# Placement and Internship Report

Academic Year 2020-2021



# **Placement Office**

Indian Institute of Technology, Bombay June 2021

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# **Preface**

IIT Bombay has always had the privilege of admitting the best pool of students into the engineering, science and management programs, who have succeeded in living up to the expectations of the communities worldwide. The Institute celebrated its 60th year of establishment during March 2018 to March 2019, and the Ministry of Human Resource Development granted the status of Institution of Eminence (IoE) to IITB. The presence of world-class research facilities, vigorous institute-industry collaborations, international exchange programs, interdisciplinary research collaborations and industrial training opportunities help the students of IIT Bombay to excel and be ahead in the competitive professional environment. The Placement Drive at IIT Bombay was a year-long event, which started in the month of July 2020 and ended on June 30, 2021. The placements were successfully completed in two phases, clearly demonstrating the demand of our graduates among the top recruiters in various segments of the economy. Interview procedure of phase 1, the main event of on-campus placements, was conducted from December 1 to 16 of 2020, which witnessed a participation of companies including Pre-Placement Offers (PPO). A total of 1970 students registered for placements and 1184 students registered for internship programs. The registered students belonged to engineering, science, humanities and design departments of IIT Bombay in bachelor's, master's and Ph.D. programs. The phase 2 was conducted from January 15 to June 30, 2021.

The Placement Office is the nodal point for recruitment of students from institute. The Placement Season at IIT Bombay was a virtual event throughout the year. There were preparatory activities conducted by the placement cell, in collaboration with other firms. Company officials started approaching the office during July and August months to commence discussions of their job offerings and later filled up the Job Announcement Forms (JAF). Completed JAFs were released to the students in late September. Pre-Placement Talks (PPT) and A few companies conducted extra screening levels prior to the interviews. For the students of the IDC department, the interviews were conducted from December 12 to 15, during phase 1.

December 1, 2020, the first day of campus placements, witnessed some of the giant corporates offering coveted jobs across sectors and recruiting in large numbers, which was pivotal for the success of the placement season 2020-21. The highest number of offers were rolled out by the Engineering and Technology sector, ascertaining the technical proficiency of IIT Bombay students.

#### Placement Season 2020 - 21

Table 1: Highlights in Brief

Key Metric	Details
Total Number of Offers in both phases	1261
Total Number of Accepted Offers	1150
Pre – Placement Offers	149
International Job Offers	58
Mean Salary Package	INR 17.91 LPA
Top Recruiting Sector	Engineering and Technology

#### **Student preparation**

The key focus of the placement office is to prepare students for their placement and internships. Keeping the students well prepared for what they are likely to face in the corporate world is the responsibility of every academic institute, and the team here at IIT Bombay takes every necessary step to train and guide the students. Students are exposed to challenging and research-based academics, and a host of sports along with cultural and organizational activities on this vibrant campus. The first event conducted in this direction was "Boot Camps", in collaboration with Career Cell, for profiles of coding, consultancy, finance, analytics etc. In addition, preparatory programs were arranged to enhance the communication skills, group dynamics and interview skills. Overall, these programs provided an insight into the job domains and prepared the job aspirants to face the challenges of the future. The students were assigned mentors for guidance and a series of aptitude tests were conducted to improve the problem-solving skills. The preparatory activities sourced information from various alumni, where the alumni background was mapped according to student preference. Various department level activities were conducted to cater to individual domain requirements. All assessments related activities were conducted successfully.

#### Recruiter's profile

IIT Bombay has achieved tremendous progress with respect to the global standards. While the placement season has seen recruiters from the entire spectrum of the industry, the initial part of the season was dominated by a variety of firms from sectors like Engineering, Information Technology, Software programming, Research, Consulting, Finance, Banking and Services. There were opportunities provided by the firms with vast learning, travelling experience and varied work culture. Most of these firms are world leaders in their respective domains. The world's best consulting firms, banks, software companies take part in placements, and over the years we endeavor to attract world's best engineering companies hire students. Some "non-core" positions have increased which attracts interest of some students due to factors such as the good remuneration, career growth prospects or some kind of aversion to their "core" discipline.

#### **International Recruitments**

The Placement Office had taken additional efforts to expand the global outreach and invited more foreign organizations, but due to COVID-19 restrictions and ban on international travel many international companies couldn't participate during placement season. Students received a total of 58 international offers from different countries in Europe, Japan, UAE, Singapore, Hong Kong, and Taiwan.

