

Newspaper Clips

June 29, 2016

Top 100 Engineering Colleges In 2016

<http://www.outlookindia.com/magazine/story/top-100-engineering-colleges-in-2016/297392>

IIT — Delhi, Mumbai and Kharagpur top the charts as always

Rank 2016	Rank 2015	Name of the Institute	P: Pvt G: Govt	City	Selection process (227)	Academic excellence (214)	Personality devt & indl interface (173)	Infrastructure (206)	Placement (180)	Overall score (1,000)
1	1	IIT	G	Delhi	212.0	196.1	163.0	193.7	174.0	938.8
2	2	IIT	G	Mumbai	210.0	188.1	160.0	199.6	161.7	919.3
3	3	IIT	G	Kharagpur	214.0	192.2	157.0	196.5	159.3	919.0
4	4	IIT, Madras	G	Chennai	208.0	193.1	156.0	196.6	159.0	912.8
5	5	IIT	G	Kanpur	208.0	196.4	154.0	191.0	161.5	910.9
6	7	BITS	P	Pilani	184.0	181.6	156.6	184.6	165.7	872.4
7	8	IIT *	G	Guwahati	179.1	185.8	145.4	181.2	147.2	838.7
8	9	NIT, Trichy*	G	Tiruchirappalli	182.1	171.5	148.2	160.3	142.0	804.1
9	10	NIT, Surathkal	G	Mangalore	176.9	169.7	134.7	176.2	146.1	803.5
10	11	NIT *	G	Warangal	185.0	158.4	134.5	158.1	128.2	764.2
11	Np	College Of Engineering, Guindy	P	Chennai	207.8	162.5	132.0	131.9	126.6	760.8
12	14	NSIT*	G	Delhi	151.0	154.4	134.9	163.5	154.4	758.2
13	19	DTU	G	Delhi	145.0	163.6	132.0	140.4	153.0	733.9
14	15	College Of Engineering	G	Pune	164.9	150.3	130.4	148.5	139.4	733.6
15	13	IIT	P	Hyderabad	149.0	153.8	129.8	155.3	143.8	731.6
16	16	PSG College of Technology	P	Coimbatore	143.9	147.9	133.4	164.4	125.3	715.0
17	17	IIT	G	Allahabad	147.5	152.9	117.6	155.1	139.5	712.6
18	21	MIT	P	Manipal	163.0	158.5	126.3	148.9	115.0	711.7
19	32	VIT University	P	Vellore	137.0	143.8	147.0	152.0	131.0	710.8
20	20	BIT Mesra	P	Ranchi	165.0	151.8	116.2	154.8	116.8	704.6
21	Np	ISM	G	Dhanbad	159.0	178.8	135.7	112.5	116.0	702.1
22	Np	University Institute Of Engineering	P	Chandigarh	142.0	142.8	137.8	154.7	121.3	698.5
23	25	Thapar University	P	Patiala	142.0	148.4	130.7	147.5	118.9	687.5
24	27	VNIT	G	Nagpur	145.0	151.2	109.9	168.5	108.7	683.3
25	28	NIE	G	Mysore	142.4	144.9	125.0	147.9	107.6	667.7
26	26	B.I.T Sindri	G	Dhanbad	169.0	136.6	105.3	147.7	107.4	666.0
27	24	NIT*	G	Durgapur	162.0	163.7	106.0	126.3	102.9	660.9
28	30	SGS Inst Of Tech.	G	Indore	145.9	136.5	104.4	157.5	112.6	656.8
29	29	Inst. Of Technology, Nirma Univ.	P	Ahmedabad	143.7	138.9	108.9	138.1	100.5	630.0
30	31	University College Of Engg	G	Hyderabad	112.0	129.6	113.5	152.5	120.7	628.4
31	33	Chaitanya Bharathi Inst Of Tech	P	Hyderabad	123.0	118.0	118.0	155.8	104.5	619.2
32	36	D. J.Sanghvi College Of Engg	P	Mumbai	115.0	125.7	105.6	123.3	127.2	596.8
33	Np	SVKM's NMIMS	P	Mumbai	117.0	128.8	124.3	122.7	103.5	596.3
34	Np	SRM Engg College	P	Chennai	117.0	118.8	121.1	127.4	111.6	595.9
35	34	Guru Nanak Dev Engg College	G	Ludhiana	130.0	113.8	121.2	138.8	91.0	594.9
36	41	Govt. Model Engg College	G	Kochi	124.3	116.7	121.8	125.1	106.7	594.6
37	42	Govt College Of Engg.	G	Amravati	127.6	103.1	113.9	145.2	104.7	594.4
38	38	Thiagarajar College Of Engg	P	Madurai	131.6	119.3	112.1	127.9	102.7	593.6
39	37	MIT College Of Engg	P	Pune	117.1	116.0	104.7	134.7	113.5	586.0
40	40	Bannari Amman Inst. Of Tech	P	Erode	120.0	129.8	120.3	150.6	63.8	584.5
41	49	Bharati Vidyapeeth Univ College Of Engg	P	Pune	106.0	130.8	82.4	145.7	117.4	582.3
42	44	Rungta College Of Engg	P	Bhilai	122.0	129.2	100.4	133.5	91.1	576.1
43	45	BMS Inst. Of Technology	P	Bangalore	128.3	120.2	95.1	142.3	89.4	575.2
44	48	PES University	P	Bangalore	122.0	112.8	108.1	133.4	96.6	572.9
45	50	BMS College Of Engg	P	Bangalore	124.2	124.8	89.1	130.5	103.8	572.4
46	46	KLE Dr M.S Sheshgiri College Of Engg	P	Belgaum	121.7	116.7	86.0	153.8	89.2	567.4
47	57	JNNCE	P	Shimoga	127.1	127.0	81.8	148.7	81.8	566.4
48	Np	Symbiosis Institute Of Tech.	P	Pune	120.3	131.2	90.1	127.3	97.3	566.2
49	Np	School Of Engineering & Tech.	P	Noida	127.0	128.0	106.0	107.9	96.8	565.7
50	47	K L University	P	Guntur	116.0	129.4	105.5	140.8	73.3	564.9

