streams in well-established engineering institutes were represented in this year's survey.

Institutes' overall performance by dimension is illustrated in Figure 3; this shows the percentage of institutes falling into groups based on their scores, or ratings, achieved in the online survey under each dimension. Note that the cut-off points for each group are different for each dimension, due to the different maximum scores attainable.

Analysis of the results as a whole shows that most established engineering institutes are doing relatively well in building linkages with industry in terms of governance matters. Many institutes have more than six industry members on their board of governors or advisory councils, for example, although not all members attend meetings. As illustrated, 28% of all engineering subject streams achieved a rating of more than five in the survey in relation to their governance.

3. Distribution of ratings in each dimension across all engineering subjects

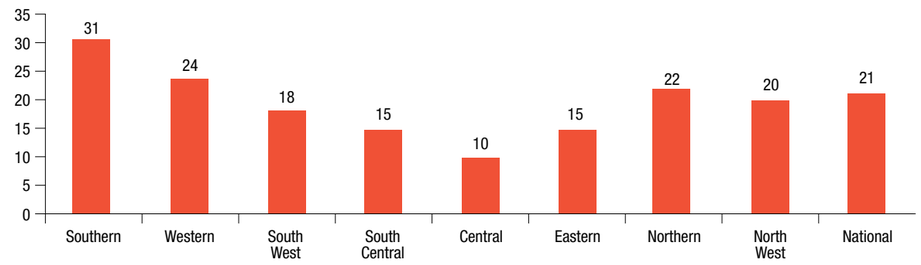


Engineering subject streams also do relatively well in terms of involving industry in their curricula. This can take the form of companies providing industrial training or internships, arranging industry visits for students, having industry representatives as visiting faculty members, or arranging guest lectures or seminars by industry figures.

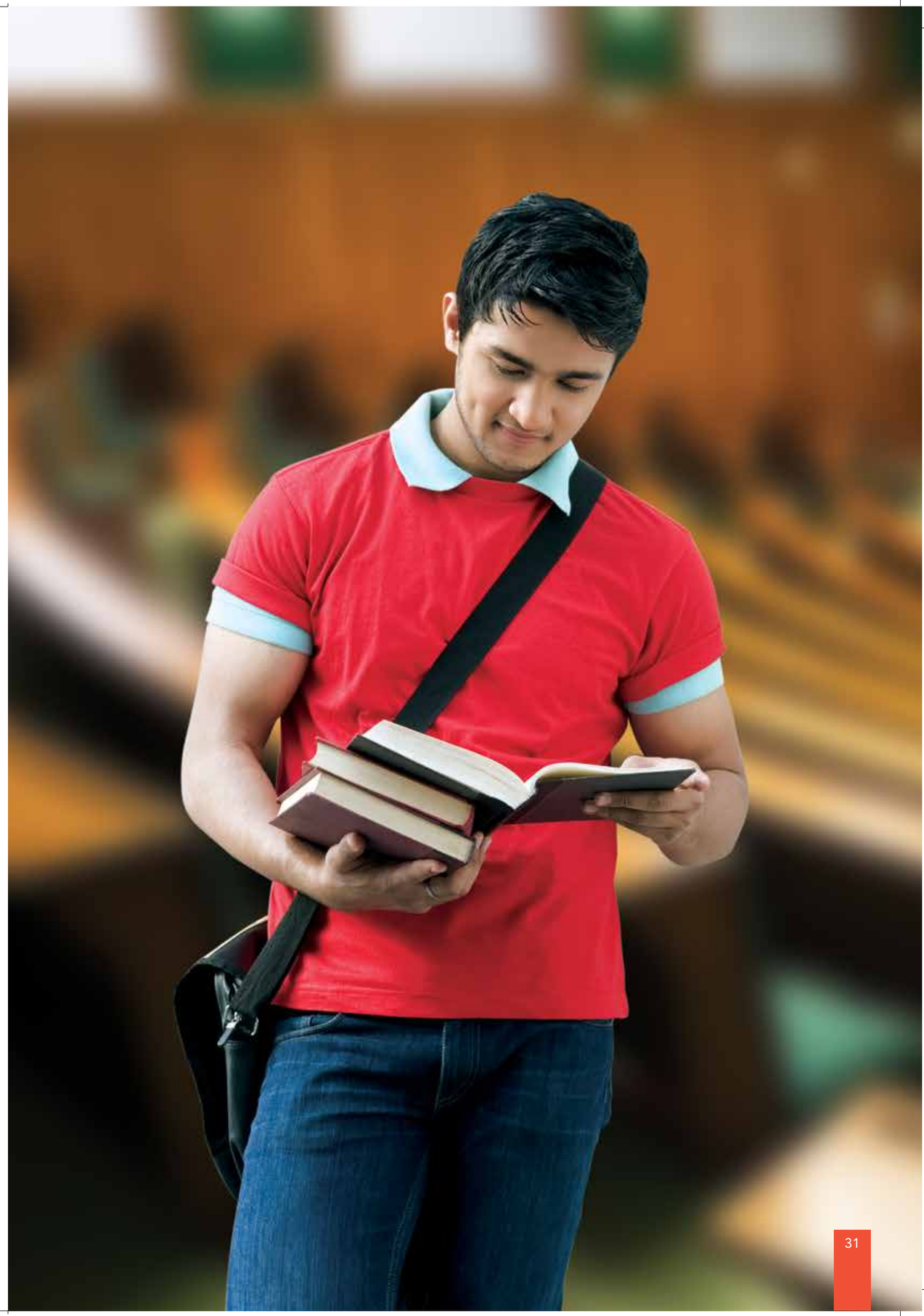
Established engineering institutes appear to have relatively weak linkages to industry in the area of research and consultancy, however, few being contracted by industry to conduct research projects. Technology transfers to industry are also rare. Similarly, interaction between faculty members and industry is typically weak when it comes to training provided by faculty to industry (or vice versa), faculty involvement in company boards or industry councils, or the filing or granting of intellectual property rights.

From a regional perspective, survey participants from southern, western and northern regions attained higher than average scores in the online survey (see Figure 4). Nevertheless, there was a significant difference in performance between southern and northern engineering institutes – this contrasts with the results for established management institutes, where the performance gap between southern and northern regions was marginal. It is also striking that, for engineering institutes, the average score by participants in the central region was almost half that of the national average

4. Average scores across regions for all engineering subjects



Having reviewed the overall picture for engineering institutes, our analysis now focuses on the performance of individual subject streams.



CIVIL ENGINEERING

There were 79 survey responses in this subject stream. Our analysis is based on grouping institutes into three scoring bands: low, medium and high.

Banding definitions	% of respondents per band
High: 29.42 and above	13%
Medium: 5.07-29.42	71%
Low: Below 5.07	16%

What distinguishes high from low?

High-band institutes are far more likely to involve industry representatives as visiting or adjunct faculty, and to involve industry in delivering guest lectures or seminars. Faculty members also interact with industry – by providing training or joining industry boards – in ways that low-band institutes do not. Many high-band institutes also provide consultancy services to industry.

Low-band institutes are not obtaining any financial support from industry for their infrastructure. While industry representatives do belong to some boards of governors or advisory councils, they do not attend meetings.

High

Curriculum

- 53% of high-band institutes had more than 11 companies providing industrial training or internships
- 30% arranged more than six industry visits for students
- In 77% of institutes, visiting faculty from industry made up over 11% of the total faculty team
- 46% reported more than six industry guest lectures or seminars being conducted

Faculty

- In 62% of institutes, 1%-25% of faculty members provided training or lectures to industry during 2012-13
- 39% provided more than 10 man-days of refresher courses by faculty to industry executives during 2012-13
- No institute filed any faculty patents, design or other IPRs (except copyrights of books) in 2012-13, nor had any IPRs granted (books excluded)

Infrastructure

- 61% of institutes have at least one centre, unit or cell financially supported by industry
- 38% received a financial contribution from industry of at least 76% of unit expenditure

Research and consultation

- Even high-band institutes perform poorly on this dimension, with 84% having no contractual research projects assigned to them during 2012-13 and 92% making no technology transfers to industry during 2012-13
- However, 61% provided more than 21 instances of consultancy or advisory services to industry during 2012-13

Placements

- Only 8% had more than 40% of companies with a stream- or specialization-specific job profile coming to campus
- 23% had more than 50% of students being offered jobs in specialization- or stream-specific companies in 2012-13
- In 46% of institutes, over 60% of students were offered jobs from campus during 2012-13

Governance

- 77% of institutes have more than six industry members on their board of governors or advisory councils
- 46% report that over 75% of industry members of boards of governors and advisory councils attend their meetings

Low

Curriculum

- 80% of low-band institutes had no companies providing any industrial training or internships
- 80% had arranged no industry visits for students
- No institutes had any visiting faculty members from industry, and only one institute reported any industry guest lectures or seminars being conducted

Faculty

- Institutes in the low band scored zero in each of the six parameters, indicating that faculty members have no direct interaction with industry in relation to providing or receiving training to and from industry, or filing patents

Infrastructure

- No institute received financial support from industry for any centres, units or cells

Research and consultation

- No contractual research projects, technology transfers or consultancy services were recorded by any institute

Placements

- All institutes had less than 40% of companies with a stream- or specialization-specific job profile coming to campus
- 80% had no students being offered jobs in specialization- or stream-specific companies in 2012-13
- No institute reported more than 40% of students being offered a job from campus in 2012-13

Governance

- 40% had between one and three industry members on their board of governors or advisory councils
- At no institute did those industry members attend meetings of boards of governors or advisory councils

COMPUTER AND IT

There were 129 survey responses in this subject stream. Our analysis is based on grouping institutes into three scoring bands: low, medium and high.

Banding definitions	% of respondents per band
High: 40.86 and above	22%
Medium: 11.24-40.86	60%
Low: Below 11.24	18%

What distinguishes high from low?

High-band institutes have obtained relatively high levels of industry involvement in their curricula, through the provision of industrial training or internships, for example, and having industry representatives as visiting faculty members. Faculty members in high-band institutes also have greater interaction with industry, taking roles on industry boards or providing refresher courses for industry. Almost all receive some financial support from industry for their infrastructure – while not a single low-band institute does so.

Low-band institutes provide no consultancy services to industry (unlike high-band institutes), and they are less likely to involve industry members in their governance

High

Curriculum

- 87% of high-band institutes had more than 11 companies providing industrial training or internships
- 62% arranged more than six industry visits for students
- In 62% of institutes, visiting faculty from industry made up over 11% of the total faculty team

Faculty

- 21% have more than 11% of their faculty members on the boards of industry, advisory or academic councils, or statutory university bodies
- 38% provided more than 10 man-days of refresher courses by faculty to industry executives during 2012-13
- 16% filed one or more faculty patents, design or other IPRs (except copyrights of books) in 2012-13
- No institute had any IPRs granted (books excluded)

Infrastructure

- 95% of institutes have at least one centre, unit or cell financially supported by industry
- 37% received a financial contribution from industry of at least 76% of unit expenditure

Research and consultation

- Even high-band institutes struggle in this dimension, with 66% having no contractual research projects assigned to them during 2012-13 and 79% making no technology transfers to industry during 2012-13
- 62% provided some form of consultancy or advisory services to industry during 2012-13

Placements

- Only 20% had more than 40% of companies with a stream- or specialization-specific job profile coming to campus
- Nevertheless, 75% had more than 50% of students being offered jobs in specialization- or stream-specific companies in 2012-13
- In 79% of institutes, over 60% of students were offered jobs from campus during 2012-13

Governance

- 75% of institutes have more than six industry members on their board of governors or advisory councils
- 62% report that over 75% of industry members of boards of governors and advisory councils attend their meetings

Low

Curriculum

- 46% of low-band institutes had no companies providing any industrial training or internships
- 71% had arranged no industry visits for students
- Only two institutes had any visiting faculty members from industry

Faculty

- No institute provided refresher courses to industry executives by faculty during 2012-13
- In 7% of institutes, up to 25% of faculty members provided training or lectures to industry during 2012-13

Infrastructure

- No institute received financial support from industry for any centres, units or cells

Research and consultation

- One institute reported one to two technology transfers to industry during 2012-13
- No other research or consultation activity was recorded

Placements

- Over 90% had less than 40% of companies with a stream- or specialization-specific job profile coming to campus
- 50% had no students who were offered jobs in specialization- or stream-specific companies in 2012-13
- In 92% of institutes, less than 40% of students were offered jobs from campus during 2012-13

Governance

- 50% of institutes have no industry members on their board of governors or advisory councils
- Only 10% reported that at least one industry member attended meetings of boards of governors or advisory councils

ELECTRICAL ENGINEERING

There were 106 survey responses in this subject stream. Our analysis is based on grouping institutes into three scoring bands: low, medium and high.

Banding definitions	% of respondents per band
High: 33.58 and above	16%
Medium: 7.17-33.58	65%
Low: Below 7.17	19%

What distinguishes high from low?

High-band institutes actively involve industry in their curricula, through the provision of training or internships, industry visits, or industry membership of faculty. Four out of five high-band institutes receive financial support from industry for the costs of their infrastructure, whereas no low-band institute reports any such funding. High-band institutes also are far more likely to involve industry in their governance, through membership of their board of governors or advisory council.

Though both high and low-band institutes struggle to score well in terms of research activity that involves industry, low-band institutes are not even providing any advisory or consultancy services to industry.

High

Curriculum

- 70% of high-band institutes had more than 11 companies providing industrial training or internships
- 70% arranged more than six industry visits for students
- In 55% of institutes, visiting faculty from industry made up over 11% of the total faculty team

Faculty

- 45% had more than 11 man-days of programmes attended or trainings received by faculty from industry during 2012-13
- Only 15%, however, had more than 30 man-days of refresher courses provided by faculty to industry in 2012-13
- One institute had filed more than six faculty patents, design or other intellectual property rights (excluding books) in 2012-13
- One institute had up to two faculty patents or other IPRs granted (copy rights of books excluded) in 2012-13

Infrastructure

- 80% of institutes have at least one centre, unit or cell financially supported by industry
- 20% received a financial contribution from industry of at least 76% of unit expenditure, while 40% received a financial contribution from industry of less than 10%

Research and consultation

- Even high-band institutes have difficulty with this dimension, 80% having no contractual research projects assigned to them during 2012-13 and 75% making no technology transfers to industry during 2012-13
- Only 50% provided any consultancy or advisory services to industry in 2012-13

Placements

- Over 94% had less than 40% of companies with a stream- or specialization-specific job profile coming to campus (the same results as for low-band institutes)
- Nevertheless, in 60% of institutes, over 60% of students were offered jobs from campus during 2012-13
- In 70%, more than 50% of students were offered jobs in specialization- or stream-specific companies in 2012-13

Governance

- 80% of institutes have more than six industry members on their board of governors or advisory councils
- 55% report that over 75% of industry members of boards of governors and advisory councils attend their meetings

Low

Curriculum

- 59% of low-band institutes had no companies providing any industrial training or internships
- 53% had arranged no industry visits for students
- 88% had no visiting faculty members from industry

Faculty

- Just one institute reported up to 10 man-days of programmes attended or trainings received by faculty from industry in 2012-13
- In none of the other ways considered did institutes' faculty have any direct interaction with industry – no intellectual property rights being filed or granted, for example

Infrastructure

- No institute received financial support from industry for any centres, units or cells

Research and consultation

- No contractual research projects, technology transfers or consultancy services were recorded by any institute

Placements

- Over 94% had less than 40% of companies with a stream- or specialization-specific job profile coming to campus (the same results as for high-band institutes)
- 33% reported only 1%-25% of their students being offered jobs in specialization- or stream-specific companies in 2012-13

Governance

- 82% of institutes have no industry members on their board of governors or advisory councils
- No institute reported attendance by industry members at board or council meetings

ELECTRONICS AND COMMUNICATION

There were 128 survey responses in this subject stream. Our analysis is based on grouping institutes into three scoring bands: low, medium and high.

Banding definitions	% of respondents per band
High: 31.5 and above	17%
Medium: 6.9-31.5	70%
Low: Below 6.9	13%

What distinguishes high from low?

High-band institutes involve industry in their curricula, not only through industry training and visits, but also by involving industry as guest faculty members. Levels of financial support for infrastructure are also relatively high, whereas no low-band institute received any financial support for infrastructure costs from industry. High-band institutes are far more likely to include industry representatives on their board of governors or advisory councils.

Low-band institutes are far less likely to report interaction between faculty and industry, with very limited training activity taking place between faculty and industry.

High

Curriculum

- 81% of high-band institutes had more than 11 companies providing industrial training or internships
- 68% arranged more than six industry visits for students
- In 68% of institutes, visiting faculty from industry made up over 11% of the total faculty team

Faculty

- 63% had more than 21 man-days of programmes attended or trainings received by faculty from industry during 2012-13
- Only 18% had filed at least one patent or other intellectual property right (excluding books) in 2012-13
- No institute had any patents or intellectual property rights granted (copy rights of books excluded)

Infrastructure

- 86% of institutes have at least one centre, unit or cell financially supported by industry
- 55% received a financial contribution from industry of at least 76% of unit expenditure

Research and consultation

- Even high-band institutes struggle in this dimension, with 72% having no contractual research projects assigned to them during 2012-13 and 72% making no technology transfers to industry during 2012-13
- Only 50% provided any consultancy or advisory services to industry in 2012-13

Placements

- Over 90% had less than 40% of companies with a stream- or specialization-specific job profile coming to campus (the same results as for low-band institutes)
- Nevertheless, in 72% of institutes, over 60% of students were offered jobs from campus during 2012-13
- 59% reported no students being offered jobs in specialization- or stream-specific companies in 2012-13

Governance

- 86% of institutes have more than six industry members on their board of governors or advisory councils
- 54% report that over 75% of industry members of boards of governors and advisory councils attend their meetings

Low

Curriculum

- 56% of low-band institutes had no industrial training or internships provided by companies
- 81% had arranged no industry visits for students
- No institutes had any visiting faculty members from industry

Faculty

- Just one institute had any man-days of programmes attended or trainings received by faculty from industry in 2012-13
- In none of the other ways considered did institutes' faculty have any direct interaction with industry – no intellectual property rights being filed or granted, for example

Infrastructure

- No institute received financial support from industry for any centres, units or cells

Research and consultation

- No institute reported any achievements in this dimension, indicating no interaction with industry in relation to contractual research projects, technology transfers or provision of consultancy services

Placements

- Over 90% had less than 40% of companies with a stream- or specialization-specific job profile coming to campus (the same result as for high-band institutes)
- In only 12% of institutes were up to 10% of students offered jobs in specialization- or stream-specific companies in 2012-13

Governance

- 75% of institutes have no industry members on their board of governors or advisory councils
- No institute reported industry members attending meetings of boards of governors or advisory councils

MECHANICAL/AUTOMOBILE/ INDUSTRIAL PRODUCTION

There were 118 survey responses in this subject stream. Our analysis is based on grouping institutes into three scoring bands: low, medium and high.

Banding definitions	% of respondents per band
High: 37.73 and above	15%
Medium: 9.15-37.73	70%
Low: Below 9.15	15%

What distinguishes high from low?

Industry is involved in the curricula of high-band institutes, particularly through the occurrence of industry visits by students. Faculty in high-band institutes also have a record of receiving training from industry, whereas no such faculty-industry interaction occurs in low-band institutes.

High-band institutes are far more likely to receive funding from industry towards the costs of their centres and units: not a single low-band institute received such financial support. High-band institutes are also far more likely to involve industry in their board of governors or advisory councils, and to report placement successes for their students.

High

Curriculum

- 72% of high-band institutes had organised more than six industrial visits for students
- In 50% of institutes, visiting faculty from industry made up over 11% of the total faculty team

Faculty

- 72% recorded more than 21 man-days of programmes attended or trainings received by faculty from industry during 2012-13
- Even among high scorers, few had success in filing and being granted patents and other intellectual property rights: 83% had filed none and 89% had none granted

Infrastructure

- 50% have more than four centres, units or cells financially supported by industry
- 66% received a financial contribution from industry of at least 76% of unit expenditure

Research and consultation

- 67% had no contractual research projects assigned to the institute during 2012-13
- 77% had no technology transfers to industry during 2012-13

Placements

- In 89% of institutes, more than 60% of students were offered jobs from campus during 2012-13
- In 94%, no companies with a stream- or specialization-specific job profile visited the campus

Governance

- 83% of institutes have more than six industry members on their board of governors or advisory councils
- In 50% of institutes, over 75% of industry members of the board of governors or advisory councils attend the meetings

Low

Curriculum

- 67% of low-band institutes had organised no industrial visits for students
- 95% have no visiting faculty members from industry

Faculty

- Institutes in the low band scored zero in each of the six parameters, indicating that faculty members have no direct interaction with industry in relation to providing or receiving training to and from industry, or filing patents

Infrastructure

- No institutes obtained any financial support from industry for any of their centres, units or cells

Research and consultation

- Only one institute provided any consultancy or advisory services to industry during 2012-13

Placements

- In 39% of institutes, only1%-25% of students were offered jobs in specialization- or stream-specific companies in 2012-13
- No institutes had any companies with stream- or specialization-specific job profiles coming to campus

Governance

- 28% have at least one industry member on their board of governors or advisory councils – in other words, 72% have no industry members at all

OTHER ENGINEERING

There were 100 survey responses in this group. The desktop assessment of online responses showed that textile engineering was the dominant stream among participating institutes in this category. Our analysis is based on grouping institutes into three scoring bands: low, medium and high.

Banding definitions	% of respondents per band
High: 30.05 and above	17%
Medium: 5.10-30.05	70%
Low: Below 5.10	13%

What distinguishes high from low?

High-band institutes clearly make an effort to involve industry in their curricula, particularly through the provision of industrial training or internships and through arranging industry visits for students. They are also relatively likely to receive financial support from industry towards the costs of their infrastructure. Students at high-band institutes have a high success rate in terms of being offered jobs from campus. Industry representatives are also involved in the governance of many high-band institutes through membership of their board of governors or advisory councils.

Low-band institutes are weak in many areas. Industry involvement in their curricula is extremely limited. None receive any financial support from industry towards their infrastructure costs. Students are less likely to be successful in gaining jobs from campus. Industry has little involvement in low-band institutes' governance.

High

Curriculum

- 82% of high-band institutes had more than 11 companies providing industrial training or internships
- 82% arranged more than six industry visits for students
- In 58% of institutes, visiting faculty from industry made up over 11% of the total faculty team
- In 70%, more than six guest lectures or seminars were conducted by industry representatives

Faculty

- 47% had no faculty members on the boards of industry, advisory or academic councils, or statutory university bodies
- 35% provided 11 or more man-days of refresher courses to industry by faculty in 2012-13
- 41% had filed at least one faculty patent, design or other intellectual property right (excluding copyrights of books) in 2012-13
- One institute had been granted up to two faculty patents or other IPRs (books excluded)

Infrastructure

- 76% have at least one centre, unit or cell that is financially supported by industry
- 52% received a financial contribution from industry of at least 76% of unit expenditure

Research and consultation

- 41% had no contractual research projects assigned to the institute during 2012-13
- 82% made no technology transfers to industry during 2012-13
- 65% provided some form of consultancy or advisory services to industry during 2012-13, with 41% reporting up to 10 such assignments

Placements

- In 82% of institutes, more than 40% of students were offered jobs from campus during 2012-13
- Only 11% had more than 40% of companies with a stream- or specialization-specific job profile visiting the campus

Governance

- 76% of institutes have more than six industry members on their board of governors or advisory councils
- In 35% of institutes, over 75% of industry members of the board of governors or advisory councils attend the meetings

Low

Curriculum

- 56% of low-band institutes had no industrial training or internships provided by companies
- 81% had arranged no industry visits for students
- No institutes had any visiting faculty members from industry

Faculty

- Just one institute had any man-days of programmes attended or trainings received by faculty from industry in 2012-13
- In none of the other ways considered did institutes' faculty have any direct interaction with industry – no intellectual property rights being filed or granted, for example

Infrastructure

- No institute received financial support from industry for any centres, units or cells

Research and consultation

- No institute reported any achievements in this dimension, indicating no interaction with industry in relation to contractual research projects, technology transfers or provision of consultancy services

Placements

- Over 90% had less than 40% of companies with a stream- or specialization-specific job profile coming to campus (the same result as for high-band institutes)
- In only 12% of institutes were up to 10% of students offered jobs in specialization- or stream-specific companies in 2012-13

Governance

- 75% of institutes have no industry members on their board of governors or advisory councils
- No institute reported industry members attending meetings of boards of governors or advisory councils

CHEMICAL ENGINEERING

Detailed analysis of high and low performers among institutes providing training in chemical engineering is not feasible due to the relatively small number of data submissions received (21). Also, one anomaly in this group was that, although it contained a number of institutes with established track records in their field, even the top score in this category was very low when compared to other streams. This could be due to the fact that good institutes tend to be blasé about their work and lack competitive spirit because of the sheer gap in their standing and that of others. Based on the available data, this high-level review offers some key findings for the group as a whole.

Curriculum

- 67% of all chemical engineering institutes report at least one company providing industrial training or internships for students
- 57% have at least one guest lecture or seminar provided by industry
- 47% organised between one and 10 industry visits for their students

Faculty

- Institutes generally scored poorly in relation to the degree of interaction between faculty members and industry
- Only two institutes had any faculty members on the boards of industry, advisory councils or statutory university bodies
- Only two institutes reported providing any training to industry by faculty members

Infrastructure

- 19% of all chemical engineering institutes received some financial support from industry towards the infrastructure costs of their centres, units or cells

Research and consultation

- Institutes generally have little interaction with industry in relation to research and consultancy activities
- Only one institute had any contractual research projects assigned to it during 2012-13
- Five institutes provided between one and 10 consultancy or advisory services to industry in 2012-13

Placements

- For all chemical engineering institutes, less than 40% of companies visiting campus had a stream- or specialization-specific job profile
- 62% reported than no students were offered jobs in specialization- or stream-specific companies in 20-12-13

Governance

- Institutes performed relatively well in relation to the involvement of industry in their governance frameworks
- 76% have at least one industry member on their board of governors or advisory councils
- 33% report that at least 26% of industry members of boards of governors and advisory councils attend their meetings

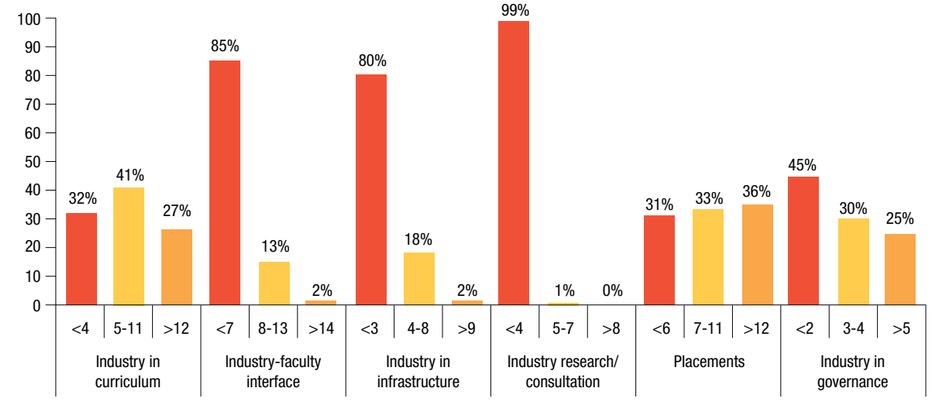
ESTABLISHED MANAGEMENT INSTITUTES

From an overall perspective, online survey respondents in the management discipline typically achieved higher scores than other participants.

Established management institutes' overall performance by dimension is illustrated in Figure 5; this shows the percentage of institutes falling into groups based on their scores, or ratings, achieved in the online survey under each dimension. Note that the cut-off points for each group are different for each dimension, due to the different maximum scores attainable.

Management institutes do particularly well in terms of the placements their students achieve in industry roles. Over a third (36%) achieved a rating of 12 or more in this respect in the online survey.