### **Engineering and Technology Sector**

The highest numbers of students were recruited by the Engineering and Technology sector. In various engineering domains, 314 students were selected in 73 core companies at entry level positions. Every year around one third of the B.Tech. and dual degree students get placed in the Engineering and Technology domain. This is a decent trend for an engineering institution. They have been offered highly skilled work profile and decent remuneration package this year. Some of the profiles were in Aerospace, Artificial Intelligence, Automation, Production, Electric Vehicles, Oil and Gas, Chemical, Engineering and Machinery Design, Geological Engineer, MEP engineering, FMCG, Heavy Engineering, Drafting and Design Engineering, Industrial Design, Product Innovation, Energy Systems, Robotics, Semiconductors, Systems Design etc.

# Information Technology / Software Sector

IITB students have superior programming skills and continued to attract prestigious recruiters through campus placement over the past several years. This trend was stronger this year. Around 258 students have been offered IT/Software jobs by over 71 companies excluding P.P.O.s through the campus placement, making the IT sector one of the biggest recruiters after engineering and information technology. Profiles popular were in Software programming, Digital, Algorithm trading programming, Data Scientist, Networks, Artificial Intelligence, Cloud computing and Machine Learning. The outstanding analytical and reasoning skills of IITB graduates continued to draw recruiters from the rapidly growing field of data analytics.

#### **Consulting Sector**

Consulting has always been most attractive sector in the IITB campus due to its exponential growth curve, high pay and the associated perks. Over 87 consulting offers were made by 26 consulting companies, who visited IITB for campus placement this year. These organizations work with large corporations across the world, helping them resolve complex business problems. With the high quality of recruits these companies took last year, their return to the campus was marked by a renewed vigor. Some of the companies represent Business Consulting, EdTech, FinTech, Healthcare and MediTech.

#### **Financial Services Sector**

Financial, Banking and Fintech companies were prominent recruiters. With many of the top global companies of this sector preferring IITB, the sector saw participation of prestigious companies to recruit the brightest and the best from the campus. A variety of profiles were opened up in the sector as these companies admire the analytical and computational skills of the IITB graduates. Over 154 offers were made by 33 financial service firms this year.

#### **Research & Development Sector**

The placement season witnessed reasonable response in the number of organizations hiring fresh graduates for R&D sector. With pandemic, demand for high-end products was tepid, most companies hired less students as compared to last year. This sector has observed a steady growth, offering premier jobs in eg. Application Development, Computational Research, Drug Development, Energy Efficiency Solutions, Materials Research, Pharmaceutical Research, Scientific Writing and Research Laboratories where 46 positions were offered by 16 organizations in 2020-21.

# Start-up Companies

We also had some of the start-ups as recruiters, which were screened based on the financial and technical status. The informal work culture, opportunity to make immediate and visible contributions, chance to own equity etc. seemed to be the attractions offered by such start-ups.

Table 2: Distribution of offers in different sectors of economy excluding PPOs.

Sector	Number of Offers	Number of companies
Engineering & Technology	314	73
IT / Software	267	71
Finance	154	33
Consulting	87	26
Other	77	26
Research & Development	46	16
Education	32	9
Services	14	5
Public Sector Undertaking	10	2
Total	1001	261

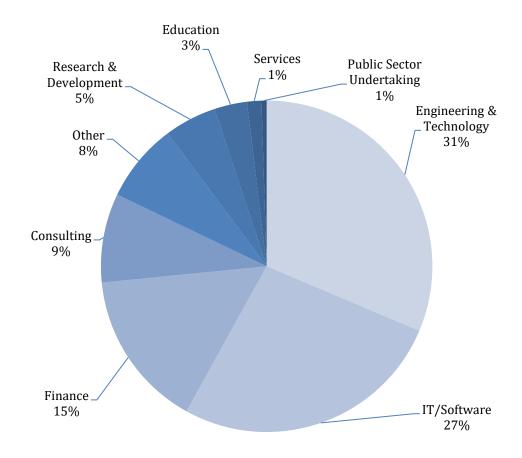


Figure 1. Distribution of offers made in different sectors.

## **Program-wise statistics**

All the registered students do not necessarily participate actively in campus placements, opting for higher studies abroad or in different stream. It is important to note that students also get placed through channels other than campus placements. The program-wise placement data is provided in Table - 3 and Figure - 2.

Note: Participated count excludes students, who opted for higher studies or had other career options, and hence de-registered from the placement process.

Table 3: Program-wise placement data 2020 – 2021 including PPOs.