Rank 2016	Rank 2015	Name of the Institute	P: Pvt G: Govt	City	Selection process (227)	Academic excellence (214)	Personality devt & incl interface (173)	Infrastructure (206)	Placement (180)	Overall score (1,000)
51	66	Faculty Of Engg. DIT University	P	Dehradun	117.0	119.7	92.3	135.0	100.9	564.8
52	52	Walchand College Of Engg.	P	Sangli	111.7	127.9	99.7	134.5	90.9	564.6
53	54	Galgotias College Of Engg.	P	Noida	126.2	110.6	97.3	133.2	96.1	563.4
54	53	Sri Sairam Engg College	P	Chennai	114.4	129.1	91.0	138.5	89.6	562.5
55	Np	Sri Jayachamarajendra College of Engg	G	Mysuru	102.0	123.9	99.0	134.9	102.2	561.9
56	Np	Sanjivani Rural Education Society's College Of Engg	P	Ahmednagar	116.0	124.3	107.1	136.1	77.8	561.4
57	69	Cummins College of Engg for Women	P	Pune	122.0	126.4	90.1	124.8	96.4	559.6
58	61	Shri Ramdeobaba Coll. Of Engg.	P	Nagpur	115.4	123.9	101.0	129.8	89.0	559.1
59	58	SDM College Of Engg.	P	Dharwad	129.0	128.7	106.7	110.6	83.8	558.7
60	60	Sir M Visvesvaraya Inst. of Tech.	P	Bangalore	123.5	104.6	103.6	125.8	101.1	558.5
61	67	M V J College Of Engg.	P	Bangalore	122.5	111.8	80.3	156.0	87.7	558.3
62	62	Army Inst. Of Tech.	P	Pune	107.0	111.6	98.3	140.7	100.3	557.8
63	Np	Rajagiri School Of Engg. & Tech.	P	Ernakulam	115.0	113.0	103.3	135.9	89.7	556.8
64	Np	The Northcap Univ.	P	Gurgaon	110.9	132.6	77.6	129.9	105.5	556.6
65	55	Muffakham Jah College Of Engg.	P	Hyderabad	117.9	121.1	96.9	128.3	92.3	556.4
66	64	National Inst. Of Science & Tech.	P	Berhampur	110.9	121.2	92.8	140.0	91.2	556.1
67	68	Indraprastha Inst. Of IT.	G	New Delhi	109.0	114.7	96.9	149.2	85.6	555.5
68	63	SCMS School Of Engg. & Tech.	P	Ernakulam	105.9	116.4	92.2	137.3	103.6	555.4
69	70	Lakshmi Narain College Of Tech.	P	Bhopal	104.0	148.9	91.0	140.2	70.5	554.6
70	81	Sikkim Manipal Inst. Of Tech.	P	Sikkim	112.9	107.4	94.7	138.7	100.9	554.6
71	75	JSS Academy Of Tech. Education	P	Bengaluru	122.0	117.4	95.0	128.4	91.2	553.9
72	76	Amity School Of Engg.	P	Noida	115.6	109.4	95.7	123.4	108.0	552.0
73	73	Maharashtra Inst. of Tech.	P	Aurangabad	120.0	107.3	98.6	131.0	94.9	551.8
74	72	D.Y.Patil College of Engg.	P	Pune	121.0	109.7	107.5	107.3	106.3	551.8
75	71	IMS Engg. College	P	Ghaziabad	110.0	111.6	102.8	125.2	101.3	551.0
76	Np	JIS College Of Engg.	P	West Bengal	126.1	126.4	79.7	100.5	115.8	548.4
77	78	SS College of Engg.	P	Bangalore	110.0	109.1	100.3	133.7	95.2	548.3
78	77	GL Bajaj Inst. Of Tech.	P	Noida	105.0	109.4	96.6	133.2	104.0	548.1
79	74	Jaipur Engg. College And Res. Center	P	Jaipur	105.5	107.7	112.8	119.1	102.7	547.8
80	Np	J.B. Inst. Of Tech.	P	Dehradun	115.6	118.6	70.0	145.6	97.2	547.0
81	79	P.E.S College Of Engg.	G	Mandya	111.8	104.7	105.7	146.1	78.7	546.9
82	Np	SSN College Of Engg.	P	Kalavakkam	99.0	100.9	99.4	132.8	112.8	545.0
83	Np	Kongu Engg. College	P	Erode	104.0	114.7	118.3	124.9	83.1	545.0
84	Np	Sona College Of Tech.	P	Salem	103.0	119.6	119.8	111.5	89.6	543.5
85	Np	R.M.K. Engg. College	P	Kavaripettai	114.2	103.2	97.2	125.0	99.5	539.0
86	Np	S.A. Engg. College	P	Chennai	105.3	111.8	101.4	136.4	83.6	538.4
87	80	Asia Pacific Inst. of IT	P	Panipat	112.7	104.6	81.8	140.7	94.9	534.5
88	85	Univ. Inst. Of Engg & Tech.	P	Chandigarh	110.1	121.9	104.9	136.0	58.9	531.8
89	Np	Veltech High Tech Engg. College	P	Chennai	132.4	116.6	112.6	113.2	56.3	531.1
90	Np	CVR College Of Engg.	P	Hyderabad	110.1	121.6	84.7	132.4	80.4	529.3
91	87	Kuppam Engg. College	P	Kuppam	107.0	102.0	83.2	146.6	90.3	529.1
92	Np	KLS Gogte Inst. Of Tech.	P	Belagavi	85.0	119.2	84.6	130.8	95.1	514.7
93	94	Malla Reddy College of Engg. & Tech.	P	Secunderabad	108.7	101.2	111.7	122.3	70.7	514.7
94	88	BRACK'S Vishwakarma Inst. of IT.	P	Pune	119.0	101.8	86.8	111.6	95.1	514.2
95	90	IES College Of Tech.	P	Bhopal	100.0	116.7	87.2	134.3	75.6	513.8
96	92	Vishwakarma Inst. of Tech.	P	Pune	105.0	100.1	103.4	108.7	95.5	512.6
97	Np	Inst. of Engg. & Tech. J.K.Lakshmi Pativ.	P	Jaipur	80.0	117.1	112.1	146.1	56.8	512.0
98	89	Shri Shankaracharya Tech. Campus	P	Bhilai	97.5	109.8	86.0	126.0	92.7	511.9
99	84	Madhav Inst.of Tech.	G	Gwalior	110.3	100.9	107.0	136.9	56.6	511.6
100	93	Sathyabama Univ.	P	Chennai	99.8	106.3	119.0	126.7	58.1	509.8