5. Distribution of ratings in each dimension across all established management institutes

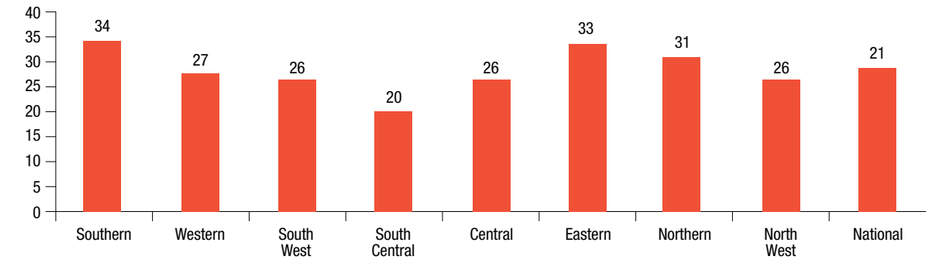


Management institutes also score well in terms of involving industry in their curricula. Many involve companies in providing industrial training or internships, arrange industry visits for their students and involve industry representatives either as visiting faculty members or as guest lecturers or seminar participants.

The performance of management institutes is similar to that of the all-institute average in other dimensions: the interaction between industry and faculty members in relation to training and other activities, industry support for institute infrastructure, research linkages and industry's involvement in institutes' boards of governors or advisory councils.

From a regional perspective, as shown in Figure 6, survey participants from the southern region achieved the highest average score, closely followed by participants from the eastern and northern regions. There was only a marginal difference in performance by management institutes in the southern and northern regions – whereas for engineering institutes the gap in performance was substantial (see Figure 4). Both the eastern and central regions performed considerably better in the management discipline than in engineering. Management institutes from the south central region recorded the lowest average online survey score.

6. Average scores across regions for all engineering subjects



DETAILED ANALYSIS: HIGH AND LOW-SCORING MANAGEMENT INSTITUTES

There were 137 survey responses from established management institutes. Our analysis is based on grouping institutes into three scoring bands: low, medium and high.

Banding definitions	% of respondents per band
High: 43.12 and above	21%
Medium: 13.28-43.12	60%
Low: Below 13.28	19%

What distinguishes high from low?

Industry involvement in the curricula of high-band institutes is particularly notable, with extensive industrial training being provided to students and extremely high levels of industry involvement as guest faculty members. Faculty interacts with industry both in the delivery and receipt of training. The majority of high-band institutes receive at least some financial support from industry towards the costs of their infrastructure. The majority also have high levels of industry membership on their board of governors or advisory councils.

Low-band institutes could do better in involving industry in their curricula, even in simple ways such as arranging industry visits for students. They also lag way behind high-band institutes in terms of the degree of interaction between faculty members and industry through training activities, in terms of funding support received and in industry participation in institute governance. Perhaps not surprisingly, students from low-band institutes are less likely to be offered jobs from campus.

High

Curriculum
- 90% of high-band institutes had more than 11 companies providing industrial training or internships
- 52% arranged more than six industry visits for students
- In 97% of institutes, visiting faculty from industry made up over 11% of the total faculty team
- In 70%, more than 15 guest lectures or seminars were conducted by industry representatives

Faculty
- 41% reported more than 30 man-days of programmes attended or trainings received by faculty from industry during 2012-13
- 52% provided more than 21 man-days of refresher courses to industry executives by faculty during 2012-13
- Even among high scorers, few had success in filing and being granted patents and other intellectual property rights: just one institute filed up to two IPRs and one institute had up to two IPRs granted.

Infrastructure
- 62% have at least one centre, unit or cell financially supported by industry
- 38% received a financial contribution from industry of at least 76% of unit expenditure

Research and consultation
- 62% had no contractual research projects assigned to the institute during 2012-13
- 86% made no technology transfers to industry during 2012-13
- However, 75% provided consultancy or advisory services to industry during 2012-13 (and 70% delivering between one and 10 assignments)

Placements
- High-band institutes performed particularly well: in 80% of institutes, more than 60% of students were offered jobs from campus during 2012-13
- In 86% of institutes, over 81% of companies with a stream- or specialization-specific job profile visited the campus
- In 86%, 1%-50% of students were offered jobs in specialization- or stream-specific companies in 2012-13

Governance
- 93% of institutes have more than six industry members on their board of governors or advisory councils
- In 24% of institutes, over 75% of industry members of the board of governors or advisory councils attend the meetings

Low

Curriculum
- 81% of low-band institutes had no industrial training or internships provided by companies
- 77% arranged no industry visits for students
- 81% had no visiting faculty members from industry
- In 77%, no industry guest lectures or seminars were conducted

Faculty
- One institute had up to 10 man-days of programmes attended or trainings received by faculty from industry during 2012-13
- One institute reported that 25%-50% of its faculty members provided training or lectures to industry during 2012-13
- Otherwise, no institutes reported other forms of industry-faculty interaction such as the filing or granting of intellectual property rights, or membership of industry boards or councils.

Infrastructure
- Only one institute has any centre, unit or cell financially supported by industry, but also reported receiving a financial contribution from industry of at least 76% of unit expenditure

Research and consultation
- No institutes had any contractual research projects assigned to them during 2012-13, and none made any technology transfers to industry
- One institute did provide consultancy or advisory services to industry during 2012-13

Placements
- 85% reported that less than 40% of their students were offered jobs from campus during 2012-13
- In 96%, less than 40% of companies visiting the campus had a stream- or specialization-specific job profile
- 23% reported that 1%-50% of students were offered jobs in specialization- or stream-specific companies in 2012-13

Governance
- 69% of institutes have at least one industry member on their board of governors or advisory councils
- In 92% of institutes, however, no industry members of the board of governors or advisory councils attend the meetings

PHARMACY AND ARCHITECTURE INSTITUTES

This year, universities and institutes providing education in the disciplines of architecture and pharmacy were invited to participate in the survey. Response rates were relatively low and detailed analysis by dimension or region is therefore not appropriate. Nevertheless, we offer some high-level findings which may be of interest to survey participants.

Pharmacy

Institutes offering training in pharmacy (of which 21 submitted data for the online survey) achieved mixed results across the dimensions addressed.

Industry involvement in institutes' curricula is relatively good, with 81% of respondents having at least one industry guest lecture or seminar being conducted. There is also some industry involvement in institutes' governance, with 72% of survey respondents having at least one industry member on their board of governors or advisory councils.

Institutes also score relatively well in terms of activity around student job placements. For 62% of institutes, more than 81% of companies visiting campus had a stream- or specialization-specific job profile. A third of institutes (33%) reported more than 40% of their students being offered jobs from campus during 2012-13.

Pharmacy institutes performed less well in terms of industry's involvement in their infrastructure. Although 38% have at least one centre, unit or cell receiving financial support from industry, 72% received a financial contribution for the unit of less than 10% of its costs.

Faculty members generally have limited interaction with industry. More than 70% report no programmes attended or trainings received by faculty from industry during 2012-13, nor any man-days of refresher courses provided by faculty to industry executives. However, pharmacy institutes are having some success in relation to patents: 20% filed at least one patent (or other intellectual property right) in 2012, with one institute filing more than six.

Performance was relatively poor in relation to involvement with industry in terms of research and consultancy. However, 43% of pharmacy institutes had more than one contractual research project assigned to them during 2012-13.

Architecture

Institutes offering training in the disciplines of architecture struggled to score in almost all parts of the online survey. There is, for example, relatively little financial support from industry for the infrastructure of the seven architecture institutes participating in the survey. Similarly, there is little interaction between faculty members and industry, little research-based activity involving industry, and limited activity in terms of helping students secure jobs.

However, in the dimension focused on industry's involvement in the curriculum, four out of seven institutes have at least one company providing industrial training or internships for students. Similarly, in the area of governance, four institutes have more than one industry member on their board of governors or advisory council.

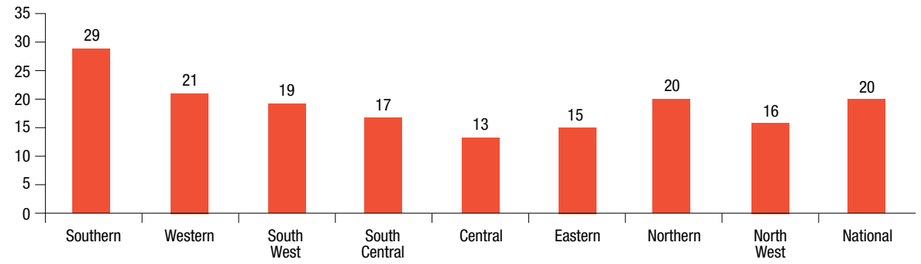
EMERGING INSTITUTES

Emerging engineering institutes

There were 165 survey responses from emerging engineering institutes.

As illustrated in Figure 7, emerging engineering institutes from the southern region achieved the highest average survey scores, some eight and nine points ahead of the western and northern regions respectively. Emerging engineering institutes from the central region achieved the lowest average survey scores.

7. Regional average scores for emerging engineering institutes

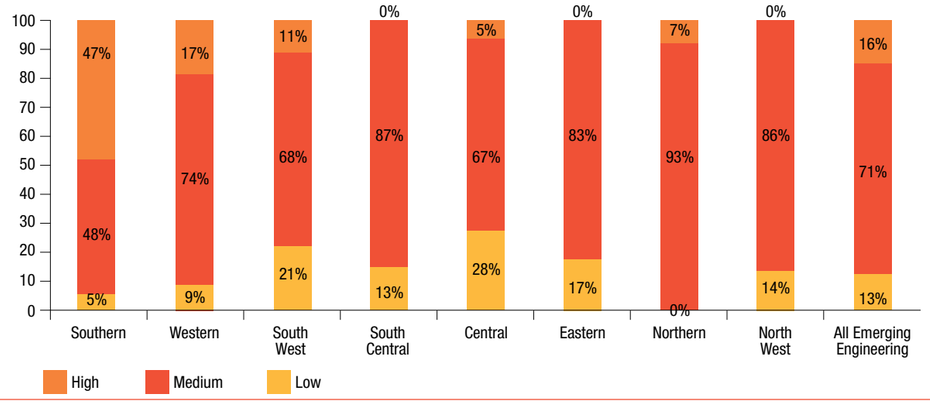


Regional performance by low, medium and high scoring bands is illustrated in Figure 8 below.

Banding definitions	% of respondents per band
High: 31.99 and above	16%
Medium: 8.36-31.99	71%
Low: below 8.36	13%

Almost half (47%) of participating institutes from the southern region are among those in the high scoring band. By contrast, the central region has the highest percentage of emerging engineering institutes falling in the low scoring band.

8. Regional average scores for emerging engineering institutes



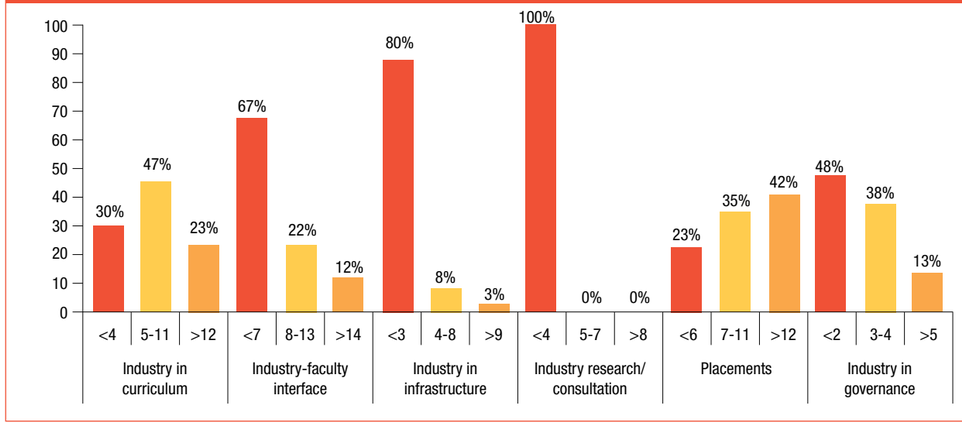
Emerging management institutes

There were 60 survey responses from emerging management institutes. Their overall performance by dimension is illustrated in Figure 9. This shows the percentage of institutes falling into groups based on their scores, or ratings, achieved in the online survey under each dimension. Note that the cut-off points for each group are different for each dimension, due to the different maximum scores attainable.

Emerging management institutes are performing particularly well in relation to the industry placements achieved by their students: 42% achieved a rating of 12 or more in the online survey.

The scores achieved by emerging institutes in relation to industry involvement in their curricula and the interaction between industry and faculty (for example through training activities) are also better than those typically achieved by institutes overall.

9. Distribution of ratings in each dimension across emerging management institutes



However, emerging management institutes are lagging behind the overall average when it comes to the involvement of industry in their infrastructure. Emerging management institutes appear less likely to receive financial contributions from industry towards the costs of their centres or units.

Like most survey participants, emerging management institutes struggle with industry linkages around research, being rarely contracted to conduct research for companies, for example.

What distinguishes high from low?

Additional analysis is based on grouping emerging management institutes into three scoring bands: low, medium and high.

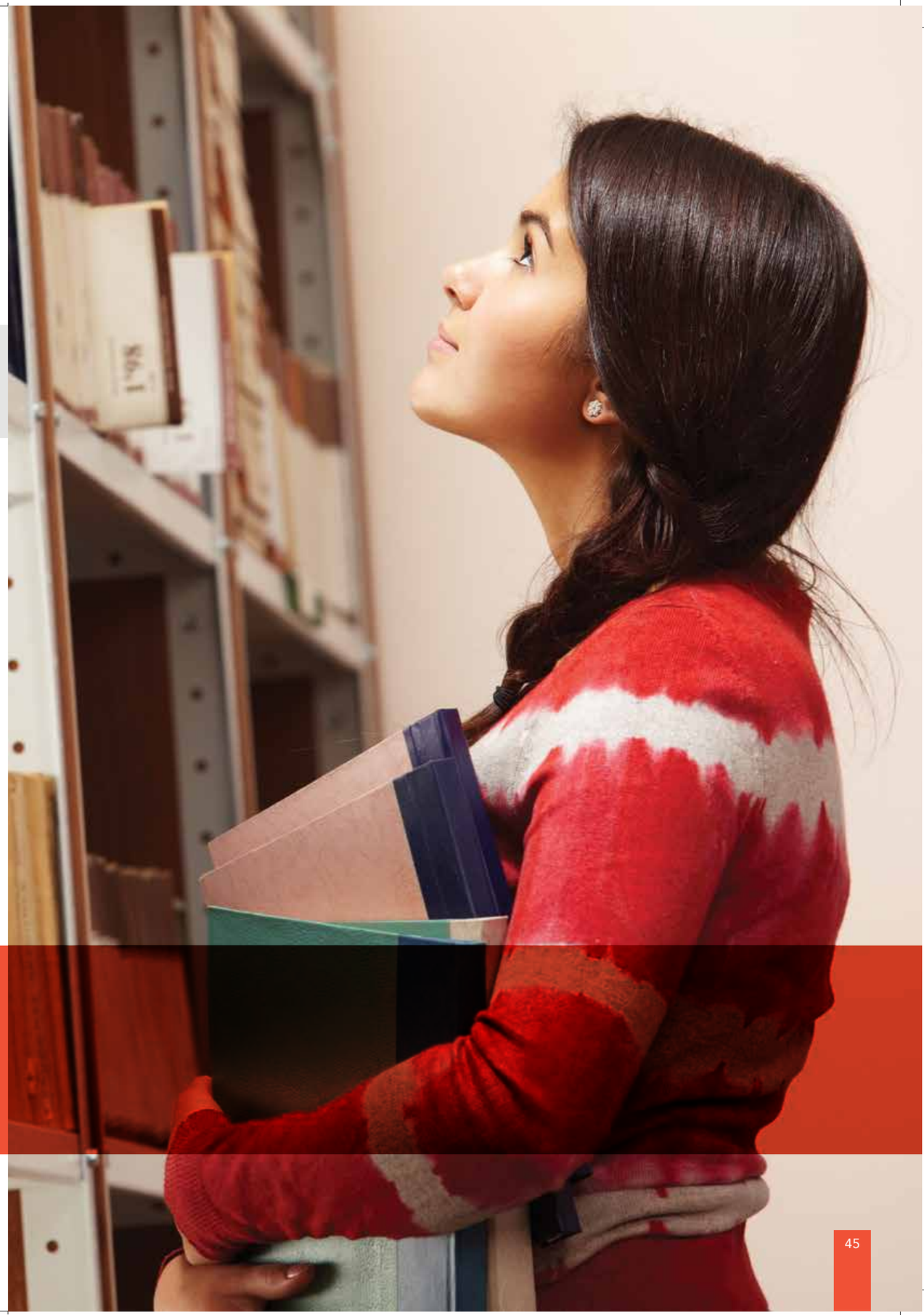
Banding definitions	% of respondents per band
High: 41.63 and above	18%
Medium: 12.73-41.63	62%
Low: below 12.73	20%

High-band institutes have substantially more industry linkages than low-band institutes in relation to their curricula. All high-band institutes reported more than 15 companies providing industrial training or internships for students, whereas 75% of low-band institutes had no such arrangements. In addition, 73% of high-band institutes arranged more than four industry visits for students, and in 82% of high-band institutes, visiting faculty from industry made up over 30% of the total faculty team. In 73%, more than 11 guest lectures or seminars were conducted by industry representatives.

There is also greater interaction between faculty and industry in high-band institutes, where 55% report more than 21 man-days of programmes attended or trainings received by faculty from industry in 2012-13.

High-band institutes receive greater support from industry for their infrastructure. Among high-band institutes, 64% receive financial support from industry for at least one centre, unit or cell, whereas no low-band institutes receive any such financial support.

Industry has greater involvement in the governance of high-band institutes. Almost three-quarters (73%) of high-band institutes have more than six industry members on their board of governors or advisory councils. High-band institutes also perform notably better in terms of achieving student placements in jobs. In 73% of high-band institutes, more than 60% of students were offered jobs from campus during 2012-13. In contrast, 83% of low-band institutes reported less than 40% of their students being offered jobs from campus.



4 JURY ASSESSMENTS AND CASE STUDIES

JURY ASSESSMENTS AND CASE STUDIES

A total of 10 members from academia and 10 from industry undertook visits to 39 institutes over a period of 13 days. This 13-day period included festivals of Dussehra and Eid-al-Adha during which most institutes normally remain closed for several days at a stretch. But this year, to complete the survey process within the given timeframe and to enable timely completion of this report, institutes were specially requested to facilitate spot visits of experts. In several instances, institutes were kept open even on Sundays to accommodate this part of the analysis.

This year the feedback from the visits was more on expected lines, with little variation between the objective scores and the general impression formed by the visiting team. Last year this difference was huge and the end picture was dramatically different from what it had appeared to be in the first stage. This points to the fact that the survey is succeeding in capturing the true picture of industry linkages from the very first stage.

The take-away from this year's results and the three-stage evaluation process has been that institutes are learning to deter from inflating facts and are largely sticking to truth. In few cases discrepancies were noticed in the information given by institutes in the online application and in the papers submitted later for evaluation. But that, the jury felt, could have been due to gaps in understanding of the true import of the question or what was expected to be filled in under a particular heading.

The top quartile of the shortlisted institutes in every category were visited and in several cases there was a photo-finish result. Case studies of some institutes which did not make it to the number one slot but were adjudged as institutes with potential for excellence are also included. Streams where there was a particularly close finish are noted below.

Winners of AICTE-CII survey for best industry-linked technical institutes 2013

Stream	Institute
Computer and IT Engineering	Sona College of Technology
Electronics and Communication Engineering	PSG College of Technology
Civil Engineering	Walchand Institute of Technology
Electrical Engineering	Kongu Engineering College
Chemical Engineering	ICT Mumbai
Management (Standard)	XLRI Jamshedpur
Mechanical Engineering	College of Engineering Pune
Pharmacy	Bombay College of Pharmacy

Close Competitors

Computer and IT Engineering: Sona College made it to the top slot on the basis of its strong network with stalwarts of the IT sector. A close competitor was Bannari Amman Institute of Technology.

Electrical Engineering: A close competitor in this category was the College of Engineering Pune, though Kongu Engineering College won on the strength of its Technology Business Incubator.

Chemical Engineering: The Institute of Chemical Technology (ICT) is a known and respected name in the field of chemical education and the award for it comes as no surprise, but a close competitor in this category was Central Institute of Plastic Engineering and Technology, Lucknow. This institute was the lone entrant in the category of petrochemicals engineering and the jury decided to include it for spot evaluation in the chemical engineering category based on its high objective score. It is a relatively new institute, established by the ministry of chemical and petrochemicals.

Mechanical Engineering: Just as ICT is synonymous with excellence in chemical engineering, College of Engineering Pune is synonymous with excellence in mechanical engineering. Hence it gains the award. However, a close competitor for this award for Sri Sai Ram Engineering College, which has good faculty strength and is doing good quality research.

CASE STUDIES

SONA COLLEGE OF TECHNOLOGY

Winner in Computer and IT Engineering

Sona College of Technology was founded in 1997 by M.S. Chockalingam, a textile expert and philanthropist, who had an abiding interest in professional education for industrial and economic growth of the country. The college is autonomous and is affiliated to Anna University. It is part of the Sona Group of companies which is headquartered in Bangalore and was incorporated in 1938. The group has interests in plantations, real estate, hydro power, textiles and electronics.

The college has a strong computer and IT department with 25 core faculty members for computer science and 28 for IT. Out of this at least 12 have PhDs. In the past, the department has successfully completed three research projects and three are on-going.

The departments have interactions with 54 companies at different levels. Industry is represented in academic bodies and faculty is on boards of companies. Tie-ups are in place with companies such as Cisco, Oracle, IBM and Infosys for project internships, industrial visits and in-plant training.

Sabbatical projects in industry have been done successfully by five faculty members who went to IBM and Infosys for training. Companies offer electives to students at this institute. For instance, Infosys offers electives such as Business Intelligence, Enterprise Resource Planning and Mobile Application Development.

Three patents were filed by the computer and IT departments. There are several centres of excellence of each department. The college is also part of the Technology Information, Forecasting and Assessment Council (Tifac) of the Department of Science and Technology (DST) and has started e-learning initiatives as part of Indian Space Research Organisation (Isro) and Amrita Vishwa Vidyapeetham.

PSG COLLEGE OF TECHNOLOGY

Winner in Electronics and Communications Engineering

PSG College of Technology is an autonomous, government aided, private engineering college in Peelamedu, Coimbatore. It is affiliated to Anna University of Technology, Coimbatore. The college was founded in 1951 by Dr.G.R. Damodaran, who served as first principal. It was the first private engineering institution to be established in Tamil Nadu.

The college was conferred autonomous status by the University of Madras in 1978, which was continued by the Bharathiar University and subsequently by Anna University, and from 2007 by Anna University of Technology, Coimbatore. Autonomous status enables the college to frame its own curricula, update syllabus and introduce new courses as and when needed. The college follows credit system for under-graduate courses and is empowered to have its own evaluation system. PSG is located in the same campus with the PSG Industrial Institute. The college has strong industry linkages and is among the few to have an industry attached to it. There is adequate representation of industry in the Board of Studies and there are 20 industry representatives on its advisory council.

The college has a student population of about 8,518 with 15 engineering and technology departments besides the computer applications, management sciences, basic sciences and humanities departments. The departments benefit from the expertise of visiting faculty and guest lecturers from industry, with 11 visiting faculty and eight guest lectures for the Electronics Engineering department in 2012-13 alone. Faculty training programs are organized in-house in which industry people are invited. Faculty members also attend training programs organized by industry to ensure updating of knowledge.

Students spend one to two weeks in industry for training. Final year students spend six months in industry for internship-cum-projects. Also, industrial visits of two to three days duration are organized for students.

Each department annually conducts at least one national / international conference / seminar / workshop for dissemination of latest technologies and research findings. On an average, five short-term programmes are conducted for teaching faculty from other colleges with funding from AICTE / ISTE and other agencies.

Industry has also come forward to support the college in many aspects including infrastructure. Several labs and facilities have been either set up by industry or the college has been provided funds for doing the same. In 2005 an open source software laboratory was set up in the institute. In 2006 the PSG - LAPP Centre for Excellence in Cable Technology was inaugurated. The same year a PSG-Infineon Embedded Systems Lab was set up. Other companies with which PSG has close partnerships are Agilent, SAP, Cognizant and Cordys.

The college maintains interaction with several R&D institutions and other institutions of higher learning in India and abroad, through institutional network programmes and collaborative research programmes. ***It also has links with industries in the fields of automotive, aerospace, defence, textile, machine tools, software development and consumer durables.***

PSG was selected by the Technology Information, Forecasting and Assessment Council (Tifac) of the Department of Science and Technology (DST) to set up a Centre of Relevance and Excellence in product design, optimization and collaborative product commerce. PSG Tifac Core was set up under public-private partnership model by Tifac, PSG College of Technology and Pricol Industries in 2001.

WALCHAND INSTITUTE OF TECHNOLOGY (WIT), SOLAPUR

Winner in Civil Engineering

Walchand Institute of Technology (WIT), Solapur, established in 1983, is the oldest engineering college in Solapur, India. WIT is managed by Shri Aillak Pannalal Digambar Jain Pathashala Trust. The institute is named after Seth Walchand Hirachand, one of the country's pioneers of industrial development. Seth Walchand promoted and established business ventures in core sectors like automobile, civil engineering, aircraft manufacturing, ship building, maritime shipping, hume pipes, construction of dams, bridges and tunnels and organised farming. The institute is affiliated to Solapur University and is approved by the AICTE.

Among the 37 industry members on its board of governors, 25 are in the advisory council, seven in governing body and five in statutory university bodies. The overall course design is impacted by the philosophy and experience of these industry professionals. WIT has a well laid out program for industry-institute interaction process; the students are encouraged to participate in industry-sponsored projects in all the branches, especially in civil engineering department, wherein they have an opportunity to have hands-on experience of testing and simulation. The interaction processes within the departments for acquisition and training on the latest software is extremely strong. That is mainly due to the domain expertise the institute has in civil engineering by way of government-funded projects. Walchandnagar Industries Limited (WIL) services several civil engineering-based state government projects and this industry back up has percolated into the course-structure, design and practical knowledge acquisition.

The institute has good in-house faculty. It organized 12 guest lectures in 2012-13 and has a matching number of visiting faculty for its civil engineering students. The faculty receives frequent training from industry. Their competency is evident from 38 trainings that they had provided to industry for civil engineering and 11 executive programs were attended by industry. Also, civil engineering faculty members are on the board of 11 companies.

As a testimony of their confidence in the skills and ability of the WIT, industry assigned 409 services to the institute including two technology transfers, 15 contractual research projects, 392 consultancy and advisory services in 2012-13. More than 10 infrastructure projects have been funded by industry to support course enhancements.

Civil engineering students of the institute did internships in 64 companies and they were sent to 17 companies for industrial visits. A total of 38 companies provide placements last year. The college has consistently achieved excellent results in university examinations.

KONGU ENGINEERING COLLEGE

Winner in Electrical Engineering

Kongu Engineering College is located in Erode district of Tamil Nadu. The word 'Kongu' refers to a region in Tamil Nadu and the term 'Kongu Vellalar' specially means agricultural community, predominantly based in the western region of the state, which was deprived of educational facilities till a few decades ago. To achieve technical excellence in such a backdrop, 41 philanthropists from different walks of life formed a Trust called 'The Kongu Vellalar Institute of Technology Trust' in 1983 to provide value-based education to people.

Affiliated to Anna University Chennai, the college has completed 28 years in the field of technical education. It became an autonomous university in 2009. The Department of Science and Technology (DST), Government of India, has sanctioned Rs 52.75 lakh for the institute for a three-year project titled 'Design and Development of Multilevel Inverters for Power Quality Improvement in Renewable Energy Sources'.

Kongu Engineering College (KEC) has 32 industry representatives on its board of governors. In line with international best practices, the college defines the outcome of every course on its website. For instance, students of Electrical Engineering can see what kind of qualities they will be expected to have at the end of three years.

The college has a strong placement cell which arranges campus interviews for placement of final year students and in-industry training. The cell also provides campus placement training to students. The achievements of this cell include student internship in 209 companies, 67 industrial visits and close to 70 companies offered final placements.