Program	Registered	Participated	Placed	Percentage placed
B. Tech.	652	537	468	87.15
Dual Degree (B.Tech. + M.Tech.)	168	141	132	93.62
M. Tech.	669	566	406	71.73
2-year M.Sc.	162	77	38	49.35
M.Tech. + Ph.D.	10	5	4	80
B. Des.	18	14	12	85.71
M. Des.	63	55	48	87.27
Dual Degree(B.Des. + M.Des.)	10	9	9	100
4-year B.S.	42	26	20	76.92
Ph. D.	152	68	10	14.71
Others Programs*	24	11	3	27.27
Total	1970	1509	1150	76.21%

<sup>\*</sup>Includes M.P.P., M.U.D.E., 5 year Integrated M.Sc., B.S. + M.Sc., M.Tech. + Ph. D., M.Sc. + Ph.D., M.Phil., IDDD, M.S. by Research (Exit) Degree.

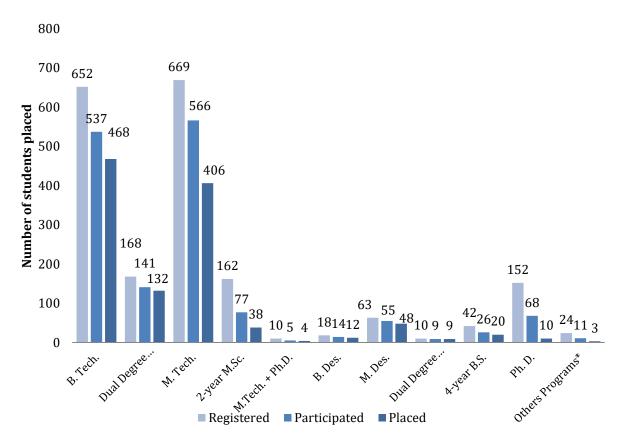


Figure 2 : Program-wise placement data

## **Department - wise statistics**

IIT Bombay provides engineering education across 23 different departments, spanning students from under-graduation to Ph. D. The placement team endeavors to get companies from core as well as non-core sectors for students. The placement statistics of students across departments including all domains of jobs offered during the placement season 2020 - 21 are shown in Table - 4.

Table 4.: Department-wise classification of offers

Department	2018-19	2019-20	2020-21
Aerospace	50	71	54
Chemical	122	122	89
Chemistry	27	18	10
Civil	102	100	98
Computer Science	207	186	199
Electrical	196	202	220
Mechanical	148	173	151
MEMS	97	97	90
Energy Science and Engineering	34	30	29
Earth Sciences	11	10	12
Physics	10	4	1
Applied Statistics and Informatics	19	22	23
Industrial Design Centre	59	59	69
Technology and Development	10	10	9
Biosciences and Bioengineering (BSBE)	15	21	5
Others Programs	79	82	91
Total	1186	1207	1150

#### **Salary-wise statistics**

The jobs offered by recruiting organizations are divided into various categories based on the gross compensation packages. Factors other than compensation package, such as job profile, past association etc. may sometimes influence the classification of a company. Salary-wise classification of total offers made in the year 2020 - 21 is shown in Table 5 and Figure 3.

Table 5: Placement	details based	d on compensation	excluding PPOs.

Range of gross salary (in Rupees) (Lakhs per annum)	Number of Companies	Number of Offers
Above 16	80	248
Between 13.5 to 16	50	151
Between 11.5 to 13.5	41	185
Between 9.5 to 11.5	40	155
Between 7.75 to 9.5	56	151
Between 6.25 to 7.75	29	77
Between 5 to 6.25	10	16
Between 0 to 5	4	16
Total	310*	1001

<sup>\*</sup>Some organizations may have offered jobs in multiple salary categories and sum total is 310.

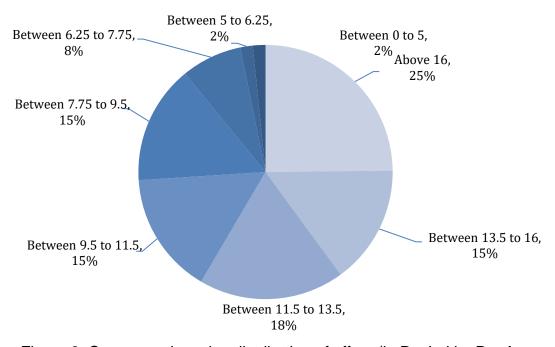


Figure 3. Compensation-wise distribution of offers.(in Rs. Lakhs Per Annum)

#### Comparison of average salary, international and Pre-Placement Offers

The Average Gross Salary offered was Rs.13.67 LPA and the average CTC was Rs. 17.91LPA. Total number of Pre-Placement Offers (PPO) was 149. The number of international offers was 58 excluding PPOs. This suggests an increasing and a positive trend in the pay package offered by various organizations (Refer to Table 6).