1. Colleges that submitted complete objective data were ranked. Institutes such as IIT Guwhati, NIT Tirchirapalli, NIT Warangal, NSIT Delhi and NIT Durgapur which were interested to participate but could not submit their data are based on 2015 scores;
2. Govt-aided private institutions have been marked as private;
3. Only institutions offering BE/BTech courses (approved/affiliated) and a minimum of three passed-out batches by 2016 have been ranked;
4. It may be noted that the arithmetic total of the figures may not match with the total figure due to rounding-off.
5. NR: Not Ranked.

TOP 10 RoI IN GOVT ENGINEERING COLLEGES

Rank	Name of the Institute	City	Average salary (In Rs lakh)	Fee in ₹ lakh	RoI
1	B.I.T.Sindri	Dhanbad	3.9	0.4	10.1
2	IIT	Kharagpur	12.0	2.0	6.0
3	Netaji Subhas Institute Of Technology	Delhi	10.0	1.7	5.8
4	IIT Bombay	Mumbai	11.0	2.0	5.5
5	IIT	Kanpur	10.0	2.0	5.0
6	NIT Trichy	Tiruchirappalli	6.6	1.4	4.7
7	VNIT	Nagpur	5.7	1.4	4.1
8	IIT	Guwahati	11.0	3.6	3.0
9	IIT Madras	Chennai	10.2	3.6	2.8
10	IIT	Delhi	10.0	3.6	2.8

RoI is calculated for those govt institutes which are in the top 100

TOP 10 RoI IN PVT ENGINEERING COLLEGES

Rank	Name of the Institute	City	Average salary (In Rs lakh)	Fee in ₹ lakh	RoI
1	PSG College of Technology	Coimbatore	4.6	0.9	5.4
2	BMS College of Engg	Bangalore	4.5	0.9	4.9
3	Sir M Visvesvaraya Inst of Technology	Bangalore	5.5	1.3	4.2
4	BITS	Pilani	8.7	2.2	4.0
5	College of Engineering Guindy	Chennai	3.6	0.9	3.8
6	BVU College of Engineering	Pune	6.7	1.8	3.7
7	MIT College of Engineering	Pune	3.2	1.0	3.3
8	PES College of Engineering	Mandya	2.5	0.8	3.3
9	BMS Inst of Technology & Management	Bangalore	4.3	1.3	3.3
10	Army Institute of Technology	Pune	9.0	3.6	2.5

RoI has been calculated for those pvt institutes which are in the top 100

TOP 10 STUDENT/FACULTY RATIO

Rank	Name of the Institute	City	Student/Faculty ratio
1	Kuppam Engineering College	Kuppam	0.82
2	IIT	Kanpur	2.62
3	IIT Bombay	Mumbai	4.69
4	IIT Madras	Chennai	6.08
5	IIT	Delhi	7.21
6	SVKM's NMIMS	Mumbai	8.16
7	BIT Mesra	Ranchi	10.45
8	MIT College of Engineering	Pune	11.05
9	IIIT	Hyderabad	11.38
10	College Of Engineering	Pune	12.09