The faculty of the college is well-renowned in industry and academia alike. ***At least 50 executive programs provided by the faculty of KEC were attended by industry professionals as a testament to their confidence in the knowledge and competence of the faculty.*** The faculty also undergoes regular trainings from industry to keep them abreast with latest trends. As many as 63 faculty members were trained by industry on various skills in 2012-13.

KEC was assigned 72 services by the industry to undertake various research and advisory activities. The industry also provided funds for strengthening the infrastructure of the college.

In a unique initiative, the college has set up a Technology Incubator for entrepreneurs called TBC@KEC (Technology Business Incubator) in association with the Department of Science and Technology (DST). Though facilities for development of various industries like textiles, automobiles, poultry, construction, utility equipments etc., were available in the region, there was no facility for nurturing entrepreneurship

and product / service development in hi-tech electronics and ICT related areas. TBI@KEC fills this much needed gap. The small-time entrepreneurs as well as medium enterprises in the region are major beneficiaries of the support provided by TBI in terms of infrastructural facilities, mentoring, support and financial assistance to convert their ideas into commercial realities. Additionally, faculty and students of technical institutions are directly involved with entrepreneurs for product / service development. TBI also provides electronic repair and fabrication, reengineering and consultancy services. Incubated firms at TBI KEC have developed 14 products so far and four incubatees have received SEED fund support of Rs. 15 Lacs.

INSTITUTE OF CHEMICAL TECHNOLOGY

Winner in Chemical Engineering

The Institute of Chemical Technology was founded in 1933 as University Department of Chemical Technology (UDCT) of the University of Mumbai. Prof Robert Forster was first head of the Department (1933-38), followed by Prof K. Ventakaraman, who nurtured it and it was later taken to great heights by Prof Man Mohan Sharma. Mumbai University conferred the autonomous status on UDCT in 1994 with concurrence from the Maharashtra state government and the University Grants Commission. UDCT was renamed as the Mumbai University Institute of Chemical Technology (Autonomous) on 26 January 2002. In June 2004, in accordance with the Technical Education Quality Improvement Programme (TEQIP) of the Government of India, under which the institute was selected as a Lead Institution, the government of Maharashtra granted complete autonomy to the institute. On 12 September 2008, it was granted the deemed university status and renamed as the Institute of Chemical Technology (ICT).

ICT was first the institute to be pinned elite badge by the government of Maharashtra. This status puts the institute on a par with other reputed institutes such as the Indian Institute of Technology (IIT), Indian Institute of Science (IISc) Bangalore and the Indian Institute of Science Education and Research (IISER). It also makes the institute, which has plans to set up a satellite campus, eligible for various special grants from the Union and the state governments. ICT is considered to be best post-graduate center in India and is comparable to the best in the world.

The institute is working in the area of biotechnology, biomedicines, nanotechnology and materials, energy science and engineering, process system engineering, green technology and engineering, environmental protection and hazardous waste management, developing therapy strategies for incurable diseases and healthcare. The institute is working on several problems with industry. Four companies assigned contractual research to the institute and four companies sought its consultancy and advisory services in the past one year. About 15 faculty members are working on boards of companies and are also consultants to them. Many faculty members of the institute are on the editorial boards of international scientific and technical journals. Most of the faculty members are reviewers for international journals. There are about 47 endowment positions helping the institute attract best professionals from all over the world. ***In addition, the institute has 21 industry-sponsored endowment faculty chairs working as full-time faculty members of the institute.***

More than 700 ICT students are registered for PhD. All PhD scholars are financially supported by the institute through funding agencies / industry. Funded projects of about Rs 220 crore have been undertaken so far. ICT has about 191 patents sanctioned in its name and many applications are pending for the patent approvals from national and international bodies. Out of these, 15 patents have been filed in the past year alone. In April 2013 ICT inaugurated its entrepreneurship cell and a fellowship for visit to Korea was offered at this time.

XLRI, JAMSHEDPUR

Winner in Management

XLRI or Xavier School of Management is one of the oldest management institutes in India having been set up in 1949 by Father Quinn Enright in Jamshedpur, Jharkhand (earlier Bihar). The idea behind setting up the institute was to provide specialized training in human resource management to trade union leaders of iron and coal mines in the region. Accordingly, the original name of the institute was Xavier's Labour Relations Institute and the acronym stands till today.

Since Jamshedpur was created as the first planned industrial city of India by Jamshedji Nusserwanji Tata and the city has taken its name from the Tata patriarch, XLRI too owes its origin and genesis in no small measure to the Tata group. Among the 16 industry members on its board of governors there are several from the Tata Group, as also other companies, who contribute to the way teaching is imparted and courses designed.

Based on a sound industrial foundation, the institute has over the years established a name for itself which at times surpasses that of the government-run, premium Indian Institutes of Management (IIMs). XLRI is older than the oldest IIMs (IIM Ahmedabad and IIM Calcutta) by more than 10 years.

The institute has consistently scored highly in various surveys on one of the most critical parameters which determines the quality of education – faculty. ***With its faculty providing training to close to 60 companies, the respect that it commands in both industry and academia is well established.*** The fact that 275 of its executive programs were attended by various companies in 2012-13 is proof of the institute's reputation and credibility in industry circles. Seven of its faculty members are also on the boards of various companies, allowing a blend of educational philosophy and industrial technicality in their approach. XLRI boasts of one of the best student-faculty ratio among Indian B-schools, which is boosted by good number of visiting and guest faculties. The institute has 80 visiting faculty from top companies of the country. Also, it organized 33 guest lectures on various industrially relevant topics by professionals from reputed companies last year. Its students are encouraged to apply theoretical learning to real situations through case studies and real-life management challenges facing private, public and non-profit sectors of the economy.

The institute boasts of very high placements with some of the most enviable salaries paid to its students. Among various initiatives of the institute, the most unique is the E-cell – The Entrepreneurship Cell called Aarambh. The initiative of XLRI's Entrepreneurship Development Centre (EDC) is dedicated to the promotion of an entrepreneurial spirit among students. It aims to incubate business ideas by linking the right investors and mentors with the budding entrepreneurs of tomorrow.

XLRI has contributed its best to the professional growth and management of innumerable institutions that serve the public especially organized industry, labour, service agencies engaged in rural development, education, health and other public systems. Besides imparting world class curriculum, the institute focuses on developing managerial competence among the pupils through acquisition of specialized knowledge and skills.

COLLEGE OF ENGINEERING, PUNE

Winner in Mechanical Engineering

College of Engineering, Pune (CoEP) is an autonomous engineering college with an affiliation to the University of Pune. Established in 1854, it is the third oldest engineering college in Asia. The college was one of the first few colleges established by the British to serve the Indian subcontinent. The foundation stone of the new college was laid by the Governor, Sir Bartle Frere, who was to become the Vice-Chancellor of the University, on 5 August 1865.

In 2003, the institute was granted complete autonomy by the State Government of Maharashtra, thus giving it the freedom to set its own curriculum and manage its own finances. With permanent affiliation to the University of Pune, the institute now is an autonomous engineering school. This has been the biggest change as far as pedagogy at CoEP is concerned. The following years have seen a multitude of positive changes in administration and academic strategies. Many of these have been responsible for the growing innovation in project work of college students. The institute has leveraged this autonomy to exercise greater flexibility in dynamically changing its syllabus to suit the changing needs of the industry.

CoEP offers a unique learning experience across a spectrum of academic, social and industry sectors. The curriculum is designed to enhance the students' academic experience through internships, study abroad programmes and research facilities. The students of mechanical engineering were sent for six industrial visits in 2012-13. ***As many as 41 companies provided internship for mechanical engineering students alone.*** The hallmark of CoEP education is its strong and widespread alumni network, support of the industry and the camaraderie that the institute shares with several foreign universities. The institute is consistently ranked amongst the top 20 technical colleges in India and its alumni have a lion's share in the development of national infrastructure.

The college regularly organizes guest lectures from industry and has on board industry visiting faculty to teach specific topics and courses. The college faculty is much respected and 16 mechanical engineering faculty members provided training to industry last year.

As yet another proof of CoEP innovative bend of mind, the college filed for 11 patents in 2012-13 and one patent has already been granted. There are various clubs which impart technical knowledge in various fields which are run by students and co-ordinated by senior professors. The college has good relations with many manufacturing industries in and around Pune including Bajaj group, Tata Motors, Thermax, FIAT India and Kirloskar Oil Engines Limited, where students participate in various academic projects. Representatives from most of these companies are also on the board of governors of the college. The presence of several research laboratories including that of the Meteorological Survey of India, National Chemical Laboratory (NCL), National Centre for Radio Astronomy (NCRA), Inter-University Center for Astronomy and Astrophysics (IUCAA), Defence Research Development Organization (DRDO) and Center for Development of Advanced Computing (CDAC) provides students access to R&D facilities. In addition, the city is home to the growing software and hardware industry (mainly in Hinjewadi Infotech Park), thus enabling more students to pursue final-year projects in these industries.

A total of 29 infrastructure projects at CoEP are sponsored by industry. The college was also assigned four contractual research and 87 consultancy and advisory services by industry.

CASE STUDIES

BOMBAY COLLEGE OF PHARMACY

Winner in Pharmacy

One of the most potent proofs of an institute's industry linkage is the support that it acquires from the industry in all-round operations. Pharmacy is a key sector economically and socially. Industry participation in this sector not only promotes innovation but also provides avenues to implement it.

Bombay College of Pharmacy (BCP) is one of the leaders when it comes to industry participation. It was founded in 1957 by the Indian Pharmaceutical Association – Maharashtra State Branch (IPA-MSB) with financial assistance from the Government of Maharashtra and several pharmaceutical corporations. Since its inception as a college offering a Diploma in Pharmacy, the college has grown in stature and at present offers Bachelors, Masters, and Doctoral programs of study in Pharmaceutical Sciences. Out of all the colleges surveyed in the pharmacy domain, BCP displayed the most effective industry linkages.

Industry has shown keen interest in building the capabilities of the college for ensuring best infrastructure. ***Almost all the laboratories have been sponsored by reputed pharmaceutical companies.*** BCP has state-of-the-art equipment, instruments, internet facilities and an excellent library. It encourages and undertakes collaborative projects with industries and academia. The college has completed more than 300 industry-sponsored projects since its inception. The Department of Pharmaceutical Chemistry Research specializes in Computer Aided Drug Design (CADD) along with multi-dimensional NMR, and synthesis / process development of new or existing drugs. Both these departments have several pharmaceutical giants as their clients.

Several pharmaceutical corporations have been involved in the governance of the institute since its inception. At present there are 11 industry members on its Board of Governors. Being direct representatives of industry, they bring to the institute relevant curriculum inputs and guidance.

The students of BCP also undertake internships in various pharmaceutical companies to gain hands-on knowledge. The college has visiting faculty from industry and it organizes guest lectures to enable its students to interact with industry. The institute also has a placement cell and many of the BCP alumni now hold prominent positions in industry and academia both in India and abroad.

The college is affiliated to various professional bodies including Vividhlaxi Audyogik Samshodhan Vikas Kendra (VASVIK) and The Indian Pharmaceutical Association (IPA), which is the national professional body of pharmacists engaged in various facets of the profession of pharmacy. VASVIK is a multipurpose industrial research promotion center, founded in 1983, to contribute towards research and strengthen the efforts being made in the field of pharmacy. The college VASVIK research Wing comprises of departments such as Wockhardt Pharmaceutics Laboratory, Lupin Pharmacology Laboratory, Lyka Pharmacogonosy Laboratory and Pharmaceutical Chemistry Research Laboratory funded by Ministry of HRD Govt. of India.

CLOSE COMPETITORS

BANNARI AMMAN INSTITUTE OF TECHNOLOGY

Close competitor in Computer and IT Engineering

Bannari Amman Institute of Technology is backed by the large business conglomerate of Bannari Amman Group, which has expertise in sectors such as sugar, distillery, textiles, garments, agro-products, finance, automobile and transport. The close proximity of the institute, in Sathyamangalam, Erode district of Tamil Nadu, with group companies enables it to have easy access to their industrial units. The students enjoy the benefit of getting hands-on experience in professional environment.

Set up in 1991 by Dr S V Balasubramaniam, the institute has a flexible curriculum and it can be reviewed and updated by the relevant department's Board of Studies. Industry experts are involved in curriculum updates and ensure that the curriculum remains relevant and futuristic in all respects. With a strong industry presence of 93 industry personnel, on the college board of governance, the industrial viewpoint in every aspect becomes inevitable. Six of these members are in the Advisory Council, 17 in Governing Body and 70 in statutory university bodies.

Five faculty members in the Computer & IT Engineering department, out of a core of 34 and four in Biotechnology departments have industry experience. The faculty goes through frequent trainings from industry to get acquainted with recent trends. Five visiting faculty from industry for Computer & IT Engineering are engaged in teaching full courses. Forty visiting faculty for Computer & IT Engineering and one for Biotechnology were invited for giving guest lectures on issues pertinent to the industry.

Significant industry partnerships in computer and IT are with Sun Microsystems, Oracle, Tata Consultancy, Infosys, Lancesoft India and Cognizant. In Biotechnology, six short-duration group mini projects were assigned to students with industry support. Final projects of three-month duration for B.Tech students and six months for M.Tech were assigned with industry support. In computer and IT engineering, a short-duration group project was assigned to each student with industry support. A total of 21 companies were involved in this initiative.

The college has a robust placement cell to help their students secure gainful employment opportunities. With a placement of 93.29% for computer and IT engineering students and 75.5% for Biotechnology students, the college enjoys a good reputation with recruiters mainly due to their skill-based approach to learning.

SRI SAI RAM ENGINEERING COLLEGE

Close competitor in Mechanical Engineering

Sri Sai Ram Engineering College, Chennai, was established in the year 1995 by industrialist MJF Ln. Leo Muthu who is the Chairman of Sapthagiri Educational Trust. The institute is affiliated to Anna University. It has established a lead in mechanical engineering on the basis of its strong faculty. There are 34 members in this department, of which seven have PhD and more than 10 are doing research. They are on the board of governors of four companies. Among other projects, they are working on a bio-fuel research laboratory and have authored several books. They bagged one patent last year and have got several assignments from the automobile industry.

Among the 16 industry members on its board of governors, eight are in advisory council, four in governing body and four in standing committee. To increase interaction between students and industry professionals, the institute organized 10 guest lectures where industry personnel shared best practices and experiences with the students. The college also has seven visiting faculty in mechanical engineering imparting various courses.

Their faculty receives frequent training from industry. They also provide training to companies and 16 of their executive programs were attended by industry professionals last year.

Industry assigned 59 services to the institute.

The students of the institute were provided internship by 33 companies in mechanical engineering. Also, to provide the students an insight into the operations of a company, 12 industry visits were conducted.

APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

The category column indicates the relative score achieved by the institute in that subject stream: 3 = High, 2 = Medium, 1 = Low. Banding definitions are provided in the report for the relevant subject streams.

For some institutes, this comparative analysis was not possible due to the relatively small number of survey participants in that subject area. These are identified in the listing as follows: N/A = No category assigned.

The scores were computer-generated, first-cut markings based on data entered by the institutes themselves. These are therefore indicators of the extent of the industry linkages that exist, but should not be interpreted as providing the final result. (See Part 2: Methodology for more detail on how the scores were assessed and interpreted.)

It is notable that some respected institutes achieved a relatively low score because they did not provide comprehensive detail when entering survey data. This could be due a number of factors: institutes with an established name in their respective fields may not have felt the need to make the effort to collect the data required; they may not have understood the questions correctly; or they may not have had time to collect the data required.

Institute name	State	AICTE region	Subject Stream	Category
BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	All other disciplines	3
D.K.T.E. SOCIETY'S TEXTILE & ENGINEERING INSTITUTE	Maharashtra	Western	All other disciplines	3
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	All other disciplines	3
COLLEGE OF ENGINEERING, PUNE	Maharashtra	Western	All other disciplines	3
KONGU ENGINEERING COLLEGE	Tamil Nadu	Southern	All other disciplines	3
KUMARAGURU COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	All other disciplines	3
INSTITUTE OF CHEMICAL TECHNOLOGY	Maharashtra	Western	All other disciplines	3
DR.MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	All other disciplines	3
VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	All other disciplines	2
SAINTGITS COLLEGE OF ENGINEERING	Kerala	South West	All other disciplines	2
MANIPAL INSTITUTE OF TECHNOLOGY	Karnataka	South West	All other disciplines	2
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	All other disciplines	2
ERODE SENGUNTHAR ENGINEERING COLLEGE	Tamil Nadu	Southern	All other disciplines	2
K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	All other disciplines	2
SHRI VAISHNAV INSTITUTE OF TECHNOLOGY & SCIENCE,	Madhya Pradesh	Central	All other disciplines	2
ACHARYA INSTITUTE OF TECHNOLOGY	Karnataka	South West	All other disciplines	2
SETHU INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	All other disciplines	2
INDO GERMAN TOOL ROOM	Gujarat	Central	All other disciplines	2

*Names are given in alphabetical order

APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
INDO DANISH TOOL ROOM	Jharkhand	Eastern	All other disciplines	2
TEZPUR UNIVERSITY	Assam	Eastern	All other disciplines	2
BAPATLA ENGINEERING COLLEGE	Andhra Pradesh	South Central	All other disciplines	2
B V BHOOMARADDI COLLEGE OF ENGINEERING & TECHNOLOGY	Karnataka	South West	All other disciplines	2
DON BOSCO INSTITUTE OF TECHNOLOGY	Karnataka	South West	All other disciplines	2
PGP COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	All other disciplines	2
SHREE N M GOPANI POLYTECHNIC INSTITUTE	Gujarat	Central	All other disciplines	2
PES INSTITUTE OF TECHNOLOGY	Karnataka	South West	All other disciplines	2
IIMT ENGINEERING COLLEGE	Uttar Pradesh	Northern	All other disciplines	2
L. D. COLLEGE OF ENGINEERING	Gujarat	Central	All other disciplines	2
GOVERNMENT WOMEN'S POLYTECHNIC COLLEGE BHOPAL	Madhya Pradesh	Central	All other disciplines	2
ROLAND INSTITUTE OF TECHNOLOGY	Orissa	Eastern	All other disciplines	2
UNIVERSITY COLLEGE OF TECHNOLOGY	Andhra Pradesh	South Central	All other disciplines	2
ROEVER ENGINEERING COLLEGE	Tamil Nadu	Southern	All other disciplines	2
G.NARAYANAMMA INSTITUTE OF TECHNOLOGY & SCIENCE, FOR WOMEN	Andhra Pradesh	South Central	All other disciplines	2
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE	Andhra Pradesh	South Central	All other disciplines	2
VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE	Maharashtra	Western	All other disciplines	2
INSTITUTE OF AERONAUTICAL ENGINEERING	Andhra Pradesh	South Central	All other disciplines	2
JSS ACADEMY OF TECHNICAL EDUCATION	Uttar Pradesh	Northern	All other disciplines	2
NMAM INSTITUTE OF TECHNOLOGY, NITTE	Karnataka	South West	All other disciplines	2
ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES	Andhra Pradesh	South Central	All other disciplines	2
GOVERNMENT COLLEGE OF ENGINEERING, CHANDRAPUR	Maharashtra	Western	All other disciplines	2
GOVERNMENT ENGINEERING COLLEGE CHANDKHEDA	Gujarat	Central	All other disciplines	2
BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT	Karnataka	South West	All other disciplines	1
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	All other disciplines	1
DR. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY	Andaman and Nicobar Islands	Eastern	All other disciplines	1
G H PATEL COLLEGE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	All other disciplines	1

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
LUKHDHIRJI ENGINEERING COLLEGE	Gujarat	Central	All other disciplines	1
NEOTIA INSTITUTE OF TECHNOLOGY, MANAGEMENT AND SCIENCE	West Bengal	Eastern	All other disciplines	1
PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY , DINDIGUL	Tamil Nadu	Southern	Bio technology	3
BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Bio technology	3
ACHARYA INSTITUTE OF TECHNOLOGY	Karnataka	South West	Bio technology	3
PSG COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Bio technology	3
AMBALA COLLEGE OF ENGINEERING & APPLIED RESEARCH	Haryana	North West	Bio technology	3
RAJALAKSHMI ENGINEERING COLLEGE (ENGINEERING & TECHNOLOGY)	Tamil Nadu	Southern	Bio technology	3
SRI VENKATESWARA COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Bio technology	2
KUMARAGURU COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Bio technology	2
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	Bio technology	2
B V BHOOMARADDI COLLEGE OF ENGINEERING & TECHNOLOGY	Karnataka	South West	Bio technology	2
PES INSTITUTE OF TECHNOLOGY	Karnataka	South West	Bio technology	2
THAPAR UNIVERSITY	Punjab	North West	Bio technology	2
K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Bio technology	2
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	Bio technology	2
NMAM INSTITUTE OF TECHNOLOGY, NITTE	Karnataka	South West	Bio technology	2
MANIPAL INSTITUTE OF TECHNOLOGY	Karnataka	South West	Bio technology	2
ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES	Andhra Pradesh	South Central	Bio technology	2
BEANT COLLEGE OF ENGINEERING & TECHNOLOGY, GURDASPUR	Punjab	North West	Bio technology	2
MODEL ENGINEERING COLLEGE	Kerala	South West	Bio technology	2
BAPATLA ENGINEERING COLLEGE	Andhra Pradesh	South Central	Bio technology	2
INSTITUTE OF CHEMICAL TECHNOLOGY	Maharashtra	Western	Bio technology	2
UNIVERSITY COLLEGE OF TECHNOLOGY	Andhra Pradesh	South Central	Bio technology	2
BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT	Karnataka	South West	Bio technology	1
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Bio technology	1
NEOTIA INSTITUTE OF TECHNOLOGY, MANAGEMENT AND SCIENCE	West Bengal	Eastern	Bio technology	1

*Names are given in alphabetical order

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
ERODE SENGUNTHAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Chemical engineering	3
KONGU ENGINEERING COLLEGE	Tamil Nadu	Southern	Chemical engineering	2
INSTITUTE OF CHEMICAL TECHNOLOGY	Maharashtra	Western	Chemical engineering	2
VEL TECH HIGH TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE	Tamil Nadu	Southern	Chemical engineering	2
MANIPAL INSTITUTE OF TECHNOLOGY	Karnataka	South West	Chemical engineering	2
BHARATI VIDYAPEETH DEEMED UNIVERSITY COLLEGE OF ENGINEERING	Maharashtra	Western	Chemical engineering	2
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	Chemical engineering	2
SRI VENKATESWARA COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Chemical engineering	2
ADHIPARASAKTHI ENGINEERING COLLEGE	Tamil Nadu	Southern	Chemical engineering	2
UNIVERSITY COLLEGE OF TECHNOLOGY	Andhra Pradesh	South Central	Chemical engineering	2
L. D. COLLEGE OF ENGINEERING	Gujarat	Central	Chemical engineering	2
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	Chemical engineering	2
THAPAR UNIVERSITY	Punjab	North West	Chemical engineering	2
BAPATLA ENGINEERING COLLEGE	Andhra Pradesh	South Central	Chemical engineering	2
G H PATEL COLLEGE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Chemical engineering	2
BHARATI VIDYAPEETH COLLEGE OF ENGINEERING, NAVI MUMBAI	Maharashtra	Western	Chemical engineering	2
BEANT COLLEGE OF ENGINEERING & TECHNOLOGY,GURDASPUR	Punjab	North West	Chemical engineering	2
TEZPUR UNIVERSITY	Assam	Eastern	Chemical engineering	2
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Chemical engineering	1
GOVERNMENT ENGINEERING COLLEGE CHANDKHEDA	Gujarat	Central	Chemical engineering	1
LUKHDHIRJI ENGINEERING COLLEGE	Gujarat	Central	Chemical engineering	1
INSTITUTE OF CHEMICAL TECHNOLOGY	Maharashtra	Western	Food & Agriculture	2
TEZPUR UNIVERSITY	Assam	Eastern	Food & Agriculture	2
UNIVERSITY COLLEGE OF TECHNOLOGY	Andhra Pradesh	South Central	Food & Agriculture	2
COLLEGE OF ENGINEERING, PUNE	Maharashtra	Western	Mining & Metallurgy	3
PSG COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Mining & Metallurgy	3
GOVERNMENT ENGINEERING COLLEGE BILASPUR	Chhattisgarh	Central	Mining & Metallurgy	2
GOVT. ENGG. COLLEGE, JAGDALPUR, BASTAR, CHHATTISGARH	Chhattisgarh	Central	Mining & Metallurgy	1
WALCHAND INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Civil Engineering	3
COLLEGE OF ENGINEERING, PUNE	Maharashtra	Western	Civil Engineering	3
KUMARAGURU COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	3
PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY, DINDIGUL	Tamil Nadu	Southern	Civil Engineering	3
PSG COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	3
ERODE SENGUNTHAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Civil Engineering	3
BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	3
R.M.K. ENGINEERING COLLEGE	Tamil Nadu	Southern	Civil Engineering	3
KONGU ENGINEERING COLLEGE	Tamil Nadu	Southern	Civil Engineering	3
MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE	Tamil Nadu	Southern	Civil Engineering	3
DR.MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	3
PANIMALAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Civil Engineering	3
PROF. RAM MEGHE INSTITUTE OF TECHNOLOGY AND RESEARCH	Maharashtra	Western	Civil Engineering	3
UNITED COLLEGE OF ENGINEERING & RESEARCH	Uttar Pradesh	Northern	Civil Engineering	2
SONA COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	2
KASEGAON EDUCATION SOCIETYS RAJARAMBAPU INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Civil Engineering	2
G. H. RAISONI COLLEGE OF ENGINEERING, NAGPUR.	Maharashtra	Western	Civil Engineering	2
PAAVAI ENGINEERING COLLEGE	Tamil Nadu	Southern	Civil Engineering	2
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	Civil Engineering	2
SAINTGITS COLLEGE OF ENGINEERING	Kerala	South West	Civil Engineering	2
VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Civil Engineering	2
V.R.S. COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	2
MANIPAL INSTITUTE OF TECHNOLOGY	Karnataka	South West	Civil Engineering	2
ACHARYA INSTITUTE OF TECHNOLOGY	Karnataka	South West	Civil Engineering	2

*Names are given in alphabetical order

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APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
VELAMMAL ENGINEERING COLLEGE (ENGG. & TECH)	Tamil Nadu	Southern	Civil Engineering	2
SARDAR PATEL COLLEGE OF ENGINEERING	Maharashtra	Western	Civil Engineering	2
INDO GLOBAL COLLEGE OF ENGINEERING	Punjab	North West	Civil Engineering	2
VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY	Maharashtra	Western	Civil Engineering	2
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE	Andhra Pradesh	South Central	Civil Engineering	2
BHARATI VIDYAPEETH DEEMED UNIVERSITY COLLEGE OF ENGINEERING	Maharashtra	Western	Civil Engineering	2
TEZPUR UNIVERSITY	Assam	Eastern	Civil Engineering	2
IIMT ENGINEERING COLLEGE	Uttar Pradesh	Northern	Civil Engineering	2
PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Civil Engineering	2
SREE VIDYANIKETHAN ENGINEERING COLLEGE	Andhra Pradesh	South Central	Civil Engineering	2
COLLEGE OF ENGINEERING TRIVANDRUM	Kerala	South West	Civil Engineering	2
SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT, RAMDEO TEKDI, GITTIKHADAN, KATOL ROAD, NAGPUR	Maharashtra	Western	Civil Engineering	2
SETHU INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	2
JODHPUR INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Civil Engineering	2
VEL TECH HIGH TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE	Tamil Nadu	Southern	Civil Engineering	2
BAPATLA ENGINEERING COLLEGE	Andhra Pradesh	South Central	Civil Engineering	2
THAPAR UNIVERSITY	Punjab	North West	Civil Engineering	2
JAWAHARLAL INSTITUTE OF TECHNOLOGY, BORAWAN	Madhya Pradesh	Central	Civil Engineering	2
L. D. COLLEGE OF ENGINEERING	Gujarat	Central	Civil Engineering	2
K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	2
YESHWANTRAO CHAVAN COLLEGE OF ENGINEERING	Maharashtra	Western	Civil Engineering	2
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	Civil Engineering	2
ADHIPARASAKTHI ENGINEERING COLLEGE	Tamil Nadu	Southern	Civil Engineering	2
SANKALCHAND PATEL COLLEGE OF ENGINEERING, VISNAGAR	Gujarat	Central	Civil Engineering	2
ROEVER ENGINEERING COLLEGE	Tamil Nadu	Southern	Civil Engineering	2