Table 6: Average salary, international and Pre-Placement Offer details

Description	2019 - 2020	2020 - 2021
Average Gross Salary (in LPA*)	16.06	13.67
Average CTC (in LPA*)	20.08	17.91
Total Number of International Offers	159	58
Total Number of Pre-Placement Offers	113	149

<sup>\*</sup>LPA – Lakhs per annum (in rupees)

#### Year-wise placement comparison

Despite the challenging market situation this year due to Pandemic, IITB managed to maintain a good attraction for the recruiting firms in the job market. Table 7 represents the comparison of students placed over the last three years.

Table 7: Comparison of the number of students placed in the last three years

Program	2018-19	2019-20	2020-21
B.Tech.	475	492	468
Dual Degree (B.Tech. + M. Tech.)	151	133	132
M.Tech.	402	423	406
Others	158	159	144
Total	1186	1207	1150

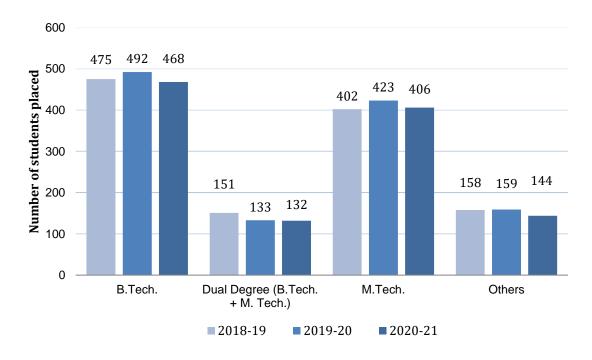


Figure 4: Comparison of the number of students placed in the last three years

# **Sector-wise statistics for different programs**

B.Tech. and M.Tech. students maintained almost the same demand amongst companies of various sectors. Sectors like Education and Engineering & Technology expressed greater interest in the students of IIT Bombay than the previous year.

Sector-wise statistics for different programs are shown in Table 8.

Table 8. Sector-wise statistics, Number of offers for different programs

Sector	B.Tech.	Dual Degree	M.Tech.	Other Programs	Total
Engineering & Technology	76	32	178	28	314
IT/Software	83	23	124	37	267
Services	122	12	4	23	163
Finance	72	29	27	26	154
Consulting	50	18	10	9	87
Education	18	1	7	6	32
Research & Development	16	7	23	6	46
Others	31	10	30	5	77
Public Sector Undertaking	5	0	3	2	10
Grand Total	468	132	406	144	1150

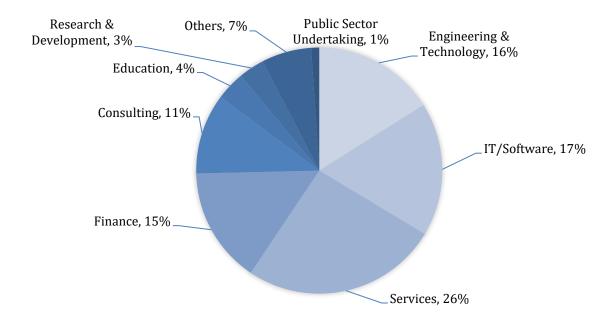


Figure 5. Sector-wise demand for B. Tech.

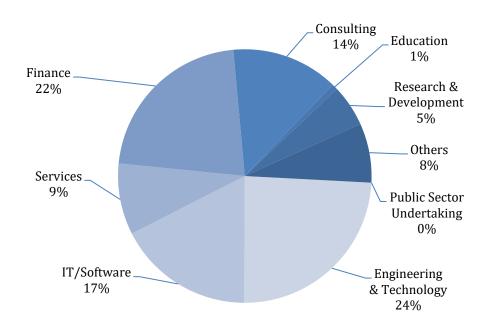


Figure 6. Sector-wise demand for Dual Degree (B.Tech. + M.Tech.