TOP 10 IN ACADEMIC EXCELLENCE

Rank	Name of the Institute	City	Score (214)	Total score (1,000)
1	IIT	Kanpur	196.4	910.9
2	IIT	Delhi	196.1	938.8
3	IIT, Madras	Chennai	193.1	912.8
4	IIT	Kharagpur	192.2	919.0
5	IIT, Bombay	Mumbai	188.1	919.3
6	IIT*	Guwahati	185.8	838.7
7	BITS	Pilani	181.6	872.4
8	ISM	Dhanbad	178.8	884.0
9	NIT, Trichy*	Tiruchirappalli	171.5	702.1
10	NIT, Surathkal	Mangalore	169.7	804.1

The ratio has been calculated based on the data provided by the top 100 institutes. The total number of students in BTech/BE courses has been arrived at by multiplying the total intake capacity by four. The above table is based on data provided by institutes to the objective questionnaire.

TOP 10 IN SELECTION PROCESS

Rank	Name of the Institute	City	Score (227)	Total score (1,000)
1	IIT	Kharagpur	214.0	919.0
2	IIT	Delhi	212.0	938.8
3	IIT, Bombay	Mumbai	210.0	919.3
4	IIT, Madras	Chennai	208.0	912.8
5	IIT	Kanpur	208.0	910.9
6	College Of Engineering, Guindy	Chennai	207.8	732.0
7	NIT*	Warangal	185.0	764.2
8	BITS	Pilani	184.0	872.4
9	NIT, Trichy*	Tiruchirappalli	182.1	804.1
10	IIT*	Guwahati	179.1	838.7

TOP 10 IN PLACEMENT

Rank	Name of the Institute	City	Score (180)	Total score (1,000)
1	IIT	Delhi	174.0	938.8
2	BITS	Pilani	165.7	872.4
3	IIT, Bombay	Mumbai	161.7	919.3
4	IIT	Kanpur	161.5	910.9
5	IIT	Kharagpur	159.3	919.0
6	IIT, Madras	Chennai	159.0	912.8
7	NSIT*	Delhi	154.4	758.2
8	DTU	Delhi	153.0	717.7
9	IIT*	Guwahati	147.2	838.7
10	NIT, Surathkal	Mangalore	146.1	803.5

TOP 10 INDUSTRY INTERFACE

Rank	Name of the Institute	City	Score (173)	Total score (1,000)
1	IIT	Delhi	163.0	938.8
2	IIT, Bombay	Mumbai	160.0	919.3
3	IIT	Kharagpur	157.0	919.0
4	BITS	Pilani	156.6	872.4
5	IIT, Madras	Chennai	156.0	912.8
6	IIT	Kanpur	154.0	910.9
7	NIT, Trichy*	Tiruchirappalli	148.2	804.1
8	VIT University	Vellore	147.0	710.8
9	IIT*	Guwahati	145.4	838.7
10	University Institute Of Engineering	Chandigarh	137.8	698.5

TOP 10 IN INFRASTRUCTURE

Rank	Name of the Institute	City	Score (206)	Total score (1,000)
1	IIT, Bombay	Mumbai	199.6	919.3
2	IIT, Madras	Chennai	196.6	912.8
3	IIT	Kharagpur	196.5	919.0
4	IIT	Delhi	193.7	938.8
5	IIT	Kanpur	191.0	910.9
6	BITS	Pilani	184.6	872.4
7	IIT*	Guwahati	181.2	838.7
8	NIT, Surathkal	Mangalore	176.2	803.5
9	VNIT	Nagpur	168.5	683.3
10	PSG College of Technology	Coimbatore	164.4	715.0

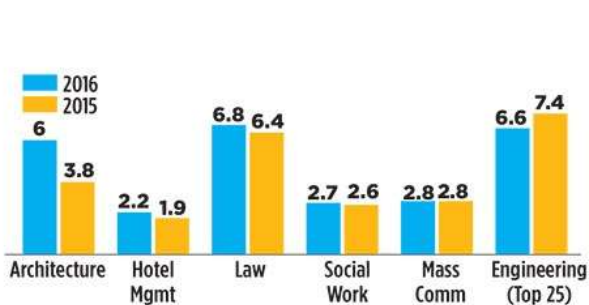
TOP 10 GOVT COLLEGES

Rank	Name of the Institute	City	Overall score
1	IIT	Delhi	938.8
2	IIT, Bombay	Mumbai	919.3
3	IIT	Kharagpur	919.0
4	IIT, Madras	Chennai	912.8
5	IIT	Kanpur	910.9
6	IIT*	Guwahati	838.7
7	NIT, Trichy*	Tiruchirappalli	804.1
8	NIT, Surathkal	Mangalore	803.5
9	NIT*	Warangal	764.2
10	NSIT*	Delhi	758.2

TOP 10 PVT COLLEGES

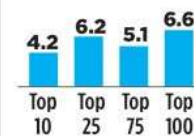
Rank	Name of the Institute	City	Overall score
1	BITS	Pilani	872.4
2	College Of Engineering, Guindy	Chennai	760.8
3	IIIT	Hyderabad	731.6
4	PSG College of Technology	Coimbatore	715.0
5	MIT	Manipal	711.7
6	VIT University	Vellore	710.8
7	BIT Mesra	Ranchi	704.6
8	University Institute Of Engineering	Chandigarh	698.5
9	Thapar University	Patiala	687.5
10	Institute Of Technology, Nirma Universtiy	Ahmedabad	630.0