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY	Kerala	South West	Civil Engineering	2
C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	2
VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE	Maharashtra	Western	Civil Engineering	2
BIRBHUM INSTITUTE OF ENGINEERING & TECHNOLOGY	West Bengal	Eastern	Civil Engineering	2
SRI SAI COLLEGE OF ENGG. & TECH	Punjab	North West	Civil Engineering	2
SRI VENKATESWARA COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Civil Engineering	2
ROLAND INSTITUTE OF TECHNOLOGY	Orissa	Eastern	Civil Engineering	2
B V BHOOMARADDI COLLEGE OF ENGINEERING & TECHNOLOGY	Karnataka	South West	Civil Engineering	2
KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK	Maharashtra	Western	Civil Engineering	2
AJAY KUMAR GARG ENGINEERING COLLEGE	Uttar Pradesh	Northern	Civil Engineering	2
DR. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY	Andaman and Nicobar Islands	Eastern	Civil Engineering	2
INSTITUTE OF AERONAUTICAL ENGINEERING	Andhra Pradesh	South Central	Civil Engineering	2
SWAMI SACHCHIDANAND POLYTECHNIC COLLEGE	Gujarat	Central	Civil Engineering	2
MUSALIAR COLLEGE OF ENGINEERING AND TECHNOLOGY PATHANAMTHITTA	Kerala	South West	Civil Engineering	2
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Civil Engineering	2
ABHINAV HI-TECH COLLEGE OF ENGINEERING	Andhra Pradesh	South Central	Civil Engineering	2
PGP COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Civil Engineering	2
AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Civil Engineering	2
JSS ACADEMY OF TECHNICAL EDUCATION	Uttar Pradesh	Northern	Civil Engineering	2
RIMT-INSTITUTE OF ENGINEERING AND TECHNOLOGY	Punjab	North West	Civil Engineering	2
SARADA INSTITUTE OF SCIENCE TECHNOLOGY AND MANAGEMENT	Andhra Pradesh	South Central	Civil Engineering	1
SRI VENKATESHWARA COLLEGE OF ENGINEERING	Karnataka	South West	Civil Engineering	1
NMAM INSTITUTE OF TECHNOLOGY, NITTE	Karnataka	South West	Civil Engineering	1
RAJIV GANDHI INSTITUTE OF TECHNOLOGY,KOTTAYAM	Kerala	South West	Civil Engineering	1
COLLEGE OF ENGINEERING TRIKARIPUR	Kerala	South West	Civil Engineering	1

*Names are given in alphabetical order

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
GOVERNMENT ENGINEERING COLLEGE BILASPUR	Chhattisgarh	Central	Civil Engineering	1
GOVT. ENGG. COLLEGE, JAGDALPUR, BASTAR, CHHATTISGARH	Chhattisgarh	Central	Civil Engineering	1
GOVERNMENT ENGINEERING COLLEGE CHANDKHEDA	Gujarat	Central	Civil Engineering	1
LUKHDHIRJI ENGINEERING COLLEGE	Gujarat	Central	Civil Engineering	1
SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY	Kerala	South West	Civil Engineering	1
ACHARYA INSTITUTE OF TECHNOLOGY	Karnataka	South West	Computer & IT	3
PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY , DINDIGUL	Tamil Nadu	Southern	Computer & IT	3
S.A.ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	3
R.M.K. ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	3
M.KUMARASAMY COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Computer & IT	3
RAJALAKSHMI ENGINEERING COLLEGE (ENGINEERING & TECHNOLOGY)	Tamil Nadu	Southern	Computer & IT	3
KONGU ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	3
BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	3
SONA COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	3
WALCHAND INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Computer & IT	3
COLLEGE OF ENGINEERING, PUNE	Maharashtra	Western	Computer & IT	3
VEL TECH MULTI TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	3
INDO GLOBAL COLLEGE OF ENGINEERING	Punjab	North West	Computer & IT	3
DRONACHARYA COLLEGE OF ENGINEERING	Haryana	North West	Computer & IT	3
PAAVAI ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	3
PSG COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	3
THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY	Maharashtra	Western	Computer & IT	3
SRI SAI RAM ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	3
L&T INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Computer & IT	3
KUMARAGURU COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	3

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	Computer & IT	3
MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	3
PANIMALAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	3
DR.MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	3
PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Computer & IT	2
R.M.D. ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	2
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	Rajasthan	North West	Computer & IT	2
AJAY KUMAR GARG ENGINEERING COLLEGE	Uttar Pradesh	Northern	Computer & IT	2
CHANDIGARH ENGINEERING COLLEGE	Punjab	North West	Computer & IT	2
PES INSTITUTE OF TECHNOLOGY	Karnataka	South West	Computer & IT	2
JODHPUR INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Computer & IT	2
MANIPAL INSTITUTE OF TECHNOLOGY	Karnataka	South West	Computer & IT	2
ERODE SENGUNTHAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	2
SETHU INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	2
C.V.RAMAN COLLEGE OF ENGINEERING	Orissa	Eastern	Computer & IT	2
SRI VENKATESWARA COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Computer & IT	2
ABES ENGINEERING COLLEGE	Uttar Pradesh	Northern	Computer & IT	2
VELAMMAL ENGINEERING COLLEGE (ENGG. & TECH)	Tamil Nadu	Southern	Computer & IT	2
INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY BANGALORE	Karnataka	South West	Computer & IT	2
SHRI RAM MURTI SMARAK COLLEGE OF ENGINEERING & TECHNOLOGY, BAREILLY	Uttar Pradesh	Northern	Computer & IT	2
SAINTGITS COLLEGE OF ENGINEERING	Kerala	South West	Computer & IT	2
CHITKARA INSTITUTE OF ENGINEERING & TECHNOLOGY	Punjab	North West	Computer & IT	2
AMBALA COLLEGE OF ENGINEERING & APPLIED RESEARCH	Haryana	North West	Computer & IT	2
ARMY INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Computer & IT	2
VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Computer & IT	2

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Institute name	State	AICTE region	Subject Stream	Category
B. P. PODDAR INSTITUTE OF MANAGEMENT & TECHNOLOGY	West Bengal	Eastern	Computer & IT	2
G. H. RAISONI COLLEGE OF ENGINEERING, NAGPUR.	Maharashtra	Western	Computer & IT	2
VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY	Maharashtra	Western	Computer & IT	2
UNITED COLLEGE OF ENGINEERING & RESEARCH	Uttar Pradesh	Northern	Computer & IT	2
MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY	Delhi	North West	Computer & IT	2
D.K.T.E. SOCIETY'S TEXTILE & ENGINEERING INSTITUTE	Maharashtra	Western	Computer & IT	2
SAVEETHA ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	2
MODEL ENGINEERING COLLEGE	Kerala	South West	Computer & IT	2
BHARATI VIDYAPEETH DEEMED UNIVERSITY COLLEGE OF ENGINEERING	Maharashtra	Western	Computer & IT	2
ST. FRANCIS INSTITUTE OF TECHNOLOGY (ENGG. COLLEGE)	Maharashtra	Western	Computer & IT	2
ROLAND INSTITUTE OF TECHNOLOGY	Orissa	Eastern	Computer & IT	2
K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	2
V.R.S. COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	2
AMITY SCHOOL OF ENGINEERING & TECHNOLOGY	Delhi	North West	Computer & IT	2
SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS	Punjab	North West	Computer & IT	2
SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT, RAMDEO TEKDI, GITTIKHADAN, KATOL ROAD, NAGPUR	Maharashtra	Western	Computer & IT	2
SREE VIDYANIKETHAN ENGINEERING COLLEGE	Andhra Pradesh	South Central	Computer & IT	2
B V BHOOMARADDI COLLEGE OF ENGINEERING & TECHNOLOGY	Karnataka	South West	Computer & IT	2
C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	2
G.NARAYANAMMA INSTITUTE OF TECHNOLOGY & SCIENCE, FOR WOMEN	Andhra Pradesh	South Central	Computer & IT	2
KASEGAON EDUCATION SOCIETYS RAJARAMBAPU INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Computer & IT	2
SHRI VAISHNAV INSTITUTE OF TECHNOLOGY & SCIENCE,	Madhya Pradesh	Central	Computer & IT	2
JSS ACADEMY OF TECHNICAL EDUCATION	Uttar Pradesh	Northern	Computer & IT	2
NMAM INSTITUTE OF TECHNOLOGY, NITTE	Karnataka	South West	Computer & IT	2
RIMT-INSTITUTE OF ENGINEERING AND TECHNOLOGY	Punjab	North West	Computer & IT	2

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES	Andhra Pradesh	South Central	Computer & IT	2
YESHWANTRAO CHAVAN COLLEGE OF ENGINEERING	Maharashtra	Western	Computer & IT	2
INSTITUTE OF ENGINEERING & MANAGEMENT	West Bengal	Eastern	Computer & IT	2
MUTHAYAMMAL ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	2
VIDYAVARDHAKA COLLEGE OF ENGINEERING	Karnataka	South West	Computer & IT	2
SRI SAI COLLEGE OF ENGG. & TECH	Punjab	North West	Computer & IT	2
ADHIPARASAKTHI ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	2
THAPAR UNIVERSITY	Punjab	North West	Computer & IT	2
ADI SHANKARA INSTITUTE OF ENGINEERING AND TECHNOLOGY	Kerala	South West	Computer & IT	2
ABHINAV HI-TECH COLLEGE OF ENGINEERING	Andhra Pradesh	South Central	Computer & IT	2
PATEL COLLEGE OF SCIENCE & TECHNOLOGY	Madhya Pradesh	Central	Computer & IT	2
SARADA INSTITUTE OF SCIENCE TECHNOLOGY AND MANAGEMENT	Andhra Pradesh	South Central	Computer & IT	2
FRANCIS XAVIER ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	2
BAPATLA ENGINEERING COLLEGE	Andhra Pradesh	South Central	Computer & IT	2
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY	Kerala	South West	Computer & IT	2
H.V.P.MANDAL'S COLLEGE OF ENGINEERING & TECHNOLOGY	Maharashtra	Western	Computer & IT	2
IIMT ENGINEERING COLLEGE	Uttar Pradesh	Northern	Computer & IT	2
PGP COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Computer & IT	2
G H PATEL COLLEGE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Computer & IT	2
DON BOSCO INSTITUTE OF TECHNOLOGY	Karnataka	South West	Computer & IT	2
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	Computer & IT	2
BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT	Karnataka	South West	Computer & IT	2
SRI VENKATESA PERUMAL COLLEGE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Computer & IT	2
SRI VENKATESHWARA COLLEGE OF ENGINEERING	Karnataka	South West	Computer & IT	2
JAWAHARLAL INSTITUTE OF TECHNOLOGY, BORAWAN	Madhya Pradesh	Central	Computer & IT	2

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APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
BHARATI VIDYAPEETH COLLEGE OF ENGINEERING, NAVI MUMBAI	Maharashtra	Western	Computer & IT	2
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE	Andhra Pradesh	South Central	Computer & IT	2
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Computer & IT	2
BIRBHUM INSTITUTE OF ENGINEERING & TECHNOLOGY	West Bengal	Eastern	Computer & IT	2
SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY	Kerala	South West	Computer & IT	2
BEANT COLLEGE OF ENGINEERING & TECHNOLOGY,GURDASPUR	Punjab	North West	Computer & IT	2
SHANKARA INSTITUTE OF TECHNOLOGY	Rajasthan	North West	Computer & IT	1
ROEVER ENGINEERING COLLEGE	Tamil Nadu	Southern	Computer & IT	1
ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S INSTITUTE OF INFORMATION TECHNOLOGY	Maharashtra	Western	Computer & IT	1
VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE	Maharashtra	Western	Computer & IT	1
TEZPUR UNIVERSITY	Assam	Eastern	Computer & IT	1
NEOTIA INSTITUTE OF TECHNOLOGY ,MANAGEMENT AND SCIENCE	West Bengal	Eastern	Computer & IT	1
L. D. COLLEGE OF ENGINEERING	Gujarat	Central	Computer & IT	1
POORNIMA COLLEGE OF ENGINEERING	Rajasthan	North West	Computer & IT	1
SANKALCHAND PATEL COLLEGE OF ENGINEERING, VISNAGAR	Gujarat	Central	Computer & IT	1
A.D.PATEL INSTITUTE OF TECHNOLOGY	Gujarat	Central	Computer & IT	1
ENGINEERING COLLEGE, AJMER	Rajasthan	North West	Computer & IT	1
SASI INSTITUTE OF TECHNOLOGY & ENGINEERING	Andhra Pradesh	South Central	Computer & IT	1
GOVERNMENT COLLEGE OF ENGINEERING, CHANDRAPUR	Maharashtra	Western	Computer & IT	1
AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Computer & IT	1
INSTITUTE OF AERONAUTICAL ENGINEERING	Andhra Pradesh	South Central	Computer & IT	1
MUSALIAR COLLEGE OF ENGINEERING AND TECHNOLOGY PATHANAMTHITTA	Kerala	South West	Computer & IT	1
GOVERNMENT WOMEN'S POLYTECHNIC COLLEGE BHOPAL	Madhya Pradesh	Central	Computer & IT	1
RAJIV GANDHI INSTITUTE OF TECHNOLOGY,KOTTAYAM	Kerala	South West	Computer & IT	1
DR. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY	Andaman and Nicobar Islands	Eastern	Computer & IT	1

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK	Maharashtra	Western	Computer & IT	1
GOVERNMENT ENGINEERING COLLEGE CHANDKHEDA	Gujarat	Central	Computer & IT	1
SWAMI SACHCHIDANAND POLYTECHNIC COLLEGE	Gujarat	Central	Computer & IT	1
GOVERNMENT ENGINEERING COLLEGE BILASPUR	Chhattisgarh	Central	Computer & IT	1
GOVT. ENGG. COLLEGE, JAGDALPUR, BASTAR, CHHATTISGARH	Chhattisgarh	Central	Computer & IT	1
HIRASUGAR INSTIUTE OF TECHNOLOGY	Karnataka	South West	Computer & IT	1
COLLEGE OF ENGINEERING TRIKARIPUR	Kerala	South West	Computer & IT	1
DR.D.Y.PATIL POLYTECHNIC	Maharashtra	Western	Computer & IT	1
LUKHDHIRJI ENGINEERING COLLEGE	Gujarat	Central	Computer & IT	1
PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY , DINDIGUL	Tamil Nadu	Southern	Electrical	3
COLLEGE OF ENGINEERING, PUNE	Maharashtra	Western	Electrical	3
KONGU ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	3
BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Electrical	3
MANIPAL INSTITUTE OF TECHNOLOGY	Karnataka	South West	Electrical	3
ACHARYA INSTITUTE OF TECHNOLOGY	Karnataka	South West	Electrical	3
PAAVAI ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	3
S.A.ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	3
PANIMALAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	3
SONA COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Electrical	3
SETHU INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Electrical	3
R.M.K. ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	3
RAJALAKSHMI ENGINEERING COLLEGE (ENGINEERING & TECHNOLOGY)	Tamil Nadu	Southern	Electrical	3
DR.MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Electrical	3
ROEVER ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	3
M.KUMARASAMY COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Electrical	3

*Names are given in alphabetical order

APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
VEL TECH MULTI TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	3
VELAMMAL ENGINEERING COLLEGE (ENGG. & TECH)	Tamil Nadu	Southern	Electrical	3
MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	3
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	Electrical	3
G. H. RAISONI COLLEGE OF ENGINEERING, NAGPUR.	Maharashtra	Western	Electrical	2
ERODE SENGUNTHAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	2
R.M.D. ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	2
UNITED COLLEGE OF ENGINEERING & RESEARCH	Uttar Pradesh	Northern	Electrical	2
KUMARAGURU COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Electrical	2
SAINTGITS COLLEGE OF ENGINEERING	Kerala	South West	Electrical	2
AJAY KUMAR GARG ENGINEERING COLLEGE	Uttar Pradesh	Northern	Electrical	2
G.NARAYANAMMA INSTITUTE OF TECHNOLOGY & SCIENCE, FOR WOMEN	Andhra Pradesh	South Central	Electrical	2
C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Tamil Nadu	Southern	Electrical	2
BHARATI VIDYAPEETH DEEMED UNIVERSITY COLLEGE OF ENGINEERING	Maharashtra	Western	Electrical	2
VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Electrical	2
C.V.RAMAN COLLEGE OF ENGINEERING	Orissa	Eastern	Electrical	2
ABES ENGINEERING COLLEGE	Uttar Pradesh	Northern	Electrical	2
SRI VENKATESWARA COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Electrical	2
B. P. PODDAR INSTITUTE OF MANAGEMENT & TECHNOLOGY	West Bengal	Eastern	Electrical	2
SREE VIDYANIKETHAN ENGINEERING COLLEGE	Andhra Pradesh	South Central	Electrical	2
SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT, RAMDEO TEKDI, GITTIKHADAN, KATOL ROAD, NAGPUR	Maharashtra	Western	Electrical	2
ADHIPARASAKTHI ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	2
MUTHAYAMMAL ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	2
PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Electrical	2
PES INSTITUTE OF TECHNOLOGY	Karnataka	South West	Electrical	2

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	Rajasthan	North West	Electrical	2
ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES	Andhra Pradesh	South Central	Electrical	2
KASEGAON EDUCATION SOCIETYS RAJARAMBAPU INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Electrical	2
JAWAHARLAL INSTITUTE OF TECHNOLOGY, BORAWAN	Madhya Pradesh	Central	Electrical	2
MALLA REDDY ENGINEERING COLLEGE	Andhra Pradesh	South Central	Electrical	2
CHITKARA INSTITUTE OF ENGINEERING & TECHNOLOGY	Punjab	North West	Electrical	2
ROLAND INSTITUTE OF TECHNOLOGY	Orissa	Eastern	Electrical	2
NMAM INSTITUTE OF TECHNOLOGY, NITTE	Karnataka	South West	Electrical	2
BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT	Karnataka	South West	Electrical	2
ADI SHANKARA INSTITUTE OF ENGINEERING AND TECHNOLOGY	Kerala	South West	Electrical	2
MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY	Delhi	North West	Electrical	2
YESHWANTRAO CHAVAN COLLEGE OF ENGINEERING	Maharashtra	Western	Electrical	2
THAPAR UNIVERSITY	Punjab	North West	Electrical	2
B V BHOOMARADDI COLLEGE OF ENGINEERING & TECHNOLOGY	Karnataka	South West	Electrical	2
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE	Andhra Pradesh	South Central	Electrical	2
JODHPUR INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Electrical	2
MODEL ENGINEERING COLLEGE	Kerala	South West	Electrical	2
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	Electrical	2
SHANKARA INSTITUTE OF TECHNOLOGY	Rajasthan	North West	Electrical	2
SAVEETHA ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	2
BAPATLA ENGINEERING COLLEGE	Andhra Pradesh	South Central	Electrical	2
K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Electrical	2
RIMT-INSTITUTE OF ENGINEERING AND TECHNOLOGY	Punjab	North West	Electrical	2
VIDYAVARDHAKA COLLEGE OF ENGINEERING	Karnataka	South West	Electrical	2
ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S INSTITUTE OF INFORMATION TECHNOLOGY	Maharashtra	Western	Electrical	2

*Names are given in alphabetical order

APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
SRI SAI COLLEGE OF ENGG. & TECH	Punjab	North West	Electrical	2
PGP COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Electrical	2
VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE	Maharashtra	Western	Electrical	2
G H PATEL COLLEGE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Electrical	2
FRANCIS XAVIER ENGINEERING COLLEGE	Tamil Nadu	Southern	Electrical	2
SHRI RAM MURTI SMARAK COLLEGE OF ENGINEERING & TECHNOLOGY, BAREILLY	Uttar Pradesh	Northern	Electrical	2
SARDAR PATEL COLLEGE OF ENGINEERING	Maharashtra	Western	Electrical	2
COLLEGE OF ENGINEERING TRIKARIPUR	Kerala	South West	Electrical	2
BIRBHUM INSTITUTE OF ENGINEERING & TECHNOLOGY	West Bengal	Eastern	Electrical	2
V.R.S. COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Electrical	2
A.D.PATEL INSTITUTE OF TECHNOLOGY	Gujarat	Central	Electrical	2
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY	Kerala	South West	Electrical	2
SWAMI SACHCHIDANAND POLYTECHNIC COLLEGE	Gujarat	Central	Electrical	2
SASI INSTITUTE OF TECHNOLOGY & ENGINEERING	Andhra Pradesh	South Central	Electrical	2
ABHINAV HI-TECH COLLEGE OF ENGINEERING	Andhra Pradesh	South Central	Electrical	2
SHRI VAISHNAV INSTITUTE OF TECHNOLOGY & SCIENCE,	Madhya Pradesh	Central	Electrical	2
GOVERNMENT COLLEGE OF ENGINEERING, CHANDRAPUR	Maharashtra	Western	Electrical	2
SANKALCHAND PATEL COLLEGE OF ENGINEERING, VISNAGAR	Gujarat	Central	Electrical	2
LUKHDHIRJI ENGINEERING COLLEGE	Gujarat	Central	Electrical	2
INSTITUTE OF AERONAUTICAL ENGINEERING	Andhra Pradesh	South Central	Electrical	2
L. D. COLLEGE OF ENGINEERING	Gujarat	Central	Electrical	2
DON BOSCO INSTITUTE OF TECHNOLOGY	Karnataka	South West	Electrical	2
SRI VENKATESHWARA COLLEGE OF ENGINEERING	Karnataka	South West	Electrical	2
POORNIMA COLLEGE OF ENGINEERING	Rajasthan	North West	Electrical	1
AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Electrical	1

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
GOVERNMENT ENGINEERING COLLEGE CHANDKHEDA	Gujarat	Central	Electrical	1
JSS ACADEMY OF TECHNICAL EDUCATION	Uttar Pradesh	Northern	Electrical	1
SRI VENKATESA PERUMAL COLLEGE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Electrical	1
HIRASUGAR INSTIUTE OF TECHNOLOGY	Karnataka	South West	Electrical	1
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Electrical	1
MUSALIAR COLLEGE OF ENGINEERING AND TECHNOLOGY PATHANAMTHITTA	Kerala	South West	Electrical	1
SARADA INSTITUTE OF SCIENCE TECHNOLOGY AND MANAGEMENT	Andhra Pradesh	South Central	Electrical	1
RAJIV GANDHI INSTITUTE OF TECHNOLOGY,KOTTAYAM	Kerala	South West	Electrical	1
DR. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY	Andaman and Nicobar Islands	Eastern	Electrical	1
GOVERNMENT ENGINEERING COLLEGE BILASPUR	Chhattisgarh	Central	Electrical	1
KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK	Maharashtra	Western	Electrical	1
GOVT. ENGG. COLLEGE, JAGDALPUR, BASTAR, CHHATTISGARH	Chhattisgarh	Central	Electrical	1
NEOTIA INSTITUTE OF TECHNOLOGY ,MANAGEMENT AND SCIENCE	West Bengal	Eastern	Electrical	1
SHREE N M GOPANI POLYTECHNIC INSTITUTE	Gujarat	Central	Electrical	1
SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY	Kerala	South West	Electrical	1
PSG COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	3
ACHARYA INSTITUTE OF TECHNOLOGY	Karnataka	South West	Electronics and communciation	3
WALCHAND INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Electronics and communciation	3
S.A.ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	3
AMBALA COLLEGE OF ENGINEERING & APPLIED RESEARCH	Haryana	North West	Electronics and communciation	3
KONGU ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	3
PAAVAI ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	3
M.KUMARASAMY COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Electronics and communciation	3
PANIMALAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	3
G. H. RAISONI COLLEGE OF ENGINEERING, NAGPUR.	Maharashtra	Western	Electronics and communciation	3

*Names are given in alphabetical order

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Institute name	State	AICTE region	Subject Stream	Category
BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	3
KUMARAGURU COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	3
SONA COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	3
L&T INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Electronics and communciation	3
PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY , DINDIGUL	Tamil Nadu	Southern	Electronics and communciation	3
R.M.K. ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	3
VEL TECH MULTI TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	3
ERODE SENGUNTHAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	3
RAJALAKSHMI ENGINEERING COLLEGE (ENGINEERING & TECHNOLOGY)	Tamil Nadu	Southern	Electronics and communciation	3
DRONACHARYA COLLEGE OF ENGINEERING	Haryana	North West	Electronics and communciation	3
MEENAKSHI SUNDARARAJAN ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	3
B V BHOOMARADDI COLLEGE OF ENGINEERING & TECHNOLOGY	Karnataka	South West	Electronics and communciation	3
COLLEGE OF ENGINEERING, PUNE	Maharashtra	Western	Electronics and communciation	2
C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	2
ABES ENGINEERING COLLEGE	Uttar Pradesh	Northern	Electronics and communciation	2
VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY	Maharashtra	Western	Electronics and communciation	2
MALLA REDDY ENGINEERING COLLEGE	Andhra Pradesh	South Central	Electronics and communciation	2
VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Electronics and communciation	2
ARMY INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Electronics and communciation	2
PES INSTITUTE OF TECHNOLOGY	Karnataka	South West	Electronics and communciation	2
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	Rajasthan	North West	Electronics and communciation	2
INDO GLOBAL COLLEGE OF ENGINEERING	Punjab	North West	Electronics and communciation	2
CHITKARA INSTITUTE OF ENGINEERING & TECHNOLOGY	Punjab	North West	Electronics and communciation	2
SETHU INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	2
PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Electronics and communciation	2

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
DR.MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	2
C.V.RAMAN COLLEGE OF ENGINEERING	Orissa	Eastern	Electronics and communciation	2
SRI VENKATESWARA COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Electronics and communciation	2
B. P. PODDAR INSTITUTE OF MANAGEMENT & TECHNOLOGY	West Bengal	Eastern	Electronics and communciation	2
AMITY SCHOOL OF ENGINEERING & TECHNOLOGY	Delhi	North West	Electronics and communciation	2
VELAMMAL ENGINEERING COLLEGE (ENGG. & TECH)	Tamil Nadu	Southern	Electronics and communciation	2
JODHPUR INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Electronics and communciation	2
MODEL ENGINEERING COLLEGE	Kerala	South West	Electronics and communciation	2
SRI VENKATESHWARA COLLEGE OF ENGINEERING	Karnataka	South West	Electronics and communciation	2
AJAY KUMAR GARG ENGINEERING COLLEGE	Uttar Pradesh	Northern	Electronics and communciation	2
BHARATI VIDYAPEETH DEEMED UNIVERSITY COLLEGE OF ENGINEERING	Maharashtra	Western	Electronics and communciation	2
SAINTGITS COLLEGE OF ENGINEERING	Kerala	South West	Electronics and communciation	2
D.K.T.E. SOCIETY'S TEXTILE & ENGINEERING INSTITUTE	Maharashtra	Western	Electronics and communciation	2
R.M.D. ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	2
TEZPUR UNIVERSITY	Assam	Eastern	Electronics and communciation	2
MUTHAYAMMAL ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	2
UNITED COLLEGE OF ENGINEERING & RESEARCH	Uttar Pradesh	Northern	Electronics and communciation	2
SARADA INSTITUTE OF SCIENCE TECHNOLOGY AND MANAGEMENT	Andhra Pradesh	South Central	Electronics and communciation	2
BAPATLA ENGINEERING COLLEGE	Andhra Pradesh	South Central	Electronics and communciation	2
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	Electronics and communciation	2
YESHWANTRAO CHAVAN COLLEGE OF ENGINEERING	Maharashtra	Western	Electronics and communciation	2
VEL TECH HIGH TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	2
SAVEETHA ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	2
ADHIPARASAKTHI ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	2
K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	2

*Names are given in alphabetical order

APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
ST. FRANCIS INSTITUTE OF TECHNOLOGY (ENGG. COLLEGE)	Maharashtra	Western	Electronics and communciation	2
H.V.P.MANDAL'S COLLEGE OF ENGINEERING & TECHNOLOGY	Maharashtra	Western	Electronics and communciation	2
ROLAND INSTITUTE OF TECHNOLOGY	Orissa	Eastern	Electronics and communciation	2
V.R.S. COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	2
INSTITUTE OF ENGINEERING & MANAGEMENT	West Bengal	Eastern	Electronics and communciation	2
SRI VENKATESA PERUMAL COLLEGE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Electronics and communciation	2
KASEGAON EDUCATION SOCIETYS RAJARAMBAPU INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Electronics and communciation	2
SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT, RAMDEO TEKDI, GITTIKHADAN, KATOL ROAD, NAGPUR	Maharashtra	Western	Electronics and communciation	2
THAPAR UNIVERSITY	Punjab	North West	Electronics and communciation	2
ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES	Andhra Pradesh	South Central	Electronics and communciation	2
NMAM INSTITUTE OF TECHNOLOGY, NITTE	Karnataka	South West	Electronics and communciation	2
PGP COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Electronics and communciation	2
BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT	Karnataka	South West	Electronics and communciation	2
CHANDIGARH ENGINEERING COLLEGE	Punjab	North West	Electronics and communciation	2
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	Electronics and communciation	2
MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY	Delhi	North West	Electronics and communciation	2
A.V.C.COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Electronics and communciation	2
BIRBHUM INSTITUTE OF ENGINEERING & TECHNOLOGY	West Bengal	Eastern	Electronics and communciation	2
JAWAHARLAL INSTITUTE OF TECHNOLOGY, BORAWAN	Madhya Pradesh	Central	Electronics and communciation	2
SREE VIDYANIKETHAN ENGINEERING COLLEGE	Andhra Pradesh	South Central	Electronics and communciation	2
THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY	Maharashtra	Western	Electronics and communciation	2
POORNIMA COLLEGE OF ENGINEERING	Rajasthan	North West	Electronics and communciation	2
MANIPAL INSTITUTE OF TECHNOLOGY	Karnataka	South West	Electronics and communciation	2
FRANCIS XAVIER ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	2
DR. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY	Andaman and Nicobar Islands	Eastern	Electronics and communciation	2

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
SHRI VAISHNAV INSTITUTE OF TECHNOLOGY & SCIENCE,	Madhya Pradesh	Central	Electronics and communciation	2
VIDYAVARDHAKA COLLEGE OF ENGINEERING	Karnataka	South West	Electronics and communciation	2
SHRI RAM MURTI SMARAK COLLEGE OF ENGINEERING & TECHNOLOGY, BAREILLY	Uttar Pradesh	Northern	Electronics and communciation	2
ADI SHANKARA INSTITUTE OF ENGINEERING AND TECHNOLOGY	Kerala	South West	Electronics and communciation	2
IIMT ENGINEERING COLLEGE	Uttar Pradesh	Northern	Electronics and communciation	2
G H PATEL COLLEGE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Electronics and communciation	2
ROEVER ENGINEERING COLLEGE	Tamil Nadu	Southern	Electronics and communciation	2
MUSALIAR COLLEGE OF ENGINEERING AND TECHNOLOGY PATHANAMTHITTA	Kerala	South West	Electronics and communciation	2
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY	Kerala	South West	Electronics and communciation	2
ABHINAV HI-TECH COLLEGE OF ENGINEERING	Andhra Pradesh	South Central	Electronics and communciation	2
BHARATI VIDYAPEETH COLLEGE OF ENGINEERING, NAVI MUMBAI	Maharashtra	Western	Electronics and communciation	2
L. D. COLLEGE OF ENGINEERING	Gujarat	Central	Electronics and communciation	2
G.NARAYANAMMA INSTITUTE OF TECHNOLOGY & SCIENCE, FOR WOMEN	Andhra Pradesh	South Central	Electronics and communciation	2
RAJIV GANDHI INSTITUTE OF TECHNOLOGY,KOTTAYAM	Kerala	South West	Electronics and communciation	2
SRI SAI COLLEGE OF ENGG. & TECH	Punjab	North West	Electronics and communciation	2
BEANT COLLEGE OF ENGINEERING & TECHNOLOGY,GURDASPUR	Punjab	North West	Electronics and communciation	2
ENGINEERING COLLEGE,AJMER	Rajasthan	North West	Electronics and communciation	2
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE	Andhra Pradesh	South Central	Electronics and communciation	2
SHANKARA INSTITUTE OF TECHNOLOGY	Rajasthan	North West	Electronics and communciation	2
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Electronics and communciation	2
JSS ACADEMY OF TECHNICAL EDUCATION	Uttar Pradesh	Northern	Electronics and communciation	2
INSTITUTE OF AERONAUTICAL ENGINEERING	Andhra Pradesh	South Central	Electronics and communciation	2
DON BOSCO INSTITUTE OF TECHNOLOGY	Karnataka	South West	Electronics and communciation	2
RIMT-INSTITUTE OF ENGINEERING AND TECHNOLOGY	Punjab	North West	Electronics and communciation	2
SWAMI SACHCHIDANAND POLYTECHNIC COLLEGE	Gujarat	Central	Electronics and communciation	2

*Names are given in alphabetical order

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
A.D.PATEL INSTITUTE OF TECHNOLOGY	Gujarat	Central	Electronics and communciation	2
AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Electronics and communciation	2
NEOTIA INSTITUTE OF TECHNOLOGY ,MANAGEMENT AND SCIENCE	West Bengal	Eastern	Electronics and communciation	1
GOVERNMENT WOMEN'S POLYTECHNIC COLLEGE BHOPAL	Madhya Pradesh	Central	Electronics and communciation	1
SANKALCHAND PATEL COLLEGE OF ENGINEERING, VISNAGAR	Gujarat	Central	Electronics and communciation	1
SHREE N M GOPANI POLYTECHNIC INSTITUTE	Gujarat	Central	Electronics and communciation	1
KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK	Maharashtra	Western	Electronics and communciation	1
GOVERNMENT ENGINEERING COLLEGE BILASPUR	Chhattisgarh	Central	Electronics and communciation	1
SASI INSTITUTE OF TECHNOLOGY & ENGINEERING	Andhra Pradesh	South Central	Electronics and communciation	1
COLLEGE OF ENGINEERING TRIKARIPUR	Kerala	South West	Electronics and communciation	1
ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S INSTITUTE OF INFORMATION TECHNOLOGY	Maharashtra	Western	Electronics and communciation	1
VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE	Maharashtra	Western	Electronics and communciation	1
GOVT. ENGG. COLLEGE, JAGDALPUR, BASTAR, CHHATTISGARH	Chhattisgarh	Central	Electronics and communciation	1
PATEL COLLEGE OF SCIENCE & TECHNOLOGY	Madhya Pradesh	Central	Electronics and communciation	1
HIRASUGAR INSTIUTE OF TECHNOLOGY	Karnataka	South West	Electronics and communciation	1
DR.D.Y.PATIL POLYTECHNIC	Maharashtra	Western	Electronics and communciation	1
GOVERNMENT ENGINEERING COLLEGE CHANDKHEDA	Gujarat	Central	Electronics and communciation	1
SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY	Kerala	South West	Electronics and communciation	1
SRI SAI RAM ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	3
PSG COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Mechanical	3
WALCHAND INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Mechanical	3
RAJALAKSHMI ENGINEERING COLLEGE (ENGINEERING & TECHNOLOGY)	Tamil Nadu	Southern	Mechanical	3
COLLEGE OF ENGINEERING, PUNE	Maharashtra	Western	Mechanical	3
ACHARYA INSTITUTE OF TECHNOLOGY	Karnataka	South West	Mechanical	3
DR.MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Mechanical	3

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Mechanical	3
R.M.K. ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	3
S.A.ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	3
C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Tamil Nadu	Southern	Mechanical	3
PAAVAI ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	3
AJAY KUMAR GARG ENGINEERING COLLEGE	Uttar Pradesh	Northern	Mechanical	3
KONGU ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	3
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	Mechanical	3
D.K.T.E. SOCIETY'S TEXTILE & ENGINEERING INSTITUTE	Maharashtra	Western	Mechanical	3
SONA COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Mechanical	3
KUMARAGURU COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Mechanical	3
INDO GLOBAL COLLEGE OF ENGINEERING	Punjab	North West	Mechanical	2
PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY , DINDIGUL	Tamil Nadu	Southern	Mechanical	2
M.KUMARASAMY COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Mechanical	2
UNITED COLLEGE OF ENGINEERING & RESEARCH	Uttar Pradesh	Northern	Mechanical	2
5 TOOL ROOM	Punjab	North West	Mechanical	2
C.V.RAMAN COLLEGE OF ENGINEERING	Orissa	Eastern	Mechanical	2
KASEGAON EDUCATION SOCIETYS RAJARAMBAPU INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Mechanical	2
ERODE SENGUNTHAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	2
SETHU INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Mechanical	2
INSTITUTE OF AERONAUTICAL ENGINEERING	Andhra Pradesh	South Central	Mechanical	2
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Mechanical	2
AMBALA COLLEGE OF ENGINEERING & APPLIED RESEARCH	Haryana	North West	Mechanical	2
L&T INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Mechanical	2
PANIMALAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	2

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
DRONACHARYA COLLEGE OF ENGINEERING	Haryana	North West	Mechanical	2
SRI VENKATESWARA COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Mechanical	2
BHARATI VIDYAPEETH DEEMED UNIVERSITY COLLEGE OF ENGINEERING	Maharashtra	Western	Mechanical	2
CHANDIGARH ENGINEERING COLLEGE	Punjab	North West	Mechanical	2
MANIPAL INSTITUTE OF TECHNOLOGY	Karnataka	South West	Mechanical	2
COLLEGE OF ENGINEERING TRIVANDRUM	Kerala	South West	Mechanical	2
VELAMMAL ENGINEERING COLLEGE (ENGG. & TECH)	Tamil Nadu	Southern	Mechanical	2
G. H. RAISONI COLLEGE OF ENGINEERING, NAGPUR.	Maharashtra	Western	Mechanical	2
JODHPUR INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Mechanical	2
VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Mechanical	2
THAPAR UNIVERSITY	Punjab	North West	Mechanical	2
SAINTGITS COLLEGE OF ENGINEERING	Kerala	South West	Mechanical	2
B V BHOOMARADDI COLLEGE OF ENGINEERING & TECHNOLOGY	Karnataka	South West	Mechanical	2
MALLA REDDY ENGINEERING COLLEGE	Andhra Pradesh	South Central	Mechanical	2
VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY	Maharashtra	Western	Mechanical	2
IIMT ENGINEERING COLLEGE	Uttar Pradesh	Northern	Mechanical	2
ARMY INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Mechanical	2
PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Mechanical	2
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	Mechanical	2
VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE	Maharashtra	Western	Mechanical	2
ADHIPARASAKTHI ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	2
MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY	Delhi	North West	Mechanical	2
YESHWANTRAO CHAVAN COLLEGE OF ENGINEERING	Maharashtra	Western	Mechanical	2
CHITKARA INSTITUTE OF ENGINEERING & TECHNOLOGY	Punjab	North West	Mechanical	2
SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT, RAMDEO TEKDI, GITTIKHADAN, KATOL ROAD, NAGPUR	Maharashtra	Western	Mechanical	2

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
BEANT COLLEGE OF ENGINEERING & TECHNOLOGY,GURDASPUR	Punjab	North West	Mechanical	2
BAPATLA ENGINEERING COLLEGE	Andhra Pradesh	South Central	Mechanical	2
K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Mechanical	2
SHAHEED BHAGAT SINGH STATE TECHNICAL CAMPUS	Punjab	North West	Mechanical	2
JSS ACADEMY OF TECHNICAL EDUCATION	Uttar Pradesh	Northern	Mechanical	2
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY	Kerala	South West	Mechanical	2
ABES ENGINEERING COLLEGE	Uttar Pradesh	Northern	Mechanical	2
ROEVER ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	2
SWAMI SACHCHIDANAND POLYTECHNIC COLLEGE	Gujarat	Central	Mechanical	2
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	Rajasthan	North West	Mechanical	2
V.R.S. COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Mechanical	2
SRI VENKATESHWARA COLLEGE OF ENGINEERING	Karnataka	South West	Mechanical	2
ROLAND INSTITUTE OF TECHNOLOGY	Orissa	Eastern	Mechanical	2
G H PATEL COLLEGE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Mechanical	2
ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES	Andhra Pradesh	South Central	Mechanical	2
SHRI RAM MURTI SMARAK COLLEGE OF ENGINEERING & TECHNOLOGY, BAREILLY	Uttar Pradesh	Northern	Mechanical	2
JAWAHARLAL INSTITUTE OF TECHNOLOGY, BORAWAN	Madhya Pradesh	Central	Mechanical	2
PES INSTITUTE OF TECHNOLOGY	Karnataka	South West	Mechanical	2
SANKALCHAND PATEL COLLEGE OF ENGINEERING, VISNAGAR	Gujarat	Central	Mechanical	2
L. D. COLLEGE OF ENGINEERING	Gujarat	Central	Mechanical	2
SARDAR PATEL COLLEGE OF ENGINEERING	Maharashtra	Western	Mechanical	2
DON BOSCO INSTITUTE OF TECHNOLOGY	Karnataka	South West	Mechanical	2
AMITY SCHOOL OF ENGINEERING & TECHNOLOGY	Delhi	North West	Mechanical	2
VIDYAVARDHAKA COLLEGE OF ENGINEERING	Karnataka	South West	Mechanical	2
POORNIMA COLLEGE OF ENGINEERING	Rajasthan	North West	Mechanical	2

*Names are given in alphabetical order

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT	Karnataka	South West	Mechanical	2
ADI SHANKARA INSTITUTE OF ENGINEERING AND TECHNOLOGY	Kerala	South West	Mechanical	2
PGP COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Mechanical	2
A.D.PATEL INSTITUTE OF TECHNOLOGY	Gujarat	Central	Mechanical	2
ENGINEERING COLLEGE,AJMER	Rajasthan	North West	Mechanical	2
RIMT-INSTITUTE OF ENGINEERING AND TECHNOLOGY	Punjab	North West	Mechanical	2
NMAM INSTITUTE OF TECHNOLOGY, NITTE	Karnataka	South West	Mechanical	2
ABHINAV HI-TECH COLLEGE OF ENGINEERING	Andhra Pradesh	South Central	Mechanical	2
HIRASUGAR INSTIUTE OF TECHNOLOGY	Karnataka	South West	Mechanical	2
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE	Andhra Pradesh	South Central	Mechanical	2
DR. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY	Andaman and Nicobar Islands	Eastern	Mechanical	2
SRI SAI COLLEGE OF ENGG. & TECH	Punjab	North West	Mechanical	2
GOVERNMENT COLLEGE OF ENGINEERING, CHANDRAPUR	Maharashtra	Western	Mechanical	2
SARADA INSTITUTE OF SCIENCE TECHNOLOGY AND MANAGEMENT	Andhra Pradesh	South Central	Mechanical	2
BHARATI VIDYAPEETH COLLEGE OF ENGINEERING, NAVI MUMBAI	Maharashtra	Western	Mechanical	2
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Mechanical	2
SHANKARA INSTITUTE OF TECHNOLOGY	Rajasthan	North West	Mechanical	2
TEZPUR UNIVERSITY	Assam	Eastern	Mechanical	2
A.V.C.COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Mechanical	1
SASI INSTITUTE OF TECHNOLOGY & ENGINEERING	Andhra Pradesh	South Central	Mechanical	1
SHREE N M GOPANI POLYTECHNIC INSTITUTE	Gujarat	Central	Mechanical	1
BIRBHUM INSTITUTE OF ENGINEERING & TECHNOLOGY	West Bengal	Eastern	Mechanical	1
KAVIKULGURU INSTITUTE OF TECHNOLOGY AND SCIENCE, RAMTEK	Maharashtra	Western	Mechanical	1
RAJIV GANDHI INSTITUTE OF TECHNOLOGY,KOTTAYAM	Kerala	South West	Mechanical	1
LUKHDHIRJI ENGINEERING COLLEGE	Gujarat	Central	Mechanical	1

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
MUSALIAR COLLEGE OF ENGINEERING AND TECHNOLOGY PATHANAMTHITTA	Kerala	South West	Mechanical	1
AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Mechanical	1
SHRI VAISHNAV INSTITUTE OF TECHNOLOGY & SCIENCE,	Madhya Pradesh	Central	Mechanical	1
GOVERNMENT ENGINEERING COLLEGE BILASPUR	Chhattisgarh	Central	Mechanical	1
GOVERNMENT ENGINEERING COLLEGE CHANDKHEDA	Gujarat	Central	Mechanical	1
NEOTIA INSTITUTE OF TECHNOLOGY ,MANAGEMENT AND SCIENCE	West Bengal	Eastern	Mechanical	1
PATEL COLLEGE OF SCIENCE & TECHNOLOGY	Madhya Pradesh	Central	Mechanical	1
MODEL ENGINEERING COLLEGE	Kerala	South West	Mechanical	1
GOVT. ENGG. COLLEGE, JAGDALPUR, BASTAR, CHHATTISGARH	Chhattisgarh	Central	Mechanical	1
FRANCIS XAVIER ENGINEERING COLLEGE	Tamil Nadu	Southern	Mechanical	1
SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY	Kerala	South West	Mechanical	1
SRI SAI RAM ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	3
WALCHAND INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Emerging Engineering	3
RAJIV GANDHI INSTITUTE FOR STEEL TECHNOLOGY	Karnataka	South West	Emerging Engineering	3
S.A.ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	3
PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY , DINDIGUL	Tamil Nadu	Southern	Emerging Engineering	3
IES COLLEGE OF TECHNOLOGY, BHOPAL	Madhya Pradesh	Central	Emerging Engineering	3
BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	3
PSG COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	3
R.M.K. ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	3
M.KUMARASAMY COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Emerging Engineering	3
RAJALAKSHMI ENGINEERING COLLEGE (ENGINEERING & TECHNOLOGY)	Tamil Nadu	Southern	Emerging Engineering	3
ACHARYA INSTITUTE OF TECHNOLOGY	Karnataka	South West	Emerging Engineering	3
VEL TECH MULTI TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	3
PAAVAI ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	3

*Names are given in alphabetical order

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
KONGU ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	3
SONA COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	3
L&T INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Emerging Engineering	3
PANIMALAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	3
D.K.T.E. SOCIETY'S TEXTILE & ENGINEERING INSTITUTE	Maharashtra	Western	Emerging Engineering	3
DR.MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	3
KUMARAGURU COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	3
SRI SHAKTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	3
GANESHI LAL BAJAJ INSTITUTE OF TECHNOLOGY AND MANAGEMENT	Uttar Pradesh	Northern	Emerging Engineering	3
ERODE SENGUNTHAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	3
SRI ESHWAR COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Emerging Engineering	3
G. H. RAISONI COLLEGE OF ENGINEERING, NAGPUR.	Maharashtra	Western	Emerging Engineering	3
CT INSTIUTTE OF ENGINEERING, MANAGEMENT & TECHNOLOGY	Punjab	North West	Emerging Engineering	2
C.V.RAMAN COLLEGE OF ENGINEERING	Orissa	Eastern	Emerging Engineering	2
MLR INSTITUTE OF TECHNOLOGY	Andhra Pradesh	South Central	Emerging Engineering	2
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	Emerging Engineering	2
UNITED COLLEGE OF ENGINEERING & RESEARCH	Uttar Pradesh	Northern	Emerging Engineering	2
5 INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY LUCKNOW	Uttar Pradesh	Northern	Emerging Engineering	2
SETHU INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	2
QUANTUM SCHOOL OF TECHNOLOGY	Uttarakhand	Northern	Emerging Engineering	2
VELAMMAL ENGINEERING COLLEGE (ENGG. & TECH)	Tamil Nadu	Southern	Emerging Engineering	2
THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY	Maharashtra	Western	Emerging Engineering	2
AJAY KUMAR GARG ENGINEERING COLLEGE	Uttar Pradesh	Northern	Emerging Engineering	2
ABES ENGINEERING COLLEGE	Uttar Pradesh	Northern	Emerging Engineering	2
VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Emerging Engineering	2

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Institute name	State	AICTE region	Subject Stream	Category
GEETA INSTITUTE OF MANAGEMENT & TECHNOLOGY	Haryana	North West	Emerging Engineering	2
SAINTGITS COLLEGE OF ENGINEERING	Kerala	South West	Emerging Engineering	2
BHARATIYA VIDYA BHAVANS SARDAR PATEL INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Emerging Engineering	2
PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Emerging Engineering	2
VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY	Maharashtra	Western	Emerging Engineering	2
ARYA INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Emerging Engineering	2
GNANAMANI COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	2
MANIPAL INSTITUTE OF TECHNOLOGY	Karnataka	South West	Emerging Engineering	2
VIVEKANANDA INSTITUTE OF TECHNOLOGY - EAST (FORMERLY VIVEKANANDA COLLEGE OF ENGINEERING)	Rajasthan	North West	Emerging Engineering	2
R. K. COLLEGE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Emerging Engineering	2
KASEGAON EDUCATION SOCIETYS RAJARAMBAPU INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Emerging Engineering	2
BHARATI VIDYAPEETH DEEMED UNIVERSITY COLLEGE OF ENGINEERING	Maharashtra	Western	Emerging Engineering	2
SRI VENKATESWARA COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Emerging Engineering	2
MALLA REDDY ENGINEERING COLLEGE	Andhra Pradesh	South Central	Emerging Engineering	2
JODHPUR INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Emerging Engineering	2
VIVEKANANDA INSTITUTE OF TECHNOLOGY	Rajasthan	North West	Emerging Engineering	2
DATTA MEGHE INSTITUTE OF ENGINEERING TECHNOLOGY AND RESEARCH	Maharashtra	Western	Emerging Engineering	2
COLLEGE OF ENGINEERING TRIVANDRUM	Kerala	South West	Emerging Engineering	2
PES INSTITUTE OF TECHNOLOGY	Karnataka	South West	Emerging Engineering	2
DADI INSTITUTE OF ENGINEERING & TECHNOLOGY (DIET)	Andhra Pradesh	South Central	Emerging Engineering	2
DESH BHAGAT ENGINEERING COLLEGE	Punjab	North West	Emerging Engineering	2
MUTHAYAMMAL ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	2
CONTINENTAL INSTITUTE OF ENGINEERING AND TECHNOLOGY	Punjab	North West	Emerging Engineering	2
KATHIR COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Emerging Engineering	2

*Names are given in alphabetical order

APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
MANAV RACHNA COLLEGE OF ENGINEERING	Haryana	North West	Emerging Engineering	2
AMITY SCHOOL OF ENGINEERING & TECHNOLOGY	Delhi	North West	Emerging Engineering	2
R D ENGINEERING COLLEGE	Uttar Pradesh	Northern	Emerging Engineering	2
MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY	Delhi	North West	Emerging Engineering	2
VELAMMAL COLLEGE OF ENGINEERING & TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	2
SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT, RAMDEO TEKDI, GITTIKHADAN, KATOL ROAD, NAGPUR	Maharashtra	Western	Emerging Engineering	2
SAVEETHA ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	2
INSTITUTE OF CHEMICAL TECHNOLOGY	Maharashtra	Western	Emerging Engineering	2
SREE VIDYANIKETHAN ENGINEERING COLLEGE	Andhra Pradesh	South Central	Emerging Engineering	2
B V BHOOMARADDI COLLEGE OF ENGINEERING & TECHNOLOGY	Karnataka	South West	Emerging Engineering	2
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	2
V.R.S. COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	2
SHRI RAM MURTI SMARAK COLLEGE OF ENGINEERING & TECHNOLOGY, BAREILLY	Uttar Pradesh	Northern	Emerging Engineering	2
ADHIPARASAKTHI ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	2
INSTITUTE OF ENGINEERING & MANAGEMENT	West Bengal	Eastern	Emerging Engineering	2
G.NARAYANAMMA INSTITUTE OF TECHNOLOGY & SCIENCE, FOR WOMEN	Andhra Pradesh	South Central	Emerging Engineering	2
K.S.RANGASAMY COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	2
CMR INSTITUTE OF TECHNOLOGY	Andhra Pradesh	South Central	Emerging Engineering	2
YESHWANTRAO CHAVAN COLLEGE OF ENGINEERING	Maharashtra	Western	Emerging Engineering	2
VNS GROUP OF INSTITUTIONS	Madhya Pradesh	Central	Emerging Engineering	2
RAJIV GANDHI COLLEGE OF ENGINEERING AND RESEARCH	Maharashtra	Western	Emerging Engineering	2
SHREE CHANAKYA EDUCATION SOCIETY'S INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT	Maharashtra	Western	Emerging Engineering	2
KURUKSHETRA INSTITUTE OF TECHNOLOGY & MANAGEMENT	Haryana	North West	Emerging Engineering	2
THAPAR UNIVERSITY	Punjab	North West	Emerging Engineering	2
VEL TECH HIGH TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	2
ROEVER ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	2

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	Emerging Engineering	2
IIMT ENGINEERING COLLEGE	Uttar Pradesh	Northern	Emerging Engineering	2
SHIVALIK COLLEGE OF ENGINEERING	Uttarakhand	Northern	Emerging Engineering	2
MODEL ENGINEERING COLLEGE	Kerala	South West	Emerging Engineering	2
POORNIMA INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Emerging Engineering	2
ADI SHANKARA INSTITUTE OF ENGINEERING AND TECHNOLOGY	Kerala	South West	Emerging Engineering	2
JAWAHARLAL INSTITUTE OF TECHNOLOGY, BORAWAN	Madhya Pradesh	Central	Emerging Engineering	2
SARDAR PATEL COLLEGE OF ENGINEERING	Maharashtra	Western	Emerging Engineering	2
VIDYAVARDHAKA COLLEGE OF ENGINEERING	Karnataka	South West	Emerging Engineering	2
ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES	Andhra Pradesh	South Central	Emerging Engineering	2
BAPATLA ENGINEERING COLLEGE	Andhra Pradesh	South Central	Emerging Engineering	2
TEZPUR UNIVERSITY	Assam	Eastern	Emerging Engineering	2
SHRI VAISHNAV INSTITUTE OF TECHNOLOGY & SCIENCE,	Madhya Pradesh	Central	Emerging Engineering	2
SCMS SCHOOL OF ENGINEERING & TECHNOLOGY	Kerala	South West	Emerging Engineering	2
JIET SCHOOL OF ENGINEERING & TECHNOLOGY FOR GIRLS	Rajasthan	North West	Emerging Engineering	2
SRI VENKATESHWARA COLLEGE OF ENGINEERING	Karnataka	South West	Emerging Engineering	2
PGP COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	2
SRI SAI COLLEGE OF ENGG. & TECH	Punjab	North West	Emerging Engineering	2
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE	Andhra Pradesh	South Central	Emerging Engineering	2
SRI VENKATESA PERUMAL COLLEGE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Emerging Engineering	2
INSTITUTE OF AERONAUTICAL ENGINEERING	Andhra Pradesh	South Central	Emerging Engineering	2
ACROPOLIS INSTITUTE OF TECHNOLOGY AND RESEARCH	Madhya Pradesh	Central	Emerging Engineering	2
BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT	Karnataka	South West	Emerging Engineering	2
BEANT COLLEGE OF ENGINEERING & TECHNOLOGY,GURDASPUR	Punjab	North West	Emerging Engineering	2
G H PATEL COLLEGE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Emerging Engineering	2