Average salary (in Rs lakh per annum)

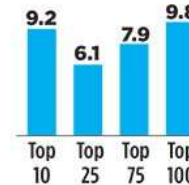


IMPORTANT FINDINGS: ENGINEERING

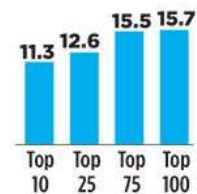
Average total tuition fee for entire duration of BE/BTech programme (excluding hostel)



The average ratio of visiting to permanent faculty



Average student to faculty ratio



Figures in Rs lakh

Dainik Bhaskar ND 29/06/2016 P-11

आईआईटी- एनआईटी के लिए कल होगी काउंसिलिंग

रायपुर | जॉइंट सीट अलॉटमेंट अथॉरिटी (जोसा) की ओर से आईआईटी और एनआईटी में एडमिशन के लिए काउंसिलिंग की डेट आगे बढ़ा दी है। अभी तक 28 जून तक काउंसिलिंग शेड्यूल तय था, अब स्टूडेंट्स ऑनलाइन चॉइस फीलिंग 29 जून तक कर सकते हैं। इसके बाद पहले राउंड का सीट अलॉटमेंट 30 जून को जारी किया जाएगा। इस बार यह काउंसिलिंग चार राउंड्स में होगी।

Now, Centre to offer free online coaching for IIT-JEE

<http://timesofindia.indiatimes.com/city/coimbatore/Now-Centre-to-offer-free-online-coaching-for-IIT-JEE/articleshow/52965299.cms>



Coimbatore: In a boost to IIT aspirants, the central government plans to launch free online course material for the preparation of IIT-JEE on August 15. The course material is intended to provide opportunities to students from disadvantaged sections, especially those in rural areas.

The learning material will be in the form of text and videos on Youtube. Besides the preparation material, there will also be practice tests for students.

Although cities like Chennai and Coimbatore have institutes that offer IIT-JEE coaching, most districts in the state do not have the benefit of top coaching institutes.

"This is a great initiative by the government. The quality of the resources, though, needs to be tested as preparing for such tough exams depends to a great extent on the course material and practice exams," said M V Reddy, president of coaching institute TIME Pvt Ltd.

Experts from coaching institutes, however, noted that preparation through online material may deprive students of a teacher's guidance. "In a general coaching ambience, a student would study along with his peers and have a one to one interaction with the faculty which would be missing in an online mode. The student aims to score more by clarifying his doubts with the faculty, sharing knowledge by studying in a group and taking practice tests," Reddy said. "Classroom

coaching also provides counseling by the faculty, hard copy reports for the tests taken and problem solving sessions which are required during the preparation stage," he added.

Speaking about the plan, a government school teacher from Coimbatore feels that this could help students of government schools. "The Tamil Nadu government has provided laptops to school students. With internet facility easily available at a cheap cost, such a facility by the Centre will help students in the rural areas," said the head of a government school on the outskirts of Coimbatore. "This could perhaps be the beginning for the state to show its potential in the competitive exam," the principal added.

While the Centre may be slightly late in coming out with this plan to provide learning material online, some private players have already entered the market in the last few years.

However, the edge that the Centre has is that members of the Central Board for Secondary Education (CBSE), experts from IITs, teachers from Kendriya Vidyalayas and professors from coaching institutes will be part of the expert committee that prepares the course material.

Times Of India ND 29/06/2016 P-11

Autonomy concern holds up IIM bill

PMO Says IIT Model Not For IIMs

Ashwya Mukad
@timesgroup.com

New Delhi: The IIM bill is stuck again. A month after the HRD ministry sent the bill for Cabinet clearance, PMO has said that in the present form, the autonomy of IIMs will be compromised.

"The bill was finalised after several long discussions with PMO and law ministry. We are back to discussing autonomy issues. PMO thinks that Institute of Technology Act that governs all the IITs cannot be used as a blueprint for IIMs," a PMO source said. "There is a basic difference between IITs and IIMs. In respect many experts feel lack of research in IITs could be due to too much interference by government, IITs have to seek permission for



HRD had sent the IIM bill to the Cabinet for clearance a month ago

everything. IIMs need a different model."

Four issues related to autonomy are being revisited. "It is not that differences exist on all of them. Some were resolved earlier," an official said. The four issues are: One, President to be the visitor of IIMs with power to review their functioning. Two, HRD minister to be made the ex-officio head of committee of IIMs. Three, composition of IIM boards. Four, IIMs should not come to government for change in regulations.

Of these four, HRD had earlier convinced PMO on two issues. HRD ministry

wanted President to be the visitor of IIMs with power to review their functioning, just as it is in the case of IITs. However, PMO felt that Board of Governors should have that power. But the HRD ministry argued that similar provision in case of IITs has worked well with not a single case of transgression of autonomy of IITs. Now, PMO wants this to be reviewed.

PMO is also not in favour of making HRD minister the ex-officio head of committee of IIMs. Though PMO had agreed earlier, now there is a thinking that the committee be headed by some expert. HRD's

Smriti allows foreign stints for students

Union HRD minister Smriti Irani on Tuesday opened up the doors for universities to send their students abroad for two semesters at the undergraduate level and for one semester at the postgraduate level. This is being seen as a step towards plugging brain drain. "This will encourage deserving students to get foreign exposure without leaving the country," Irani said at the fourth convocation of the Indian Institute of Science Education and Research (IISER) Kolkata. This is a long standing demand of Indian universities. The minister made the announcement after IISER gold medalist Madhura Duttaputra said she would pursue her PhD at Chicago University. Irani said this is just the kind of brain drain she wants to prevent. "There should be ample scope to develop research and go ahead with a scientific career in the country itself," she said. Students will get the degree from the home university but the certificate will mention the foreign stint — the name of the institute and the credits obtained there.



Somdatta Basu & Ashish Pandey | 1/16

argument that minister also heads IIT Council without interfering in their work is being viewed differently.

There is little chance of any conflict on the composition of IIM boards. Already out of 14 members, five would be from among alumni. HRD's argument that five members can easily influence decisions was also countered by PMO. It

said non-government voice should have a larger say.

However, the issue of IIMs seeking government nod for changing regulations has been resolved. According to the version of the bill sent for Cabinet clearance, IIMs do not have to approach the government to change regulations. Board of Governors will have the power to do so.

आईआईटी कानपुर के टॉपरों ने ठुकराए लाखों के जॉब ऑफर

अब विदेश से करेंगे पीएचडी, फिर बनेंगे शिक्षक, प्रेसीडेंट और डायरेक्टर गोल्ड मेडल पाने वाले मेधावियों ने भी जॉब ऑफर छोड़े

अमर उजाला व्यूरो

कानपुर। आईआईटी कानपुर से बीटेक और बैचलर ऑफ साइंस (बीएस) की डिग्री प्राप्त करने वाले ज्यादातर टॉपरों ने लाखों रुपये का सालाना वेतन पैकेज ठुकरा दिया है। सबका इरादा विदेश से पीएचडी या फिर एमएस करना है। मेधावियों का कहना है कि पैसा मापने नहीं रहता है। बेहतरीन रिसर्च करके देश, समाज को तकनीकी रूप से मजबूत बनाना है।

10 सीपीआई हासिल करके आईआईटी कानपुर टॉप करने वाले आयुष शेखरी ने सालाना 40 लाख रुपये के पैकेज वाली जॉब छोड़ दी है। उन्हें दुनिया की प्रसिद्ध साफ्टवेयर कंपनी वाल्टर्स स्वॉट ने जॉब ऑफर किया था। आईआईटी का सर्वश्रेष्ठ प्रेसीडेंट गोल्ड मेडल हासिल करने वाले आयुष अब गुणल रिसर्च अमेरिका से इंटरशिप कर रहे हैं। मूलरूप से

200 स्टूडेंटों ने छोड़ा था प्लेसमेंट

आईआईटी कानपुर में (सत्र 2015-16) पढ़ाई पूरी करने वाले बीटेक, बीएस, एमटेक, एमबीए, एमडिस, एमएससी (2 वर्षीय), एमएससी (5 वर्षीय) और वीएलएफएम के 200 स्टूडेंटों ने पैपस प्लेसमेंट में हिस्सा नहीं लिया है। वे पीएचडी करके रिसर्च के क्षेत्र में जाना चाहते हैं।

आयुष को मिला प्रेसीडेंट गोल्ड मेडल: आईआईटी कानपुर के 49वें वीकेंड सनारोह में मंगलवार को नीति आयोग के उपाध्यक्ष डॉ. अरविंद फर्नरिया ने कंप्यूटर साइंस एंड इंजीनियरिंग के स्टूडेंट आयुष शेखरी को प्रेसीडेंट गोल्ड मेडल देकर सम्मानित किया। इलेक्ट्रिकल इंजीनियरिंग के उन्नत जैन और बीएस केमिस्ट्री की शालिनी गुप्ता को डायरेक्टर गोल्ड मेडल देकर सम्मानित किया गया।

फरीदाबाद के रहने वाले आयुष का सपना आईआईटी में प्रोफेसर बनना है। 9.5 सीपीआई हासिल करके डायरेक्टर गोल्ड मेडल हासिल करने वाले इलेक्ट्रिकल इंजीनियरिंग के उन्नत जैन ने भी जॉब ऑफर स्वीकार नहीं किया है। वह विदेशी विश्वविद्यालय से पीएचडी करेंगे। उन्नत मूल रूप से मेरठ के रहने वाले हैं। अब कोलकाता में जाकर बस गए हैं। डायरेक्टर गोल्ड मेडल हासिल करने वाली

शालिनी गुप्ता ने भी बढ़िया वेतन पैकेज का जॉब ऑफर स्वीकार नहीं किया है। शालिनी बायो केमिस्ट्री से पीएचडी करना चाहती हैं। वह यूपी के शहजहांपूर की रहने वाली हैं। मेटल एंड मेटलर्जिकल इंजीनियरिंग की टॉपर रुबिया हमन भी विदेश से पीएचडी करेंगी। जम्मू कश्मीर के अनंतनाग जिले की रहने वाली रुबिया ने जॉब ऑफर स्वीकार नहीं की है।