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
RIMT-INSTITUTE OF ENGINEERING AND TECHNOLOGY	Punjab	North West	Emerging Engineering	2
PRESTIGE INSTITUTE OF ENGINEERING AND SCIENCE	Madhya Pradesh	Central	Emerging Engineering	2
VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE	Maharashtra	Western	Emerging Engineering	2
UNIVERSITY COLLEGE OF TECHNOLOGY	Andhra Pradesh	South Central	Emerging Engineering	2
JSS ACADEMY OF TECHNICAL EDUCATION	Uttar Pradesh	Northern	Emerging Engineering	2
SYMBIOSIS INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Emerging Engineering	2
DEVENDER SINGH INSTITUTE OF TECHNOLOGY AND MANAGEMENT	Uttar Pradesh	Northern	Emerging Engineering	2
FRANCIS XAVIER ENGINEERING COLLEGE	Tamil Nadu	Southern	Emerging Engineering	2
R.C.M. POLYTECHNIC	Haryana	North West	Emerging Engineering	2
RAJALAKSHMI INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	2
SHANKARA INSTITUTE OF TECHNOLOGY	Rajasthan	North West	Emerging Engineering	2
POORNIMA COLLEGE OF ENGINEERING	Rajasthan	North West	Emerging Engineering	2
ENGINEERING COLLEGE,AJMER	Rajasthan	North West	Emerging Engineering	2
BIRBHUM INSTITUTE OF ENGINEERING & TECHNOLOGY	West Bengal	Eastern	Emerging Engineering	2
GOVERNMENT ENGINEERING COLLEGE	Gujarat	Central	Emerging Engineering	2
DR. BABASAHEB AMBEDKAR COLLEGE OF ENGINEERING AND RESEARCH,	Maharashtra	Western	Emerging Engineering	2
SANKALCHAND PATEL COLLEGE OF ENGINEERING, VISNAGAR	Gujarat	Central	Emerging Engineering	2
AMRAPALI INSTITUTE OF TECHNOLOGY AND SCIENCES	Uttarakhand	Northern	Emerging Engineering	2
SWAMI SACHCHIDANAND POLYTECHNIC COLLEGE	Gujarat	Central	Emerging Engineering	2
VIVEKANANDA COLLEGE OF TECHNOLOGY & MANAGEMENT, ALIGARH	Uttar Pradesh	Northern	Emerging Engineering	2
TECHNIQUE POLYTECHNIC INSTITUTE	West Bengal	Eastern	Emerging Engineering	2
ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S INSTITUTE OF INFORMATION TECHNOLOGY	Maharashtra	Western	Emerging Engineering	2
BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY	Delhi	North West	Emerging Engineering	2
COLUMBIA INSTITUTE OF ENGINEERING & TECHNOLOGY	Chhattisgarh	Central	Emerging Engineering	2
KIIT COLLEGE OF ENGINEERING	Haryana	North West	Emerging Engineering	2

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
BABARIA INSTITUTE OF TECHNOLOGY	Gujarat	Central	Emerging Engineering	2
JKK MUNIRAJAH COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	2
GOVERNMENT WOMEN'S POLYTECHNIC COLLEGE BHOPAL	Madhya Pradesh	Central	Emerging Engineering	2
GOVERNMENT COLLEGE OF ENGINEERING, CHANDRAPUR	Maharashtra	Western	Emerging Engineering	2
JP INSTITUTE OF ENGINEERING & TECHNILOGY	Uttar Pradesh	Northern	Emerging Engineering	2
SHREE N M GOPANI POLYTECHNIC INSTITUTE	Gujarat	Central	Emerging Engineering	1
SASI INSTITUTE OF TECHNOLOGY & ENGINEERING	Andhra Pradesh	South Central	Emerging Engineering	1
GOVT. ENGINEERING COLLEGE RAIPUR	Chhattisgarh	Central	Emerging Engineering	1
GANGA INSTITUTE OF TECHNOLOGY AND MANAGEMENT	Haryana	North West	Emerging Engineering	1
MOODLAKATTE INSTITUTE OF TECHNOLOGY	Karnataka	South West	Emerging Engineering	1
MUSALIAR COLLEGE OF ENGINEERING AND TECHNOLOGY PATHANAMTHITTA	Kerala	South West	Emerging Engineering	1
UNIVERSITY INSTITUTE OF ENGINEERING AND TECHNOLOGY	Chandigarh	North West	Emerging Engineering	1
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Emerging Engineering	1
RAJIV GANDHI INSTITUTE OF TECHNOLOGY,KOTTAYAM	Kerala	South West	Emerging Engineering	1
SHRI MATA VAISHNO DEVI UNIVERSITY	Jammu and Kashmir	North West	Emerging Engineering	1
AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Emerging Engineering	1
BRAHMDEVDADA MANE INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Emerging Engineering	1
GRT INSTITUTE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Emerging Engineering	1
CAMELLIA INSTITUTE OF TECHNOLOGY	West Bengal	Eastern	Emerging Engineering	1
COLLEGE OF ENGINEERING TRIKARIPUR	Kerala	South West	Emerging Engineering	1
KOTTAM KARUNAKARA REDDY INSTITUTE OF TECHNOLOGY	Andhra Pradesh	South Central	Emerging Engineering	1
LUKHDHIRJI ENGINEERING COLLEGE	Gujarat	Central	Emerging Engineering	1
GOVERNMENT ENGINEERING COLLEGE CHANDKHEDA	Gujarat	Central	Emerging Engineering	1
GOVT. ENGG. COLLEGE, JAGDALPUR, BASTAR, CHHATTISGARH	Chhattisgarh	Central	Emerging Engineering	1
SHRI SITARAMBHAI NARANJI PATEL INSTITUTE OF TECHNOLOGY, MANAGED BY VIDYABHARTI TRUST, UMRAKH -BARDOLI	Gujarat	Central	Emerging Engineering	1

*Names are given in alphabetical order

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
DR.D.Y.PATIL POLYTECHNIC	Maharashtra	Western	Emerging Engineering	1
MASTER SCHOOL OF MANAGEMENT	Uttar Pradesh	Northern	Management	3
BANNARI AMMAN INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Management	3
XAVIER LABOUR RELATIONS INSTITUTE (XLRI)	Jharkhand	Eastern	Management	3
SRI SAI RAM ENGINEERING COLLEGE (MBA)	Tamil Nadu	Southern	Management	3
INSTITUTE OF MANAGEMENT STUDIES, NOIDA	Uttar Pradesh	Northern	Management	3
ENTREPRENEURSHIP DEVELOPMENT INSTITUTE OF INDIA	Gujarat	Central	Management	3
KONGU ENGINEERING COLLEGE-MBA	Tamil Nadu	Southern	Management	3
UNITED INSTITUTE OF MANAGEMENT (MBA)	Uttar Pradesh	Northern	Management	3
GOA INSTITUTE OF MANAGEMENT	Goa	Western	Management	3
LAL BAHADUR SHASTRI INSTITUTE OF MANAGEMENET, DELHI	Delhi	North West	Management	3
CALCUTTA BUSINESS SCHOOL	West Bengal	Eastern	Management	3
MARTHOMA COLLEGE OF MANAGEMENT AND TECHNOLOGY	Kerala	South West	Management	3
PRIN L N WELINGKAR INSTITUTE OF MANAGEMENT DEVELOPMENT & RESEARCH	Karnataka	South West	Management	3
OM KOTHARI INSTITUTE OF MANAGEMENT & RESEARCH	Rajasthan	North West	Management	3
PRESTIGE INSTITUTE OF MANAGEMENT	Madhya Pradesh	Central	Management	3
INSTITUTE OF MANAGEMENT & INFORMATION SCIENCE	Orissa	Eastern	Management	3
PSG COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Management	3
IIMT MANAGEMENT COLLEGE	Uttar Pradesh	Northern	Management	3
INSTITUTE FOR FINANCIAL MANAGEMENT AND RESEARCH	Tamil Nadu	Southern	Management	3
JAGANNATH INTERNATIONAL MANAGEMENT SCHOOL	Delhi	North West	Management	3
GALGOTIAS BUSINESS SCHOOL	Uttar Pradesh	Northern	Management	3
SSM SCHOOL OF MANAGEMENT AND COMPUTER APPLICATIONS	Tamil Nadu	Southern	Management	3
SARDAR VALLABHBHAI PATEL INTSITUTE OF TEXTILES MANAGEMENT	Tamil Nadu	Southern	Management	3
7 INSTITUTE FOR INTEGRATED LEARNING IN MANAGEMENT (NIILM)	Uttar Pradesh	Northern	Management	3

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
PANIMALAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Management	3
SONA COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Management	3
BIRLA INSTITUTE OF MANAGEMENT TECHNOLOGY	Uttar Pradesh	Northern	Management	3
KHANDELWAL COLLEGE OF MANAGEMENT SCIENCE & TECHNOLOGY (MBA)	Uttar Pradesh	Northern	Management	3
RAKSHPAL BAHADUR MANAGEMENT INSTITUTE, BAREILLY (MBA)	Uttar Pradesh	Northern	Management	3
PB SIDDHARTHA COLLEGE OF ARTS & SCIENCE PG STUDIES	Andhra Pradesh	South Central	Management	2
CH INSTITUTE OF MANAGEMENT & COMMERCE	Madhya Pradesh	Central	Management	2
INTERNATIONAL SCHOOL OF INFORMATICS & MANAGEMENT	Rajasthan	North West	Management	2
REGIONAL COLLEGE OF MANAGEMENT AUTONOMOUS	Orissa	Eastern	Management	2
S.A.ENGINEERING COLLEGE	Tamil Nadu	Southern	Management	2
JAIPURIA INSTITUTE OF MANAGEMENT	Rajasthan	North West	Management	2
MET INSTITUTE OF MANAGEMENT	Maharashtra	Western	Management	2
INDIRA SCHOOL OF BUSINESS STUDIES	Maharashtra	Western	Management	2
INDIRA INSTITUTE OF MANAGEMENT	Maharashtra	Western	Management	2
"INSTITUTE OF MARKETING & MANAGEMENT - BUSINESS SCHOOL"	Delhi	North West	Management	2
INSTITUTE OF PUBLIC ENTERPRISE	Andhra Pradesh	South Central	Management	2
AL-AMEEN INSTITUTE OF MANAGEMENT STUDIES	Karnataka	South West	Management	2
SCMS SCHOOL OF TECHNOLOGY & MANAGEMENT (MBA)	Kerala	South West	Management	2
INDIAN INSTITUTE OF TOURISM AND TRAVEL MANAGEMENT NEW DELHI	Delhi	North West	Management	2
INSTITUTE OF MANAGEMENT SCIENCES	Jammu and Kashmir	North West	Management	2
INSTITUTE OF BUSINESS MANAGEMENT AND RESEARCH	Madhya Pradesh	Central	Management	2
KUMARAGURU COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Management	2
ARMY INSTITUTE OF MANAGEMENT	West Bengal	Eastern	Management	2
D.J.ACADEMY FOR MANAGERIAL EXCELLENCE	Tamil Nadu	Southern	Management	2
NATIONAL INSTITUTE OF AGRICULTURAL EXTENSION MANAGEMENT	Andhra Pradesh	South Central	Management	2

*Names are given in alphabetical order

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
INSTITUTE OF FINANCE & INTERNATIONAL MANAGEMENT	Karnataka	South West	Management	2
SAMBHRAM ACADEMY OF MANAGEMENT STUDIES	Karnataka	South West	Management	2
CHITKARA INSTITUTE OF ENGINEERING & TECHNOLOGY	Punjab	North West	Management	2
SCHOOL OF MANAGEMENT SCIENCES	Uttar Pradesh	Northern	Management	2
BLDEA'S A.S. PATIL COLLEGE OF COMMERCE, MBA COURSE, BIJAPUR	Karnataka	South West	Management	2
PRESTIGE INSTITUTE OF INSTITUTE OF MANAGEMENT AND RESEARCH	Madhya Pradesh	Central	Management	2
B V BHOOMARADDI COLLEGE OF ENGINEERING & TECHNOLOGY	Karnataka	South West	Management	2
R.V. INSTITUTE OF MANAGEMENT	Karnataka	South West	Management	2
DATTA MEGHE INSTITUTE OF MANAGEMENT STUDIES	Maharashtra	Western	Management	2
SAINTGITS COLLEGE OF ENGINEERING	Kerala	South West	Management	2
DAYANANDA SAGAR BUSINESS SCHOOL	Karnataka	South West	Management	2
MUTHAYAMMAL ENGINEERING COLLEGE	Tamil Nadu	Southern	Management	2
MANAV RACHNA COLLEGE OF ENGINEERING	Haryana	North West	Management	2
THIAGARAJAR SCHOOL OF MANAGEMENT	Tamil Nadu	Southern	Management	2
XAVIER INSTITUTE OF SOCIAL SERVICE	Jharkhand	Eastern	Management	2
ERODE SENGUNTHAR ENGINEERING COLLEGE	Tamil Nadu	Southern	Management	2
JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA	Uttar Pradesh	Northern	Management	2
DESH BHAGAT INSTITUTE OF MANAGEMENT AND COMPUTER SCIENCES	Punjab	North West	Management	2
VNS GROUP OF INSTITUTIONS	Madhya Pradesh	Central	Management	2
BIJU PATNAIK INSTITUTE OF INFORMATION TECHNOLOGY AND MANAGEMENT STUDIES	Orissa	Eastern	Management	2
DAYANAND ACADEMY OF MANAGEMENT STUDIES	Uttar Pradesh	Northern	Management	2
GEETA INSTITUTE OF MANAGEMENT & TECHNOLOGY	Haryana	North West	Management	2
IIPM SCHOOL OF MANAGEMENT	Orissa	Eastern	Management	2
GNANAMANI COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Management	2
SAVEETHA ENGINEERING COLLEGE	Tamil Nadu	Southern	Management	2

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
G. H. RAISONI COLLEGE OF ENGINEERING, NAGPUR.	Maharashtra	Western	Management	2
ABES ENGINEERING COLLEGE	Uttar Pradesh	Northern	Management	2
CMR INSTITUTE OF TECHNOLOGY	Andhra Pradesh	South Central	Management	2
DALY COLLEGE BUSINESS SCHOOL	Madhya Pradesh	Central	Management	2
INSTITUTE OF ENGINEERING & MANAGEMENT	West Bengal	Eastern	Management	2
SENGUNTHAR INSTITUTE OF MANGEMENT STUDIES	Tamil Nadu	Southern	Management	2
PADMASHREE INSTITUTE OF MANAGEMENT STUDIES	Karnataka	South West	Management	2
GNA INSTITUTE OF MANAGEMENT AND TECHNOLOGY	Punjab	North West	Management	2
VELAMMAL COLLEGE OF ENGINEERING & TECHNOLOGY	Tamil Nadu	Southern	Management	2
SMT. R.D. GARDI DEPARTMENT OF BUSINESS MANAGEMENT	Gujarat	Central	Management	2
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Management	2
AISSMS INSTITUTE OF MANAGEMENT	Maharashtra	Western	Management	2
RAJARSHI SCHOOL OF MANAGEMENT AND TECHNOLOGY	Uttar Pradesh	Northern	Management	2
DELHI INSTITUTE OF ADVANCED STUDIES	Delhi	North West	Management	2
MKSSS'S SMT. HIRABEN NANAVATI INSTITUTE OF MANAGEMENT & RESEARCH FOR WOMEN	Maharashtra	Western	Management	2
KASEGAON EDUCATION SOCIETYS RAJARAMBAPU INSTITUTE OF TECHNOLOGY	Maharashtra	Western	Management	2
DURGAPUR INSTITUTE OF MANAGEMENT AND SCIENCE	West Bengal	Eastern	Management	2
INSTITUTE OF AGRI BUSINESS MANAGEMENT	Rajasthan	North West	Management	2
MLR INSTITUTE OF TECHNOLOGY	Andhra Pradesh	South Central	Management	2
JP INSTITUTE OF ENGINEERING & TECHNILOGY	Uttar Pradesh	Northern	Management	2
SCHOOL OF COMMUNICATION AND MANAGEMENT STUDIES (SCMS-COCHIN)	Kerala	South West	Management	2
DR. VIRENDRA SWARUP INSTITUTE OF COMPUTER STUDIES	Uttar Pradesh	Northern	Management	2
BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT	Karnataka	South West	Management	2
PACIFIC INSTITUTE OF MANAGEMENT	Rajasthan	North West	Management	2
SASI INSTITUTE OF TECHNOLOGY & ENGINEERING	Andhra Pradesh	South Central	Management	2

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LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
KLS INSTT. OF MGT., EDUCATION & RESEARCH	Karnataka	South West	Management	2
PAAVAI ENGINEERING COLLEGE	Tamil Nadu	Southern	Management	2
DAYANANDA SAGAR COLLEGE OF ARTS,SCIENCE & COMMERCE	Karnataka	South West	Management	2
ARYA INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Management	2
INTERNATIONAL INSTITUTE FOR SPECIAL EDUCATION	Uttar Pradesh	Northern	Management	2
GOVERNMENT POLYTECHNIC, UTTARKASHI	Uttarakhand	Northern	Management	2
ABACUS INSTITUTE OF COMPUTER APPLICATION	Maharashtra	Western	Management	2
DR. PANJABRAO DESHMUKH INSTITUTE OF MANAGEMENT TECHNOLOGY & RESEARCH, DHANWATE NATIONAL COLLEGE	Maharashtra	Western	Management	2
INDO GLOBAL COLLEGE OF ENGINEERING	Punjab	North West	Management	2
JSS ACADEMY OF TECHNICAL EDUCATION	Uttar Pradesh	Northern	Management	2
INSTITUTE OF MANAGEMENT STUDIES, ROORKEE	Uttarakhand	Northern	Management	2
KURUKSHETRA INSTITUTE OF TECHNOLOGY & MANAGEMENT	Haryana	North West	Management	2
MAR ATHANASIOS COLLEGE FOR ADVANCED STUDIES TIRUVALLA (MACFAST)	Kerala	South West	Management	1
SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT, RAMDEO TEKDI, GITTIKHADAN, KATOL ROAD, NAGPUR	Maharashtra	Western	Management	1
ANDHRA MAHILA SABHA SCHOOL OF INFORMATICS	Andhra Pradesh	South Central	Management	1
VELAMMAL ENGINEERING COLLEGE (ENGG. & TECH)	Tamil Nadu	Southern	Management	1
G.H. PATEL POSTGRADUATE INSTITUTE OF BUSINESS MANAGEMENT	Gujarat	Central	Management	1
PGP COLLEGE OF ENGINEERING AND TECHNOLOGY	Tamil Nadu	Southern	Management	1
IIMT ENGINEERING COLLEGE	Uttar Pradesh	Northern	Management	1
SHREE CHANAKYA EDUCATION SOCIETY'S INDIRA COLLEGE OF ENGINEERING AND MANAGEMENT	Maharashtra	Western	Management	1
DON BOSCO INSTITUTE OF TECHNOLOGY	Karnataka	South West	Management	1
ACROPOLIS INSTITUTE OF TECHNOLOGY AND RESEARCH	Madhya Pradesh	Central	Management	1
SARADA INSTITUTE OF SCIENCE TECHNOLOGY AND MANAGEMENT	Andhra Pradesh	South Central	Management	1
INSTITUTE OF AERONAUTICAL ENGINEERING	Andhra Pradesh	South Central	Management	1

*Names are given in alphabetical order

Institute name	State	AICTE region	Subject Stream	Category
SRI VENKATESA PERUMAL COLLEGE OF ENGINEERING & TECHNOLOGY	Andhra Pradesh	South Central	Management	1
RIMT-INSTITUTE OF ENGINEERING AND TECHNOLOGY	Punjab	North West	Management	1
MOODLAKATTE INSTITUTE OF TECHNOLOGY	Karnataka	South West	Management	1
SHANKARA INSTITUTE OF TECHNOLOGY	Rajasthan	North West	Management	1
SANKALCHAND PATEL COLLEGE OF ENGINEERING, VISNAGAR	Gujarat	Central	Management	1
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Management	1
PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY	Gujarat	Central	Management	1
JODHPUR INSTITUTE OF ENGINEERING & TECHNOLOGY	Rajasthan	North West	Management	1
BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY	Delhi	North West	Management	1
R D ENGINEERING COLLEGE	Uttar Pradesh	Northern	Management	1
AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Management	1
AMBEDKAR INSTITUTE OF MANAGEMENT STUDIES	Andhra Pradesh	South Central	Management	1
ABS ACADEMY OF SCIENCE,TECHNOLOGY & MANAGEMENT	West Bengal	Eastern	Management	1
HOLY GRACE ACADEMY OF MANAGEMENT STUDIES	Kerala	South West	Management	1
ENTREPRENEURSHIP DEVELOPMENT INSTITUTE OF INDIA	Gujarat	Central	Emerging management	3
LAL BAHADUR SHASTRI INSTITUTE OF MANAGEMENET, DELHI	Delhi	North West	Emerging management	3
ERA BUSINESS SCHOOL	Delhi	North West	Emerging management	3
PRIN L N WELINGKAR INSTITUTE OF MANAGEMENT DEVELOPMENT & RESEARCH	Karnataka	North West	Emerging management	3
JAGANNATH INTERNATIONAL MANAGEMENT SCHOOL	Delhi	North West	Emerging management	3
GALGOTIAS BUSINESS SCHOOL	Uttar Pradesh	Northern	Emerging management	3
SARDAR VALLABHBHAI PATEL INTSITUTE OF TEXTILES MANAGEMENT	Tamil Nadu	Southern	Emerging management	3
NORTHERN INSTITUTE FOR INTEGRATED LEARNING IN MANAGEMENT (NIILM)	Uttar Pradesh	Northern	Emerging management	3
C K SHAH VIJAPURWALA INSTITUTE OF MANAGEMENT	Gujarat	Central	Emerging management	3
GREEN HEAVEN INSTITUTE OF MANAGEMENT & RESEARCH	Maharashtra	Western	Emerging management	3
INTERNATIONAL SCHOOL OF INFORMATICS & MANAGEMENT	Rajasthan	North West	Emerging management	3
REGIONAL COLLEGE OF MANAGEMENT AUTONOMOUS	Orissa	Eastern	Emerging management	2

*Names are given in alphabetical order

APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
TRINITY COLLEGE FOR MANAGEMENT AND TECHNOLOGY	Uttar Pradesh	Northern	Emerging management	2
INDIRA SCHOOL OF BUSINESS STUDIES	Maharashtra	Western	Emerging management	2
NATIONAL INSURANCE ACADEMY	Maharashtra	Western	Emerging management	2
ACROPOLIS FACULTY OF MANAGEMENT & RESEARCH	Madhya Pradesh	Central	Emerging management	2
INDIRA INSTITUTE OF MANAGEMENT	Maharashtra	Western	Emerging management	2
"INSTITUTE OF MARKETING & MANAGEMENT - BUSINESS SCHOOL"	Delhi	North West	Emerging management	2
INSTITUTE OF PUBLIC ENTERPRISE	Andhra Pradesh	South Central	Emerging management	2
SRI KRISHNA INSTITUTE OF MANAGEMENT	Tamil Nadu	Southern	Emerging management	2
JAIPURIA INSTITUTE OF MANAGEMENT, INDORE	Madhya Pradesh	Central	Emerging management	2
INSTITUTE OF BUSINESS MANAGEMENT AND RESEARCH	Madhya Pradesh	Central	Emerging management	2
LEAD COLLEGE OF MANAGEMENT	Kerala	South West	Emerging management	2
INSTITUTE OF FINANCE & INTERNATIONAL MANAGEMENT	Karnataka	South West	Emerging management	2
INSTITUTE FOR FUTURE EDUCATION, ENTREPRENEURSHIP AND LEADERSHIP	Maharashtra	Western	Emerging management	2
PRESTIGE INSTITUTE OF INSTITUTE OF MANAGEMENT AND RESEARCH	Madhya Pradesh	Central	Emerging management	2
DATTA MEGHE INSTITUTE OF MANAGEMENT STUDIES	Maharashtra	Western	Emerging management	2
MIT SCHOOL OF BUSINESS	Maharashtra	Western	Emerging management	2
C.K. COLLEGE OF ENGINEERING & TECHNOLOGY	Tamil Nadu	Southern	Emerging management	2
DAYANANDA SAGAR BUSINESS SCHOOL	Karnataka	South West	Emerging management	2
THIAGARAJAR SCHOOL OF MANAGEMENT	Tamil Nadu	Southern	Emerging management	2
SAKTHI INSTITUTE OF INFORMATION AND MANAGEMENT STUDIES	Tamil Nadu	Southern	Emerging management	2
CONTINENTAL INSTITUTE OF ENGINEERING AND TECHNOLOGY	Punjab	North West	Emerging management	2
INSTITUTE OF ENGINEERING & MANAGEMENT	West Bengal	Eastern	Emerging management	2
AISSMS INSTITUTE OF MANAGEMENT	Maharashtra	Western	Emerging management	2
MARWADI EDUCATION FOUNDATION'S GROUP OF INSTITUTIONS	Gujarat	Central	Emerging management	2
INNOCENT HEARTS GROUP OF INSTITUTIONS	Punjab	North West	Emerging management	2

*Names are given in alphabetical order

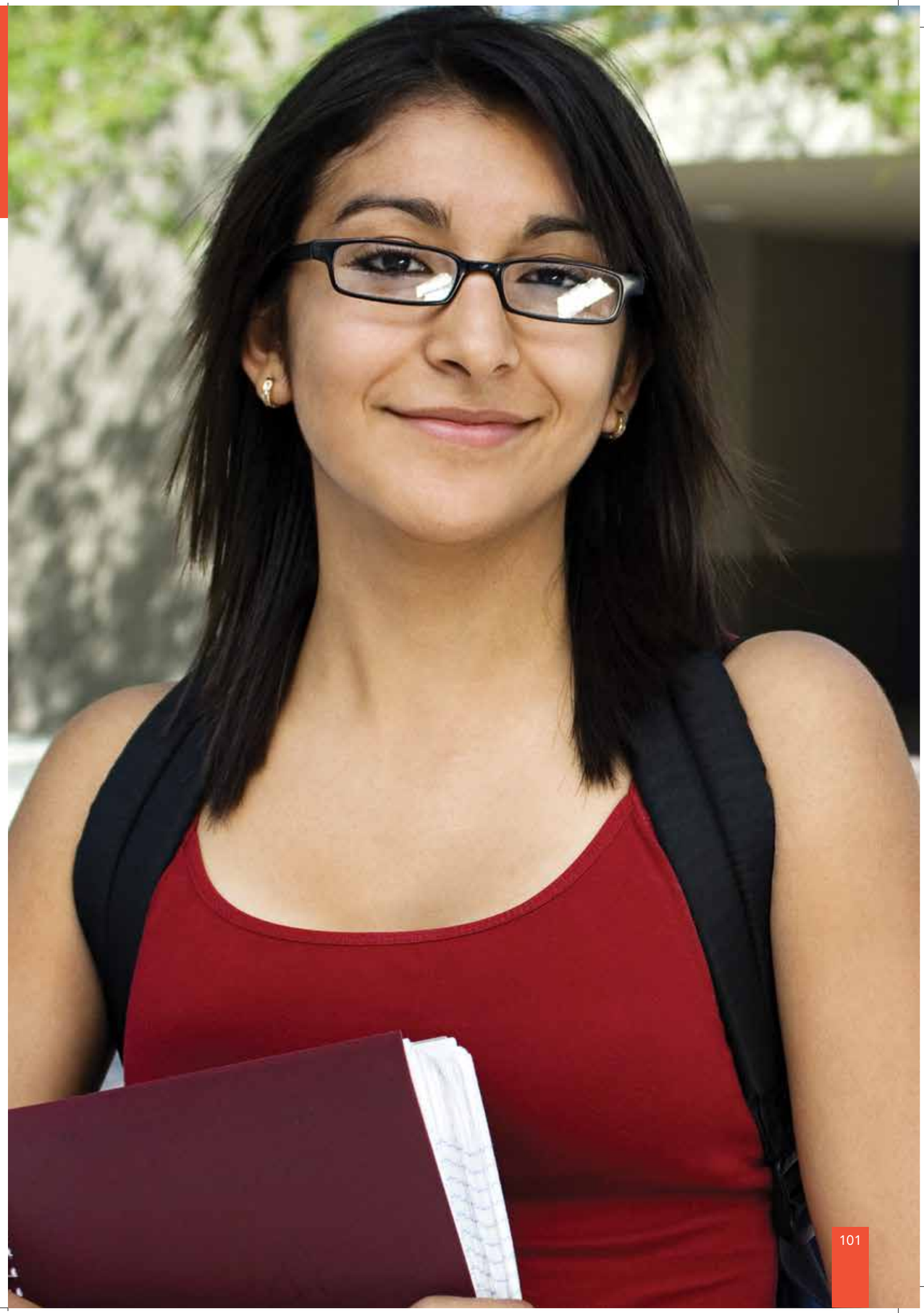
Institute name	State	AICTE region	Subject Stream	Category
BHARATHIDASAN SCHOOL OF BUSINESS	Tamil Nadu	Southern	Emerging management	2
DR. VIRENDRA SWARUP INSTITUTE OF PROFESSIONAL STUDIES	Uttar Pradesh	Northern	Emerging management	2
AKS MANAGEMENT COLLEGE	Uttar Pradesh	Northern	Emerging management	2
VIVEKANANDA COLLEGE OF TECHNOLOGY & MANAGEMENT, ALIGARH	Uttar Pradesh	Northern	Emerging management	2
KCL INSTITUTE OF MANAGEMENT AND TECHNOLOGY	Punjab	North West	Emerging management	2
DIVINE INTERNATIONAL GROUP OF INSTITUTIONS	Madhya Pradesh	Central	Emerging management	2
ABHINAV HI-TECH COLLEGE OF ENGINEERING	Andhra Pradesh	South Central	Emerging management	2
DATTA MEGHE INSTITUTE OF ENGINEERING TECHNOLOGY AND RESEARCH	Maharashtra	Western	Emerging management	2
INSTITUTE OF MANAGEMENT STUDIES, ROORKEE	Uttarakhand	Northern	Emerging management	2
KATHIR COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Emerging management	2
GCRG MEMORIAL TRUST'S GROUP OF INSTITUTIONS	Uttar Pradesh	Northern	Emerging management	2
SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT, RAMDEO TEKDI, GITTIKHADAN, KATOL ROAD, NAGPUR	Maharashtra	Western	Emerging management	1
GIRIDEEPAM INSTITUTE OF ADVANCED LEARNING	Kerala	South West	Emerging management	1
IIMT ENGINEERING COLLEGE	Uttar Pradesh	Northern	Emerging management	1
RAJALAKSHMI INSTITUTE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging management	1
JKK MUNIRAJAH COLLEGE OF TECHNOLOGY	Tamil Nadu	Southern	Emerging management	1
AMRITSAR COLLEGE OF ENGINEERING & TECHNOLOGY, AMRITSAR	Punjab	North West	Emerging management	1
SRI VENKATESHWARA COLLEGE OF ENGINEERING	Karnataka	South West	Emerging management	1
GANGA INSTITUTE OF TECHNOLOGY AND MANAGEMENT	Haryana	North West	Emerging management	1
KOTTAM KARUNAKARA REDDY INSTITUTE OF TECHNOLOGY	Andhra Pradesh	South Central	Emerging management	1
DEVENDER SINGH INSTITUTE OF TECHNOLOGY AND MANAGEMENT	Uttar Pradesh	Northern	Emerging management	1
KOSHYS INSTITUTE OF MANAGEMENT STUDIES	Karnataka	South West	Emerging management	1
SHRI SITARAMBHAI NARANJI PATEL INSTITUTE OF TECHNOLOGY, MANAGED BY VIDYABHARTI TRUST, UMRAKH -BARDOLI	Gujarat	Central	Emerging management	1
DAYANANDA SAGAR COLLEGE OF ENGINEERING	Karnataka	South West	Architecture	N/A
R.V. COLLEGE OF ENGINEERING	Karnataka	South West	Architecture	N/A