अब रिसर्च का महत्व बढ़ा है।

बीटेक और बीएस करने वाले स्टूडेंट मास्टर या फिर पीएचडी की डिग्री लेना चाहते हैं। रिसर्च को बेहतर सुविधा-संसाधन मिले, इसलिए विदेशी विश्वविद्यालयों का सहारा लेते हैं, फिर भरत आकर अच्छी और गुणवत्त परक शिक्षा का हिस्सा बनते हैं। वर्ष 2009 के आईआईटी टॉपर वैद्युष श्रीवास्तव ने भी जॉब ऑफर नहीं ली थी। वैद्युष ने युनिवर्सिटी ऑफ कैलफोर्निया से पीएचडी की। अब आईआईटी कानपुर के शिक्षक बनकर पढ़ाना चाहते हैं। - प्रो. दीपू फिलिप, प्लेसमेंट अधिकारी

कमजोर पड़ गई केदारनाथ मंदिर की नींव

मंदिर के अगले हिस्से की दीवार में आया सूक्ष्म झुकाव, सभा मंडप की छत भी हुई कमजोर

सुमन सेमवाल, देहरादून

वर्ष 2013 का जलप्रलय झेलने के बाद भी ज्यों का त्यों खड़े रहे केदारनाथ मंदिर की मजबूती को लेकर पहली बार आशंका खड़ी हुई है। आइआईटी चेन्नई की रिपोर्ट में बताया गया है कि मंदिर की नींव अब कमजोर हो गई है। इससे मंदिर के अगले हिस्से की दीवार में सूक्ष्म झुकाव आ गया है। रिपोर्ट में सभा मंडप की छत को भी कमजोर बताया गया है। मंदिर का संरक्षण कर रहे भारतीय पुरातत्व सर्वेक्षण (एसआइ) ने नींव को सुरक्षित बनाने के लिए परिसर के फर्श को वाटरप्रूफ बनाने का काम शुरू कर दिया है।

एसआइ के देहरादून स्थित क्षेत्रीय कार्यालय की अधीक्षण पुरातत्वविद लिली धरमना के मुताबिक मंदिर की नींव को पानी से बचाने का मुद्दाव आइआईटी चेन्नई ने दिया है।

गुड़, दाल व सुखी से होगा बचाव : आइआईटी चेन्नई के सुझाव अमल शुरू कर दिया गया है। मंदिर परिसर के फर्श के पत्थरों को रेत, सुखी (ईंट का कूरा) के साथ ही उड़द की दाल, गुड़ व बेल गिरी के मसाले से जोड़ा जा रहा



है। फर्श को चांगे तरफ से इस तरह बनाया जा रहा कि पानी टिक न पाए। फर्श के 90 वर्गमीटर तक हिस्से को वाटरप्रूफ बना दिया गया है।

लेकिन अभी 500 वर्गमीटर से अधिक हिस्से पर काम शेष है। इस कार्य को अगले सीजन तक पूरा करने का लक्ष्य रखा गया है।

- आइआईटी चेन्नई की रिपोर्ट में दी गई है जानकारी
- मंदिर परिसर के फर्श को वाटरप्रूफ बनाने में जुटा एसआइ

आइआईटी चेन्नई की रिपोर्ट के बाद केदारनाथ मंदिर परिसर के फर्श को वाटरप्रूफ (जलरोधी) बनाने का काम किया जा रहा है। यह काम भारतीय पुरातत्व सर्वेक्षण विभाग की देखरेख में हो रहा है।

बढ़ रहा पत्थरों में फासला लिली धरमना ने बताया कि मंदिर के दक्षिणी हिस्से के प्रथम तल के पत्थरों में आपस की दूरी बढ़ रही है। इस दिशा में भी उपाचार कार्य चल रहा है, वहीं सभा मंडप की छत के पत्थर भी उखड़ रहे हैं। फिलहाल इन्हे लकड़ी से सपोर्ट दिया गया है। बाद में त्वाही प्रकृति का उपाचार कार्य किया जाएगा। रिपोर्ट में एक अच्छी बात यह भी सामने आई कि केदारनाथ मंदिर का गर्भ गृह सबसे मजबूत स्थिति में है।

बिजली गिरने पर रहेगा सुरक्षित आइआईटी चेन्नई की रिपोर्ट के बाद एसआइ ने मंदिर की सुरक्षा को हर लिहाज से जाक बंधन बनाया शुरू कर दिया है। इस दिशा में अब मंदिर को आकाशीय बिजली से सुरक्षित बनाने के लिए लाइटनिंग कंडक्टर (तड़ित चालक) लगाने का निर्णय लिया गया है। एसआइ के संरक्षण सहायक एमएस सवत ने बताया कि इसके लिए मंदिर के ऊपर तांबे का तड़ित चालक लगाया जाएगा।

An innovation to monitor fatigue level

YOUNG SPARKS IIT Kharagpur students design a device to check how alert pilots are before take off

Satarupa Sen Bhattacharya

Education@indianexpress.com

Fatigue is an issue of concern for aircraft pilots. A high level of fatigue may result in accidents, leading to loss of precious lives and resources. Hence, detection of fatigue levels before a flight can prevent accidents.

Fatigue can be assessed using different measures such as electroencephalogram (EEG) signals, ocular features, blood samples, speech and others. EEG in particular has been reported to be highly authentic for estimating the state of drowsiness. However, measurement of EEG signals need time and may cause inconvenience to pilots. The task of assessing the state of go/no-go for a pilot should be completed within a short duration of time, preferably within a couple of minutes. It is because of this reason that an appropriate measure for this is eye saccades.