*Names are given in alphabetical order

APPENDICES

LIST OF INSTITUTES WHICH PARTICIPATED IN THE SURVEY

Institute name	State	AICTE region	Subject Stream	Category
THIAGARAJAR COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Architecture	N/A
GOVERNMENT WOMEN'S POLYTECHNIC COLLEGE BHOPAL	Madhya Pradesh	Central	Architecture	N/A
RAJIV GANDHI INSTITUTE OF TECHNOLOGY,KOTTAYAM	Kerala	South West	Architecture	N/A
AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING	Tamil Nadu	Southern	Architecture	N/A
DEENBANDHU CHHOTU RAM UNIVERSITY OF SCI AND TECH	Haryana	North West	Architecture	N/A
SRI RAMACHANDRA COLLEGE OF PHARMACY	Tamil Nadu	Southern	Pharmacy	N/A
BOMBAY COLLEGE OF PHARMACY	Maharashtra	Western	Pharmacy	N/A
K. M. COLLEGE OF PHARMACY	Tamil Nadu	Southern	Pharmacy	N/A
ACHARYA & B M REDDY COLLEGE OF PHARMACY	Karnataka	South West	Pharmacy	N/A
I.S. F. COLLEGE OF PHARMACY	Punjab	North West	Pharmacy	N/A
SINHGAD TECHNICAL EDUCATION SOCIETY'S SINHGAD COLLEGE OF PHARMACY	Maharashtra	Western	Pharmacy	N/A
INSTITUTE OF CHEMICAL TECHNOLOGY	Maharashtra	Western	Pharmacy	N/A
POONA COLLEGE OF PHARMACY, ERANDWANE, PUNE	Maharashtra	Western	Pharmacy	N/A
COLLEGE OF PHARMACY, IPS ACADEMY, INDORE	Madhya Pradesh	Central	Pharmacy	N/A
PES COLLEGE OF PHARMACY	Karnataka	South West	Pharmacy	N/A
B. R. NAHATA COLLEGE OF PHARMACY	Madhya Pradesh	Central	Pharmacy	N/A
MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES	Karnataka	South West	Pharmacy	N/A
COLLEGE OF PHARMACY, MADRAS MEDICAL COLLEGE	Tamil Nadu	Southern	Pharmacy	N/A
VNS GROUP OF INSTITUTIONS	Madhya Pradesh	Central	Pharmacy	N/A
AISSMS COLLEGE OF PHARMACY	Maharashtra	Western	Pharmacy	N/A
SRI VENKATESHWARA COLLEGE OF PHARMACY	Andhra Pradesh	South Central	Pharmacy	N/A
SATARA COLLEGE OF PHARMACY,SATARA.	Maharashtra	Western	Pharmacy	N/A
BAPATLA COLLEGE OF PHARMACY	Andhra Pradesh	South Central	Pharmacy	N/A
ROLAND INSTITUTE OF PHARMACEUTICAL SCIENCES	Orissa	Eastern	Pharmacy	N/A
AL AMEEN COLLEGE OF PHARMACY	Karnataka	South West	Pharmacy	N/A
GOVERNMENT POLYTECHNIC, UTTARKASHI	Uttarakhand	Northern	Pharmacy	N/A



APPENDICES

JURY PROFILES

Dr. Y. S. Rajan
Dr Vikram Sarabhai Distinguished Professor, ISRO

Dr Rajan has a proven track record of excellence as a Scientist, Technologist, Administrator, Organization Builder and Leader, Diplomat, Academic, Writer and Poet. He combines a unique ability for original and innovative thinking with strong implementation skills. He has the capability to network with multi-disciplinary and multi-cultural groups. He has wide international experience and was responsible for a large number of cooperative projects between India and other countries. He has led Indian delegations to the United Nations (UN) and has visited about 40 countries in all continents as a part of cooperative efforts in science, technology and business.

As Vice-Chancellor, Punjab Technical University (2002-2004), he introduced key initiatives to improve the internal processes and the external interfaces of the university. He continues to be visiting faculty, board member and advisor to various renowned Indian academic institutions. He is also a prolific writer and has written on a variety of subjects, including on science, technology, business, youth and leadership, social and ethical issues. He has authored and co-authored a number of books and has contributed to several others. Till recently he was Principal Adviser, CII. He holds several other positions in institutions and academies. At present he is Dr Vikram Sarabhai Distinguished Professor, Indian Space Research Organisation (ISRO).

Dr. Naushad Forbes
Chairman, CII National Committee on Higher Education & Director,
Forbes Marshall Private Limited

Dr Naushad Forbes is Director of Forbes Marshall, India's leading steam engineering & control instrumentation company, where he leads the steam engineering business. He is also the Chairman of CII's National Committee on Higher Education where he is spearheading various policy and industry-related issues in higher education.

He received his Bachelors, Masters and PhD degrees from Stanford University in Industrial Engineering and History.

He was a Consulting Professor in the Management Science & Engineering program at Stanford University from 1987 to 2004. His publications include a book authored with David Wield, From Followers to Leaders: Managing Technology in Newly Industrializing Countries.

Dr Forbes is on the board of Kirloskar Engines India Ltd, Godrej Industries Limited, Tata Autocomp Systems Limited, National Institute of Industrial Engineering, Ruby Hall Hospital, Jump Associates LLC, California, IIT Bombay. He was also the Chairman of the Confederation of Indian Industry (Western Region) in 2009-10 and Chairman of CII National Innovation Committee between 2010 and 2012.

Dr. R. Natarajan
Chairman, Board for IT Education Standards of Karnataka & Co-Chairman,
Engineering Education Forum of Indian National Academy of Engineering

Prof. R. Natarajan has been the Chairman of the All India Council for Technical Education. He has also served as the Director of the Indian Institute of Technology, Madras from 1995 to 2001. He has worked as a National Research Council Research Fellow in Canada, and as a Humboldt Research Fellow in Germany. He served as the Vice-President of the Indian National Academy of Engineering (INAE) during 2002-2006, and was nominated to the Board of the Council of Academies of Engineering and Technological Sciences (CAETS) in 2006. He served as the Chairman of the Research Council of the Central Fuel Research Institute, Dhanbad, during 1995-2005.

He is at present the Co-Chairman of the Engineering Education Forum of the Indian National Academy of Engineering (INAE) and the Chairman of the Board for IT Education Standards of Karnataka. He received his Ph.D and M.A. Sc degrees from the University of Waterloo, Canada. He was awarded Distinction in the M.E. Degree Program of the Indian Institute of Science, Bangalore. He secured the First Rank in the B.E. Degree Examination of the Mysore University in 1961. His areas of expertise are combustion, propulsion, energy and engineering education.

He has been conferred honorary doctorate degrees by the University of South Australia, Jawaharlal Nehru Technological University (Andhra Pradesh), Kanpur University (Uttar Pradesh), Nagarjuna University (Andhra Pradesh), and Purvanchal University (Uttar Pradesh).

Dr. Prahlada
Vice-Chancellor, Defence Institute of Advanced Technology, Pune

Dr. Prahlada was formerly a Distinguished Scientist and Chief Controller, Research & Development at Defence Research and Development Organization, Ministry of Defence, Government of India at New Delhi.

Dr. Prahlada got his degree in Mechanical Engineering from Bangalore University, Post-Graduation in Aeronautics from IISc, Bangalore and Ph.D. from JNTU, Hyderabad. Since 1971 he has served in various ISRO and DRDO Establishments. He has worked in the position of Project Director for the mobile surface to air area defence missile system, AKASH, Director of the biggest DRDO laboratory, DRDL, Programme Director for the Joint Venture Missile Project-(Indo-Russian) BrahMos and Chief Controller Research & Development at DRDO Headquarters.

Dr. Prahlada is a Fellow of Andhra Pradesh Academy of Sciences, Indian National Academy of Engineering, Astronautical Society of India, Institution of Electronics and Telecommunication Engineers and a Managing Trustee of Trust for Advancement of Aerodynamics of India.

APPENDICES

JURY PROFILES

Dr. Raju Chandrasekar
Founder & Director, World Development Foundation (WDF)

Dr. Chandrasekar has been involved in all aspects of WDF's development since 1991. He is also one of the founders of the World Energy Forum in New York, USA. He is a Senior Executive, Management Practitioner and Academician. Dr. Chandrasekar began his development career at the United Nations (UN), led assignments in Lesotho, Jordan, India and Thailand.

He is an inspection team member of the National Assessment and Accreditation Council (NAAC) of UGC and has also served as the Chairman and as an expert with the National Board of Accreditation (NBA) of AICTE.

Dr. Chandrasekar holds a B.E. (Hons) in E&C Engineering and a B.E. in Industrial Engineering, a PGDIT from the Indian Institute of Foreign Trade, an MBA from Bangalore University and a PhD in Management from Pondicherry Central University. His PhD thesis was a global study covering 25 countries focusing on their Export and Trade Promotion Polices in finance and business development. He is proficient in six languages including Arabic.

Mr. Sanjiv Lal
Vice President, Tata Chemicals Ltd.

Mr. Sanjiv is a B. Tech in Chemical Engineering. He graduated from IIT Delhi in 1983. He has worked in the area of specialty chemicals, business development and fertilizer operations earlier with Hindustan Lever Ltd and at present with Tata Chemicals. Sanjiv has headed the site operations of the phosphates manufacturing facility of the company at Haldia in West Bengal and the chemicals operations at Mithapur.

Prior to his being seconded as the Joint Managing Director of the company's phosphates JV in Morocco in 2010, Sanjiv was responsible for the agri retail business of Tata Chemicals. In his current position, which he holds since May 2012, Sanjiv is responsible for organizational transformation.

Dr. M. J. Zarabi
Fellow and Former Vice-President, Indian National Academy of Engineering

Dr. Zarabi, born in August 1947, has had a consistently distinguished academic record. His doctoral work represented excellence in engineering research for which he was awarded the 'Alumini Medal' by the Indian Institute of Science, Bangalore towards the best Ph.D. thesis of the year. With an equally impressive record of industrial achievements, Dr. Zarabi has been synonymous with the microelectronics activity in India for more than three decades.

He was the Chairman and Managing Director of India's premier integrated chip manufacturing and R&D company, Semiconductor Complex Ltd. (SCL), from June 1993 to August 2005. Prior to that he was the Head of Research & Development and Executive Director in-charge of both R&D and VLSI manufacturing operations of the company. He launched and successfully led a number of technology development projects which have resulted in the development of an indigenous capability in meeting India's strategic requirements in the vital area of microelectronics.

As SCL's Chairman & Managing Director, Dr. Zarabi was responsible in building a modern VLSI fabrication facility in 1997. Under his stewardship, SCL also established the only Galium Arsenide Enabling Technology Centre for the Defence Research & Development Organization to manufacture Monolithic Microwave Integrated Circuits.

In addition to a number of research publications, Dr. Zarabi has co-authored a book on Electron Devices that gives a unique treatment to the subject and also co-authored an IETE Series book on Microelectronics. He has also been one among those few who have philosophized on the future of microelectronics early on, having been a proponent of physics-to-Function approach for the next breakthrough in microelectronics. Dr. Zarabi is a fellow and former Vice President of the Indian National Academy of Engineering, Fellow National Academy of Sciences, India and Fellow Institution of Electronics and Telecommunication Engineers, India.

Upon superannuating from Semiconductor Complex Ltd. in August 2005, Dr. Zarabi joined Samtel as Executive Director Technology to provide strategic inputs in the Company's efforts of technology development in newer areas for diversification. In May 2007 he turned into a freelance Consultant in which capacity he has / has been advising Samtel, Infineon Technologies and Solar Semiconductors on matters relating to technology and business development.

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JURY PROFILES

Prof. S. Narayanan
Fellow, Indian National Academy of Engineering & Professor, Department of Mechanical Engineering,
Indian Institute of Technology Madras

Prof S. Narayanan has a B.E. degree in Mechanical Engineering from the Madras University (GCT, Coimbatore), M.Tech and Ph.D. degrees in Aeronautical Engineering from IIT Kanpur. He has been teaching for the past 43 years briefly in the Aeronautical Engineering Department of IIT Kanpur and mostly in the Applied Mechanics and Mechanical Engineering Departments of IIT Madras. He is at present Professor Emeritus at IIT Madras. He served as the Dean, Academic Research of IIT Madras for six years (2000-2006).

Prof. Narayanan was awarded the prestigious Alexander Von Humboldt Post Doctoral Fellowship, Germany and the Dr. S. Bhagavantham award of the Acoustical Society of India in 2003 for his contributions and leadership in the area of Acoustics for the years 2001-2002. He also received the Silver Medal from the Madras Regional chapter of the Acoustical Society of America. He was also a Visiting Research Faculty at the Department of Mechanical Engineering, Concordia University, Montreal, Canada.

His areas of research include Vibration, Acoustics, Nonlinear and Random Vibration and Chaos, Vehicle Dynamics. He has guided 21 Ph.D., 14 M.S. research scholars and 80 M. Tech. students for their theses work. He has published more than 110 papers in international journals and 130 papers in conference proceedings. He is the co-author of the book “Applications of Random Vibration” published jointly by (Narosa / Springer-Verlag.) He is the co-editor of the proceedings of the IUTAM symposium on Nonlinearity and Stochastic Structural Dynamics (Kluwer Academic Publishers).

He is an elected Fellow of the Indian National Academy of Engineering, (INAE), a Fellow of the Aeronautical Society of India and a Fellow of the Acoustical Society of India. He served as the President of the Acoustical Society of India and President of the Madras Chapter of the Aeronautical Society of India.

He has coordinated a number of continuing education programmes, carried out a number of sponsored research projects sponsored by ARDB, ISRO, NPOL, Naval Research Board, IGCAR, DRDO, CPRI and a number of industrial consultancy projects.

Dr. N. Sambandam
Chairman, All India Board of Management Studies

Dr. N. Sambandam has over four decades of academic and industry experience in India, Belgium, Brazil and Canada. He has taught at University of Toronto (Canada), PUC, Rio de Janeiro (Brazil) and College of Engineering Guindy (Anna University), Chennai. He has been Visiting Faculty at Indian Institute of Management, Indore; IIT Bombay; National Institute of Construction Management & Research, Pune; SP Jain Institute of Management & Research, Mumbai and Indian Institute of Information Technology & Management, Gwalior; IBS, Mumbai; and Goa Institute of Management, Goa.

He has done 30 industrial consultancies and 40 management development programmes. He has organized 10 national / international conferences and published 80 papers in national & international journals. He provides research support as reviewer to IJOMAS, IE Journal, Udyog Pragati, Journal of Scientific & Industrial Research and Journal of Operational Research Society of India.

He set up CAD / CAM Lab and Advanced Manufacturing Center of Excellence under Ministry of Human Resource Development and Department of Science & Technology. He has been the Chairman of All India Board of Management Studies since December 2009. He is the recipient of Life Time Excellence Award in recognition of outstanding service to the field of Industrial Engineering, Outstanding Management Teacher of the Year Award (2007-2008), Best Professor in Operations Management Award (2010) and Director’s citation for the Exemplary Service at NITIE.

He is also recipient of Fellowship Award from IIIE. He has been in administrative and policy making services as deputy director, dean (academic), dean (programme and consultancy), dean (research) and chairman, board of research. He has guided 6 PhDs, 500 post-graduate projects and is guiding two more PhDs.

APPENDICES

JURY PROFILES

Dr. N. C. Shivaprakash
Professor, Indian Institute of Science, Bangalore

Dr. N C Shivaprakash from department of instrumentation, Indian Institute of Science, Bangalore, is a scientist. His fields of interest are electronic instrumentation, analytical instrumentation and embedded systems. Born in1955, he did his B. Sc (1976) and M. Sc (1978) from Mysore University. He passed his M. Sc examination with first rank and five gold medals. He received his Ph.D degree in 1982, also from Mysore University. He is a recipient of Young Scientist Award (1983) of the Karnataka Association for Advancement of Science. After a brief stay at Mysore University as a lecturer, he joined the Indian Institute of Science in 1983. Over the past 34 years of research career, he has presented over 100 papers in international and national journals and conferences.

Dr. P. O. J. Lebba
Formal Principal, TKM College of Engineering, Kollam

Prof Lebba is the General Secretary of Muslim Educational Society, a movement started 1964 for educational upliftment of socially and educationally backward people. He did B.Sc. Engineering (Electrical Engineering) from Kerala University (1958) and M. Tech. (Electrical Machines) from Indian Institute of Technology, Bombay (1964). He has also served as the Vice-President of Indian Society for Technical Education and Director of Kerala Minerals & Metals Ltd., (a government of Kerala undertaking).

Prof Lebba has held many important positions including that of Consultant to Ministry of HRD, Government of India and to All India Council for Technical Education (Southern Regional Office, Shastri Bhavan, Chennai). He was the Principal of TKM College of Engineering, Kollam, Kerala and has been the Dean, Faculty of Engineering and Technology at the University of Chennai.

He has been a member of Executive Committee and Governing Body of Energy Management Centre, Government of Kerala, Governing Body, SIT Tumkur (AICTE nominee) and governing body, MES College of Engineering, Kuttippuram. Prof. Lebba is a Patron and Past President of Energy Conservation Society (a non-governmental organization committed to energy conservation and protection of environment established in 1992).

Dr. Yashwant V Joshi
Professor, SGGS Institute of Engineering and Technology

Prof. Y V Joshi graduated in 1986 in Electronics Engineering from Marathwada University, Aurangabad and completed M. E. Electronics in the year 1991 also from the same university. In 1998 he did his PhD From IIT Delhi in Electrical Engineering. Prof Joshi started his career in teaching at SGGS Institute of Engineering and Technology in 1986 as Lecturer and became Assistant Professor in 1993. He became professor in 2001 at the same institute.

He has served as the Head of Department of Electronics and Telecommunication Engineering. He became the first Dean, Academics in 2004 and established flexible academic system at SGGS Institute. He served as Director of Walchand College of Engineering Sangli from 2009 to 2013, one of the oldest institutes in Maharashtra.

He has guided more than 30 M.Tech dissertations and 4 Ph.D thesis. Eight of his students are working for their PhD at Nanded University. He is a life member of ISTE and a member of IEEE. He teaches and conducts research in the areas of signal / image processing and VLSI.

JURY PROFILES

Dr. Jayrajsinh Dilavarsinh Jadeja
Head and Dean, Faculty of Management Studies, M.S. University of Baroda

Dr. Jadeja is a professor of marketing. He has worked as a junior commercial officer at Elecon Engineering Co. Ltd. and as a regular faculty for over nine years. He has teaching experience as lecturer at the Bachelor of Business Administration (BBA) programme at B.J.Vanijya Mahavidyalaya, Sardar Patel University, Gujarat and as a Reader in Marketing, Faculty of Management Studies, M. S. University of Baroda, Gujarat.

He has been a trustee member, Gujarat School Quality Accreditation Council, a member of Academic Planning Board, M.S. University of Baroda. He helped Indian Institute of Teacher Education (IITE) in developing a course curriculum on Post-Graduate Diploma in Education Management. He is a member, Board of Studies and Member of Faculty Board, Faculty of Management Studies, M.S. University of Baroda and Indian Institute of Materials Management, New Delhi, India-National Chapter (2009-2011). He was Dean of Students, Faculty of Management Studies, M.S. University, Baroda, 1992 to 1995 and 1997 onwards. He has been the Director on Board for Central Gujarat Cotton Dealers Association, Baroda.

He was awarded The Best Professor of Marketing by ET Now in National Education Leadership Awards. He has served as a visiting and a guest faculty in several institutes including Indira Gandhi Open University (Ignou), Sardar Patel University and G.H.Patel College of Pharmacy. He has presented research papers at several podiums including Amsterdam Graduate Business School, University of Amsterdam, Netherlands, Indian Institute of Management, Ahmedabad and Association of Indian Management School.

Dr. Omprakash Gopal Kakde
Director, VJTI, Mumbai

Dr. Kakde is Director at VJTI, Mumbai since June 2012. Before joining VJTI he was Dean (R&D) and Professor of Computer Science Engineering at Visvesvaraya National Institute of Technology, Nagpur. He has a total experience of 24 years in the academic field and has many research papers and books in his name.

Been associated with Nagpur University as Chairman, Board of Studies (IT), Dr Kakde is also a Member of Senate at VNIT and Member of Doctoral Research Committee at CSVTU. He has demonstrable experience of handling quality issues, assessment and accreditation procedures and has experience in guiding Ph.D students.

He did his B.E. (Electronics & Power Engineering) from Nagpur University, V.N.I.T. (formerly V.R.C.E.) and M.Tech in Computer Science Engineering from IIT-Mumbai. He has done M.A. in public administration from Nagpur University and also holds a doctorate from the Nagpur University.

Dr. Prakash Manoharrao Khodke
Director, Maharashtra State Board of Technical Education

Dr. Prakash Manoharrao Khodke, born in 1960, and Principal of Government College of Engineering, is at present on deputation on the post of Director, Maharashtra State Board of Technical Education, Mumbai. He did B.E. (Mechanical) in 1982 and acquired his M.Tech and Ph.D both in Mechanical Engineering in 1988 and 1995, respectively, from Visweswarayya Regional College of Engineering, Nagpur. Dr Khodke also has a Management degree. He has 29 years of teaching experience at under-graduate, post-graduate and Ph.D. level.

He has published several papers, out of which 14 are in international journals and 16 in national journals. He has two patents to his credit. He is recipient of several awards and recognitions.

JURY PROFILES

Mr. Pradeep Murlidhar Bhosekar
General Manager – Training, Godrej Industries Ltd

Mr Bhosekar has been working at the Godrej & Boyce Mfg. Co. Ltd. Mumbai in various functions like customer service, purchase and human resource for 32 years now. He is heading the corporate training centre of the organization. Technical training is organized here for technicians, workmen, operators and engineers on subjects like CNC programming, hydraulics, pneumatics, welding, fitting, etc. as per the needs of the manufacturing plants in Vikhroli.

He is a member of 12 professional and academic bodies including Board of Governors for Board of Apprenticeship Training (BOAT), Western Region; CII National Committee on Skill Development; Chairman – Institute Management Committee (IMC) Government ITI, Kurla, Mumbai; Chairman – IMC – Government ITI, Ambernath, District Thane; Board of Studies–Sardar Patel College of Engineering, Mumbai.

Mr. R. Ramakrishnan
Vice-President, Cetex Petrochemicals

Mr. R. Ramakrishnan is a Post Graduate in Chemical Engineering with specialization both in Petroleum Refinery Engineering and Petrochemicals. He started his career in July 1977 as an Engineer Trainee with Indian Oil Corporation Ltd.

Starting his career in Gujarat Refinery, he has served for 12 years in Indian Oil Refineries at Mathura and Guwahati in different departments such as Process / Operations / Projects. He has with him the distinct benefit of acquiring experience for 3 years in Indian Oil's World Class R&D centre at Faridabad. He has a long inning of 13 years in marketing of Special Products and Petrochemicals and formulating Policies including supply chain management in Lube blending Operations. He had four year tenure in Corporate Planning Department responsible for drafting MoUs of Indian Oil with the Govt. of India.

Prior to superannuation from Corporate Office of Indian Oil, he was General Manager (Business Development) scouting for Global Business Opportunities in the Down Stream sector of hydrocarbon industry including offering Consultancy & Training services. As an approved training faculty, he has handled class room training to the executives of Kuwait Petroleum Corporation at Kuwait. He has also represented Country's Oil Industry as a speaker in Abu Dhabi in International Conference on Paradigm shift of National Oil Companies (NOC) from International Oil Companies (IOC). He was one of the Hydrocarbon industry delegates to visit Angola (Luanda) to explore the possibilities of participation in the upcoming Refinery. He has rendered assistance as a coordinator from Indian oil to ministry of petroleum and natural gas in conducting the 1st & 2nd India-Africa Hydrocarbon Conferences including B2B Meetings at New Delhi in 2009 & 2012. He was a regular faculty to Indian Oil's fresh management trainees' Induction programmes from 2007 to 2012.

Since June 2012, after his superannuation from Indian Oil, he joined Cetex Petrochemicals Ltd, Chennai as its General Manager (Business Development) and is currently its Vice-President. He has been regularly interacting with academia, in giving seminar to students of SSN engineering College, Chennai and Velammal Engineering College, Chennai on Hydrocarbon Project Management and Energy topics and also a mentor to Graduate Engineer Trainees joining Cetex Petrochemicals Ltd.

APPENDICES

JURY PROFILES

Mr. Mayank Ajay Gupta
Past Chairman, CII Western UP Zonal Council and Managing Director & CEO, Olympic Zippers Ltd

Mr Mayank Ajay Gupta is a young and energetic Managing Director of Olympic Zippers Limited, a pioneer in manufacturing of polyester monofilament yarns and zippers in India. He was the Chairman of CII Uttar Pradesh Western Zone in 2011. During his tenure the region increased the membership base tremendously and held various programs for the benefit of the industry at large. He is now the elected member of CII UP State Council and also a member of CII Northern Regional Committee.