Eye saccades refer to fast movements of both eyes in the same direction. It has been widely established that the peak saccadic velocity is a valid indicator of the level of alertness of a person. Higher the peak saccadic velocity, more alert is the person.

A research team from the department of electrical engineering at IIT Kharagpur with professor Aurobinda Routray (team leader), Dr Rajlakshmi Guha (psychologist) along with PhD scholars Anirban Dasgupta, Aritra Chaudhuri, Suvodip Chakroborty, and Punyashlok Dash, in conjunction with the Defence Institute of Physiology and Allied Sciences, DRDO, New Delhi, has developed a fatigue monitoring system (FMS) for pre-flight assessment of Indian

HOW DOES THE FATIGUE MONITORING SYSTEM WORK?

- The pilot is asked to wear the spectacles when seated. The application starts on a PC/Android tablet and the user gets down to playing the game. EOG signals are carried out on the PC/Android tablet
- Once the game is over, the third sub-app is executed for making the decision on the Go or No-go condition of the pilot.
- A decision is made on the game scores (reaction time and number of correct responses) as well as the value of peak saccadic velocity



- The prototype of the device designed by a team of IIT Kharagpur researchers to check the fatigue level in pilots.

From the recorded EOG data, an algorithm has been developed for finding peak saccadic velocity.

In the FMS design, the EOG acquisition unit is specially designed by embedding the Ag-AgCl sensors inside the frame of a spectacle, for ease of acquisition of the signal. The frame of the spectacle has three electrodes – one located on the forehead and two on distal ends on the eyes.

The team has also utilised the concept of a psychomotor vigilance test (PVT) to design a game both for a PC as well as an Android device. The game has two independent metrics which are used to obtain the alertness level of the pilot: the number of correct responses and the mean response time for the correct responses.

The main application has three sub-applications for the concerned task. The first two

sub-apps are the attention game and the EOG recording, and execute in parallel. The third and final sub-app performs the classification using a decision level fusion.

This system has been tested with EEG and Epworth Sleepiness Scale (ESS) which are standard measures of sleepiness and alertness. The findings demonstrate that the FMS was effective in more than 90% cases for the prediction of the Go/No-go status for pre-flight assessment of IAF pilots. The FMS has been evaluated in studies carried out at IAMTC, Hindon and Institute of Aerospace Medicine, Bengaluru on Indian Air Force pilots and the aircrew. The team is working on converting the wired system into a wireless module. The cost of prototype development and testing was ₹30 lakh. When commercialised, the product will cost ₹10,000 or even less. Patent has been filed at IIT Kharagpur two weeks back.

The author is project associate, institutional development programme, IIT Kharagpur

Air Force pilots.

Prof Routray read about a bus accident in 2005 in which the driver slept off due to fatigue. That prompted him to find a solution. A similar model to monitor doctors' fatigue in an operation theatre is also being developed. The research and development is being carried out at the department of electrical engineering at IIT Kharagpur.

The equipment is based upon a physiological measure and a psychological measure. The physiological measure is electrooculogram (EOG), while the psychological measure is the performance of the pilot in a psychomotor vigilance test. EOG is a record of the standing electrical potential between the cornea and the retina, and is an indicator of eye movements.

CU School of Logistics
AMITY UNIVERSITY

Launched Career Oriented

MBA
Supply Chain Mgmt.

MBA
Logistics

IIT-K team proposes eco-friendly tiles

<http://timesofindia.indiatimes.com/city/lucknow/IIT-K-team-proposes-eco-friendly-tiles/articleshow/52964027.cms>

Lucknow: A group of IIT Kanpur graduates has come up with eco-friendly tiles made from a Japanese technology which could be used on city roads under the Smart City project. These tiles are not only stronger than regular bricks or interlocking tiles that are used as of now but they also save water.

No water is required to fix them on the ground.

The group of students has already proposed the idea to Lucknow Municipal Corporation. LMC has asked them to submit the documents related to the technology used for building the tiles.

"Once they present all details related to it, we will float the idea in the house meeting, check its feasibility and see whether it can be used or not," said additional municipal commissioner PK Srivastava.

iScholar Launches i30, an Interactive Online IIT-JEE Exam

<http://indiatoday.intoday.in/story/ischolar-launches-i30-an-interactive-online-iit-jee-exam/1/702821.html>

Preparation Programme in Association With Anand Kumar of Super30.

iScholar Launches i30, an Interactive Online IIT-JEE Exam Preparation Programme in Association With Anand Kumar of Super30

iScholar Education Services, an innovative provider of on-demand education and learning services, announced the launch of its much awaited i30, an online IIT JEE exam preparation course specially designed for the masses in association with renowned Anand Kumar of Super30.

iScholar i30, a one-year entrance exam preparation course, is targeted at candidates attempting IIT-JEE in 2017 and beyond. The courseware is priced affordably making IIT JEE preparation now easily accessible for all aspiring candidates especially those in remote locations across India.

"We are particularly excited to associate with iScholar to bring an online IIT JEE courseware for the masses," said Anand Kumar, Super30. "We are working closely with iScholar to translate the powerful Super30 IIT-JEE courseware for online audiences and bring a near real life experience of a Super30 classroom and interactions. The i30 courseware is designed to pave the way for many more bright students across India to get into IITs," he added.