He is a graduate from Shri Ram College for Commerce, M.Com, C.A (T), IIM Bangalore alumni and has attended several workshops related to Six Sigma, TQM, Cost Management, 5S, Kaizen etc under the banner of CII.

Mr. Vinod Sharma
Chairman, CII ICTE Manufacturing Committee & Managing Director, Deki Electronics Ltd

Mr Vinod Sharma is a successful entrepreneur. He has spent 20 passionate years in shaping Deki Electronics Limited into a world class film capacitor manufacturer. Enthusiastic, value-based participative management and high levels of customer orientation have ensured an annual average growth in excess of 30 per cent over the past two decades.

He plays an active role in the electronics community in India– investing a substantial amount of time and effort in serving industry associations and representing the industry at several stakeholder interventions.

Mr Sharma is a keen trainer and consultant. He allocates a part of his time towards enhancing competitive management skills in managers, entrepreneurs and BSOs around the world. He has undertaken several training, audit and consultancy projects – in India, South Africa, Vietnam, Rwanda, Mozambique, Egypt, Kenya, Tanzania and Uganda. Mr Sharma has recently co-authored Value Magics – A New Roadmap to Global Markets with Mr Hans Verhulst.

Mr. Aniruddha Joshi
Head, Corporate Affairs, Sesa Sterlite Limited

Mr. Aniruddha Joshi is a B Tech (Mining Engineering) from IIT Kharagpur of 1978 batch and has a Mine Manager's Certificate. He worked at the mines of Rourkela Steel plant in Orissa till 1983. He started working in the mines of Visakhapatnam Steel Plant in Andhra from land acquisition to commissioning and brought them up to 85 per cent capacity till1992. He headed the mining operations of Sesa Goa in Goa till 2002 and got it certified to ISO9001 and 14001 which were first such certificates for mining in India. Mr Joshi headed marketing of Sesa Goa till 2010. At present he is heading corporate affairs department of iron ore business of Sesa Sterlite Ltd.

Dr. M.M. Sharma
Principal, Government Engineering College, Jhalawar &Principal,
Government Women Engineering College

After completing B.E. (Electrical Engineering) in 1985 Dr Sharma joined as Lecturer in the Department of Electrical Engineering at Malaviya National Institute of Technology (MNIT), Jaipur, in 1986. He did his M.Tech in Computer Technology from IIT Delhi and Ph.D from MNIT. At present he is on lien from MNIT and working as Principal, Government Engineering College, Ajmer, Rajasthan. He is handling additional charge of Principal, Government Women Engineering College in Ajmer and also of Principal, Government Engineering College, Jhalawar and Principal (additional charge), Government Engineering College, Banswara. He is also the Director, Centre for E-governance, Jaipur.

His area of research interest is microwave communication and he has published research papers in national, international conferences and in journals. He is a member of IEEE; Fellow IETE (India); Member, Broadcasting Engineering Society (India) and Life Member ISTE professional bodies.
He has completed various administrative responsibilities successfully. He has organized and felicitated many national and international conferences, conducted short term courses and faculty development programmes. He is a Member of State-Level Technical Committee, Government of Rajasthan, since 2002 and member of Board of Studies of various engineering institutions and Board of Management, Rajasthan Technical University, Kota.

JURY PROFILES

Dr. Sanjay Agarwal
Professor, Department of Computer Engineering and Application,
National Institute of Technical Teachers' Training and Research Bhopal

Dr. Agarwal is a professor in computer applications at the department of computer engineering and applications at NITTTR, Bhopal. He has handled several software development projects like computer- based training software on regimes of lubrications, CBT software on maintenance of compressors including screws compressors, multimedia company profile for ILTIS Company, Germany; air brake system for Indian Railways etc.

He has been a coordinator and faculty member in more than 125 short-term courses. Some of the courses are Linux Server Administration, Networking using Windows Server and Dynamic Web page designing using Php. Dr Agarwal has developed curriculum for Bachelor in Engineering (BE) in Computer Science and engineering course of RGPV, Bhopal and for Diploma in Computer Science and Engineering course of Swami Vivekanand University Chhattisgrah, among others.

Dr. Raghuram Rao Akkinepally
Professor of Pharmaceutical Chemistry &Dean, Faculty of Pharmaceutical Sciences,
Kakatiya University

Dr. Akkinepally is a professor of Pharmaceutical Chemistry and Dean, Faculty of Pharmaceutical Sciences at Kakatiya University, Warangal, Andhra Pradesh. He is a PhD with Medicinal Chemistry as his specialization. A gold medalist in M. Pharm from Andhra University, Dr. Akkinepally has a teaching and research experience of 28 years, which includes five years of international experience in Germany and Kingdom of Saudi Arabia.

He has received several awards including Career Award for Young Teachers from AICTE in 1995, Dr (Mrs) Manjusree Pal Memorial Best Pharmaceutical Scientist Award - 2010, awarded at APTI Convention and Senior Fellowship DAAD. He is a member of various professional and academic bodies and societies including Medicinal Chemistry Division, American Chemical Society and Saudi Pharmaceutical Society. He has 70 publications to his credit, including 50 international and 20 Indian and 5 patents in his name. His areas of interest are anti-asthma agents, anti-cancer agents (aromatase, DHFR inhibitors and ADEPT strategies) and analytical profiles of drug substances.

Mr. Dushyant Aniruddhray Joshi
Manager-Production, Godrej Industries

Mr Joshi is a B.Sc in oil technology from University Department of Chemical Technology (UDCT, now called Institute of Chemical Technology), Matunga. He Joined Godrej Soaps Ltd in 1979. He has been looking after soaps and cosmetic production for 22 years now.

Mr Joshi has been an internal auditor for ISO 9000, 14000 & 21000, 27000 and an internal auditor for good manufacturing practices.

Mr Manoj Kulkarni
Vice-President, Human Resource, Pennar Industries Limited

Mr Kulkarni is Vice President- Human Resource for Pennar Industries Limited, Hyderabad. He leads the human resources, learning and development and administration efforts. In addition to that he is also plant head for operations at Tarapur. He has more than 20 years' experience in the area of human resource management with companies such as Tata Honeywell, Intigma, Emptoris Technologies and Reliance. His expertise covers the entire gamut of human resource strategy, organizational development and HR operations.

Mr Kulkarni is a science graduate and a post-graduate in human resource management from Symbiosis Institute of Business Management. He is an explorer and an avid trekker and an animal lover. His hobbies include playing chess and cooking.

APPENDICES

JURY PROFILES

Kumar Sachidanandam
Senior Director, Cognizant Innovation Group

Kumar is responsible for strategy, change management and evangelization of managed innovation thereby creating a culture of innovation within Cognizant's 160,000 associates enabling them to deliver business value to customers.

With a Masters in Business Administration and MS in Software Engineering, Bachelors' in Instrumentation Engineering and a Diploma in Electronics and Communication Engineering, he is a technologist by heart, but his passion for business creativity drew him to his current role of being an Innovation Catalyst at Cognizant.

Designing and facilitating strategic innovation workshops, mentoring innovation champions, conducting innovation capability programs, organizing large innovation events like fail camps, hackathons, innovation jams, innovation awards, innovation fairs, innovation summits and researching innovation tools and techniques are part of his day-to-day work at Cognizant. Creativity, play as a tool for idea generation, storytelling, entrepreneurship, lean start-up and design thinking are some areas he specializes in.

Mr Bhavin Bhatt
Manager, Human Resource, L&T Power

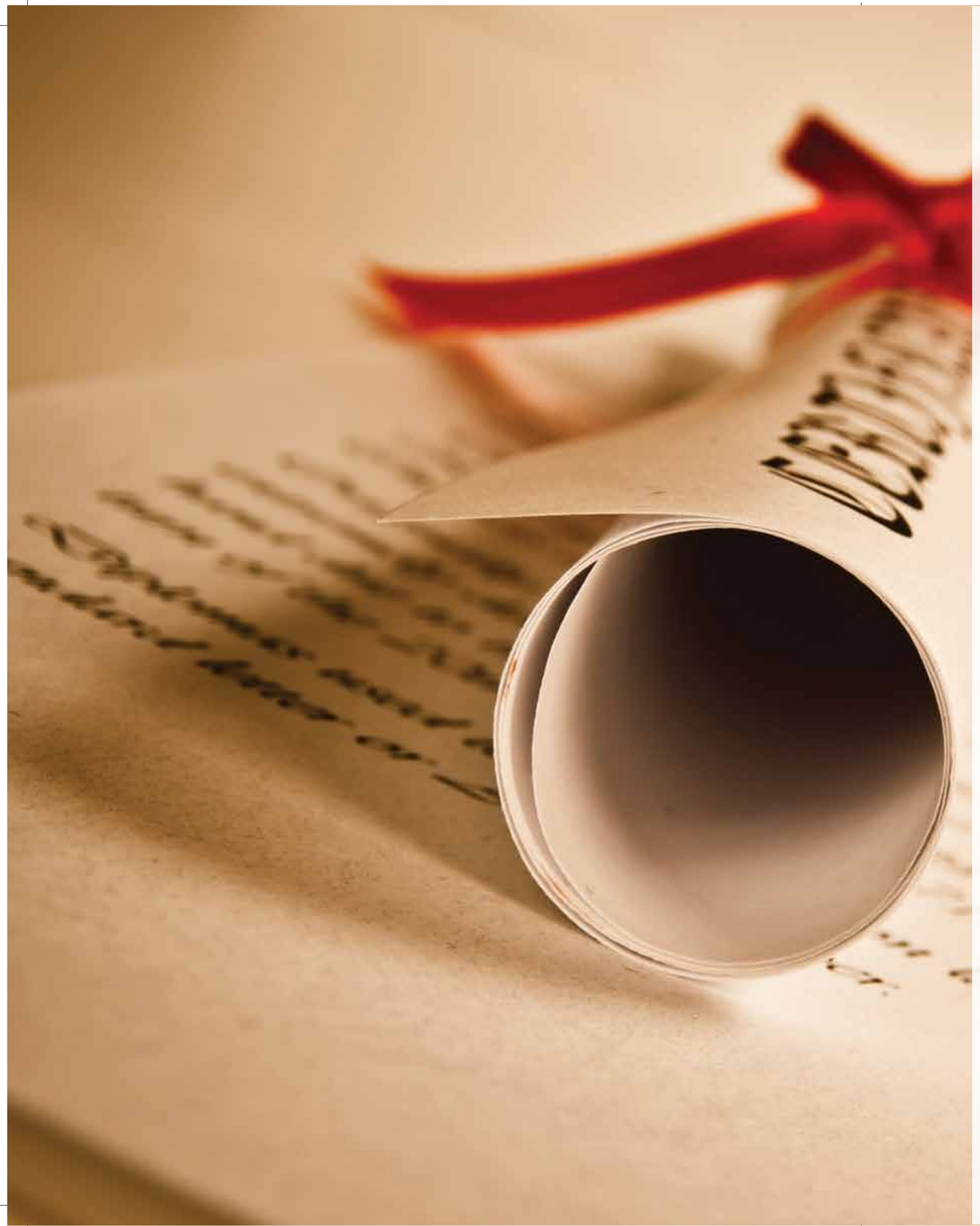
Mr Bhatt has done his Master's in system on chip design and in human resource management. He has a PGDM in clinical and community psychology. Earlier he worked as assistant lecturer at Dharmsinh Desai Institute of Technology, Nadiad for one year and as RF Engineer with Nokia Siemens Networks, Ahmedabad for three years. He has been part of HR - Learning & Development Team of L&T Power for more than three years, taking care of training and leadership development initiatives.

Mr. Vipin Mullick
Managing Director, Inspros Engineers Pvt Ltd

Mr Vipin Mullick, a graduate in electrical engineering, set up Inspros Engineers Pvt Ltd at Mandideep in 1985. Today Inspros is reckoned as a leader in its chosen field of production of solenoids and electromagnetic assemblies, high-voltage bushings for capacitors and traction control gear.

Mr Mullick has been actively involved in many professional, social and academic institutions. He is the past president of Mandideep Industries Association, past-Chairman of Madhya Pradesh chapter of Confederation of Indian Industry (CII), past vice-president of Madhya Pradesh Laghu Udyog Sangh, a state-level body of small industries and is now member of Western Regional Council of CII and Chairman of Western Region Sub-committee on Medium Small and Micro Enterprises.

Actively associated with many organizations in the field of technical education, Mr Mullick was a member of the Board of Governor of CRISP, Bhopal and member of Board of Governors of MANIT. He is also the chairman of management committee for Industrial Training Institute, Bhopal.



APPENDICES

AWARD SPONSORS AND ORGANISERS

APPENDICES

AWARD SPONSORS

Forbes Marshall
Award Sponsor for Mechanical Engineering and Electrical Engineering

Forbes Marshall is a leader in the area of process efficiency and energy conservation for the process industry. It has over 60 years of experience building steam engineering and control instrumentation solutions with focused investments in manufacturing and research and development. The company delivers quality solutions in 18 countries. Forbes Marshall is unique in having extensive expertise in both steam and control instrumentation. This dual expertise has allowed it to engineer industry specific systems that focus on energy efficiency, environment and process efficiency for diverse sectors.

It began by offering steam generation solutions and distribution of products for effective and efficient use of steam for energy. In joint venture with Vynke Energietechniek, a world leader, Forbes Marshall offers solutions for converting biomass into energy. Forbes Solar is a revolutionary new solar technology, in association with Azur Earth GmbH, Germany, for solar cogeneration (combined heat and power) systems.

The company has long standing partnerships with some of the best names in the control instrumentation industry such as Arca, Codel, Krohne and Shinkawa, to develop, design and supply innovative solutions for measurement and monitoring of process parameters. With a combination of specialist knowledge and the latest technology, it provides products and solutions to achieve optimum efficiency. Its products are a unique combination of hardware and software that make them reliable and accurate.

Forbes Marshall teams comprise some of the finest engineers in the land. These highly trained professionals have developed innovative solutions and saved millions of rupees in process costs for its clients. Its business practices and processes have combined into a singular philosophy of being trusted partners who provide innovative solutions. It's a philosophy the company is proud to live up to.

The company's core values of Family Spirit, Integrity, Innovation & Entrepreneurship and Delivering Value not only to its customers, but also to its members and society make Forbes Marshall a place that puts people first: members, customers, suppliers, associates and the community.

Forbes Marshall has been listed several times among the Top "Best Workplaces in India", it has been ranked among the top five best workplaces in India more than once and has been ranked first in the manufacturing sector. This ranking is awarded based on a survey conducted by the Great Place to Work Institute in association with Economic Times. An engaging work environment, open communication, management training programmes and the absence of hierarchy are some of the key aspects of Forbes Marshall that make it a great place to work.

Elico Limited
Award Sponsor for Computer & IT Engineering and Electronics & Communications Engineering

ELICO Limited, established in 1960, is an ISO 9000/14001/27001 certified company which designs, develops and manufactures Electronic Analytical Instruments and also offers high-end solutions in the field of Instrumentation, Mechoptronics, Homeland Security and Application Software Development. Elico is the first analytical instruments company in India and the first electronic company in the state of Andhra Pradesh.

Elico has developed several technologies in the areas of Spectrophotometry, Chromatography, Electrochemistry, Flame Photometry Instrumentation and it also works with global leaders in product development and manufacturing (ODM Services).

AWARD SPONSORS

Tata Chemicals
Award Sponsor for Chemical Engineering

A part of the over US$ 100 billion Tata Group, Tata Chemicals Limited (TCL) is a global company with interests in businesses that focus on LIFE—Living, Industrial and Farm Essentials. The story of the company is about harnessing the fruits of science for goals that go beyond business.

Through its Living Essentials portfolio the company has positively impacted the lives of millions of Indians. Tata Chemicals is the pioneer and market leader in India's branded iodised salt segment. With the introduction of an innovative, low-cost, nano-technology based water purifier; TCL is providing affordable, safe drinking water to the masses. TCL unveiled India's first national brand of pulses in 2010, extending its portfolio from salt to other food essentials.

The company's Industry Essentials product range provides key ingredients to some of the world's largest manufacturers of glass, detergents and other industrial products. Tata Chemicals is currently the world's second largest producer of soda ash with manufacturing facilities in Asia, Europe, Africa and North America. Starting April 1st 2011, these key international subsidiaries have been rebranded under the Tata Chemicals umbrella.

In its efforts to focus on sustainability, about 60% of TCL's soda ash comes from natural resources.

With its Farming Essentials portfolio the company has carved a niche in India as a crop nutrients provider. It is a leading manufacturer of urea and phosphatic fertilizers and, through its subsidiary Rallis, has a strong position in the crop protection and seeds business. TCL is also a pioneer in the customized fertilizer segment and a leading supplier of farm services and speciality products.

The Tata Chemicals Innovation Centre is home to world class R&D capabilities in the emerging areas of nanotechnology and biotechnology. The company's Centre for Agri-Solutions and Technology provides advice on farming solutions and crop nutrition practices.

Pennar Industries
Award Sponsor for Civil Engineering and Management

Pennar Industries Limited is one of the leading engineering organizations in India renowned for providing global innovative engineering solutions. An epitome of quality, precision, and perfection. Pennar is a professionally managed company of more than 1200 strong team members, driven by an unrelenting desire to excel with experience and expertise spanning across three decades.

The company's quest for engineering excellence began in 1988, with a strategic decision to establish the first manufacturing plant at Isnapur, near Hyderabad with an installed capacity of 30,000 mtpa to manufacture cold rolled steel strips. This decision catapulted Pennar from a start-up to a profitable organization in the very first year of operations.

The advent of liberalization gave it the much needed impetus to expand its business horizon. It embarked on a series of strategic acquisitions and expansion plans, most notable among them being:

- Acquisition of Nagarjuna Steel Ltd.
- Acquisition of Press Metal, a unit of Tube Investment (TI) near Mumbai
- Establishing a new manufacturing facility at Chennai

Today, with an annual production capacity of 2,00,000 mtpa, Pennar is a multi-location, multi-product company manufacturing precision engineering products such as cold rolled steel strips, precision tubes, railway wagons / coaches, pre-engineered building systems, sheet metal components, road safety systems, etc.

Driven by the guiding philosophy of maximizing customer satisfaction with products and services par excellence, today, it has successfully established its identity as a Powerhouse of Engineering Excellence.

AWARD SPONSORS

Sun Pharma
Award Sponsor for Pharmacy

Introduction
Sun Pharma is India's leading speciality pharmaceuticals company (2012-13 Revenues $ 2 billion, PAT $ 660 million, Market capitalization, as on 30st September 2013 over $ 19 billion).

Revenue mix
International sales are 72% of revenues, across formulations and API. Domestic formulation, which is the sales of speciality prescription brands in India, is 26% of revenues. US generic sales are 54% of revenues. International formulations, ex US, are 13% of revenues with sales of speciality brands growing at 40+% over the last five years. Speciality API sales, across India and international markets are 7% of revenues.

Marketing strengths – India
Indian market share has moved from less than 1% in 1994, to 5.2% of the Indian prescription market (AWACS -AIOCD Ltd sales data audit; Rx Data Audit, September. 2013). With 19 marketing divisions that employ over 4000 representatives, we offer speciality therapy baskets in niche areas like psychiatry, neurology, cardiology, diabetology, gastroenterology, orthopedics and ophthalmology. Five core therapy areas account for over 75% of the domestic prescription sales, with antiulcer drug Pantocid (pantoprazole), and Susten, Aztor leading the list. Every year we introduce around 20-30 new branded generic products that we develop at our R&D labs, most of these are based on internally sourced API, over half of these are technically complex or use a different delivery system. Over 500 of the brands that we market are ranked among the top 3 for that molecule. With 7 classes of specialists, we've been ranked as the number 1 company (SMSRC Audit March – June 13).

US generics
Now, Sun Pharma has a presence in the US generic market (2012-13 Revenues $ 1.1 billion) through subsidiaries, Caraco Pharmaceutical, URL Pharma. Inc., Dusa Pharma Inc. & Taro Pharmaceutical as of 30th June 2013. We have also entered into a joint venture with Intrexon to develop controllable gene-based therapies for the treatment of ocular diseases that cause partial or total blindness, such as dry age-related macular degeneration (AMD), glaucoma and retinitis pigmentosa.

Marketing strengths- Rest of World
Sun Pharma promotes ethical prescription brands in 45 countries across the erstwhile CIS, China, and South East Asia, some countries in Middle East and Africa, with a recent entry in the South American markets of Brazil, Mexico, Peru and Columbia. A trained representative force promotes these speciality brands and prescriptions are generated. Sun Pharma's Joint Venture with Merck to bring differentiated branded generics to the emerging markets, is a step forward in enhancing its presence in these key markets.

Marketing: Speciality APIs
Speciality APIs that address niche therapy areas are sold to large companies including the originator companies in Europe and Latin America. Every year over 20 APIs are scaled up, both for internal use and the international markets. Starting with just 2 products in 1995, the API list now numbers over 275, with all the processes developed in house. 243 interesting filings for US and Europe have been made from these plants and are approved or await approval.

R&D
Sun Pharma is one of the few Indian companies with a firm commitment to research. So far, over $ 600 million have been invested in research, with 6% of revenues invested in research in 2012-13.

Based on the intellectual property created, 791 patents have been filed and 503 patents have been received. R&D projects are pursued at the research centers, SPARC (Sun Pharma Advanced Research Center), in Baroda and in Mumbai.

SPARC- Baroda is located on a 16 acre campus with 300,000 sq ft research area and 161 labs for world-class pharmaceutical research. Here, an 800 person scientist team works on projects in process development, peptide synthesis, tissue culture and formulation development.

The 50,000 sq ft research center in Mumbai has 80 scientists and works on dosage forms for ANDA applications for the US well as new drug delivery technologies for world markets.

Manufacturing
Sun Pharma manufactures products across 26 plants globally. Eighteen of these facilities are for formulations while eight plants are for APIs. A range of solid oral dosage forms and injectables is manufactured at fifteen plants. Some of the plants have separate suites for the manufacture of high value peptides, steroids, anticancers and hormones, enabling the company to be completely integrated for these products.

Our plant at Halol has one of Asia's largest injectables sites, as well as separate manufacturing areas for steroids, anticancers and peptides. This plant is approved by the USFDA, UKMHRA, Brazilian ANVISA, Columbian INVIMA and South African MCC. In addition to an earlier approval for tablets, the USFDA has also approved the injectables and nasal spray areas. Extensive approvals for the US generic market and the European market have been received from this plant.

ORGANISERS

Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

CII is a non-government, not-for-profit, industry led and industry managed organisation, playing a proactive role in India's development process. Founded over 116 years ago, it is India's premier business association, with a direct membership of over 8,100 organisations from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 90,000 companies from around 400 national and regional sectoral associations. CII catalyses change by working closely with government on policy issues, enhancing efficiency, competitiveness and expanding business opportunities for industry through a range of specialised services and global linkages. It also provides a platform for sectoral consensus building and networking. Major emphasis is laid on projecting a positive image of business, assisting industry to identify and execute corporate citizenship programmes. Partnerships with over 120 NGOs across the country carry forward our initiatives in integrated and inclusive development, which include health, education, livelihood, diversity management, skill development and water, to name a few. CII has taken up the agenda of "Business for Livelihood" for the year 2011-12. This converges the fundamental themes of spreading growth to disadvantaged sections of society, building skills for meeting emerging economic compulsions, and fostering a climate of good governance. In line with this, CII is placing increased focus on Affirmative Action, Skills Development and Governance during the year. With 64 offices and 7 Centres of Excellence in India, and 7 overseas offices in Australia, China, France, Singapore, South Africa, UK, and USA, as well as institutional partnerships with 223 counterpart organisations in 90 countries, CII serves as a reference point for Indian industry and the international business community.

All India Council for Technical Education

The All India Council for Technical Education (AICTE) was set up in November 1945 as a national level Apex Advisory Body to conduct survey on the facilities on technical education and to promote development in the country in a coordinated and integrated manner. To ensure the same, AICTE was vested with statutory authority for planning, formulation and maintenance of norms and standards, quality assurance through accreditation, funding in priority areas, monitoring and evaluation, maintaining parity of certification and awards and ensuring coordinated and integrated development and management of technical education in the country.

The Government of India (Ministry of Human Resource Development--MHRD) also constituted a National Working Group to look into the role of AICTE in the context of proliferation of technical institutions, maintenance of standards and other related matters. The Working Group recommended that AICTE be vested with the necessary statutory authority for making it more effective, which would consequently require restructuring and strengthening with necessary infrastructure and operating mechanisms.

Pursuant to the recommendations of the National Working Group, the AICTE Bill was introduced in both the Houses of Parliament and passed as the AICTE Act No. 52 of 1987. The Act came into force w.e.f. March 28, 1988.

The purview of AICTE (the Council) covers programmes of technical education including training and research in Engineering, Technology, Architecture, Town Planning, Management, Pharmacy, Applied Arts and Crafts, Hotel Management and Catering Technology etc. at different levels.

The organisation

In accordance with the provisions of the AICTE Act (1987), for the first five years after its inception in 1988, the Minister for Human Resource Development was the Chairman of the Council. The first full time Chairman was appointed on July 2, 1993 and the Council was re-constituted in March 1994 with a term of three years. The Executive Committee was re-constituted on July 7, 1994 and All India Boards of Studies and Advisory Boards were constituted in 1994-95. Regional Offices of MHRD, located at Kolkata, Chennai, Kanpur and Mumbai were transferred to AICTE and the staff working at these offices were also deputed to the Council on foreign service terms w.e.f. October 1, 1995.These offices functioned as secretariats of Regional Committees in the four regions (East, South, North and West). Three new Regional Committees in south-west, central and northwest regions with their secretariats located at Bangalore, Bhopal and Chandigarh respectively were also established on July 27, 1994. One more Regional Committee in South-Central region with its Secretariat at Hyderabad was notified on March 8, 2007.

ABOUT ACCA

ACCA (the Association of Chartered Certified Accountants) is the global body for professional accountants. We aim to offer business-relevant, first-choice qualifications to people of application, ability and ambition around the world who seek a rewarding career in accountancy, finance and management.

Founded in 1904, ACCA has consistently held unique core values: opportunity, diversity, innovation, integrity and accountability. We believe that accountants bring value to economies in all stages of development. We aim to develop capacity in the profession and encourage the adoption of global standards. Our values are aligned to the needs of employers in all sectors and we ensure that, through our qualifications, we prepare accountants for business. We seek to open up the profession to people of all backgrounds and remove artificial barriers, innovating our qualifications and their delivery to meet the diverse needs of trainee professionals and their employers.

We support our 162,000 members and 428,000 students in 173 countries, helping them to develop successful careers in accounting and business, with the skills needed by employers. We work through a network of 89 offices and centres and more than 8,500 Approved Employers worldwide, who provide high standards of employee learning and development.

www.accaglobal.com

ABOUT ACCOUNTANTS FOR BUSINESS

ACCA champions the role of finance professionals working in all sectors as true value creators for organisations. Finance professionals shape business strategy through a deep understanding of financial drivers affecting an organisation, and provide business insight able to identify opportunities for long-term success. By focusing on the critical role professional accountants play in economies at all stages of development around the world, and in many diverse organisations, ACCA seeks to highlight and enhance the role the accountancy profession plays in supporting a healthy global economy.

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ACCA CONTACTS

Ewan Willars
Director of Policy
tel: +44 20 7059 5823
ewan.willars@accaglobal.com

Aziz Tayyebi
Head of International Development
Tel (Ind): +91 83 9071 2664
Tel (UK): +44 20 7059 5934
Tel (UAE): +97 15 0985 3913
aziz.tayyebi@accaglobal.com

CS Raghavam
Head of Education
Tel (Ind): +91 82 8724 8944
Tel (UAE): +971 4375 2299
c.raghavan@accaglobal.com

Dr. Mona Shekarriz
Market Research Manager
tel: +44 20 7059 5565
mona.shekarriz@accaglobal.com

CII CONTACT

Shalini S. Sharma
Head-Higher Education
tel: +91 11 4577 2044
shalini.sharma@cii.in

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