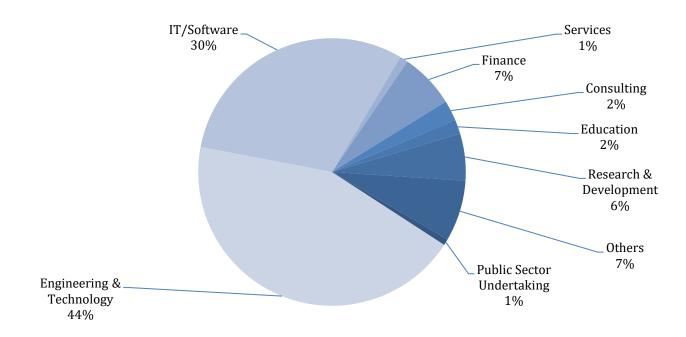


Figure 7. Sector-wise demand for M. Tech.

#### **Internships 2020 – 2021**

Industrial exposure and practical experience play a significant role while attempting to enter the corporate world. Internships provide industry exposure and real time experience but also help in one's personal growth and development. Students from their second and third year of Bachelor's appear for the internship recruitment. Keeping the diversity of students in mind and the importance of internships in context, the Placement Office strives hard to provide students with the best of the opportunities in their field of interest. Placement Office also encourages research by providing students the research internship opportunities at esteemed universities. The Internship season 2020-21 started in July 2020 and continued till June 2021. There were 940 offers. Companies have also benefited as they have offered 177 Pre-Placement Offers (PPO) out of which 149 were accepted.

#### **Department-wise internship offers**

Students from all the departments were in demand by firms and universities alike for internship positions. The demand for students from departments such as Computer Science, Mechanical and Electrical Engineering was high. A slight decrease in the number of M.Sc. and increase in Design internships was also observed in comparison with the previous year. Table 9 presents the department-wise distribution of internship offers made over the past 4 years.

Table 9: Department-wise internship offers over years

Department	2017 – 18	2018 – 19	2019 – 20	2020 – 2021
Aerospace	34	49	41	33
Chemical	131	137	109	98
Chemistry	21	25	14	20
Civil	111	100	60	49
Computer Science	220	203	207	237
Electrical	176	133	139	138
Engineering Physics	17	23	22	19
Energy	23	18	17	11
Mechanical	158	166	132	130
MEMS	88	89	59	50
Others	96	98	101	155
Total	1075	1041	901	940

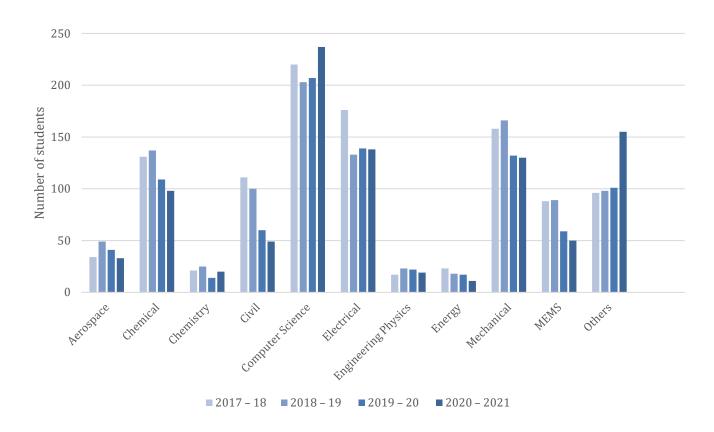


Figure 8. Department-wise internship offers over 4 years

#### Summer vs. winter internship offers

Summer internships usually begin in May and continue till mid-July, whereas winter internships are pursued in the month of December. The number of summer internship offers exceeds the number of winter internships, which is attributable mainly to the longer duration available in summer.

Total number of Summer Winter internships s 940 812 128

Table 10. Summer vs. winter internship offers

#### Companies vs. Universities internship offers

Companies of various business sectors offer internship positions to the students. This option presents an opportunity to gain industrial exposure and broaden one's skill-set in the domain of interest. A few years ago, the Institute started the credit-based internship program, by means of which the students could leverage the performance in their internship towards the academic credit requirement

Table 11. Companies vs. Universities internship offers

Total number of internships	Company offers	University offers
940	830	110

A major influence on a student's career path tends to be the internships they undertake during their third year summers. A little over half the students have pursued core internships related to their department, and about a third of all students settled for internships in sectors that were not their first choice.

#### Conclusion

The companies recruited virtually throughout the placement season this Covid – 19 pandemic year 2020. Despite the difficult circumstances, students put their best efforts. The compensation package given to our students has steadily increased over the years. The placement percentage has been gradually increased over the years, this year due to Pandemic there has been a slight drop in number of students placed. Despite the challenging situation raised due to COVID-19, the participating companies managed to honor their respective job offers except in very few cases. This clearly shows the confidence the corporates have in the Institute. The importance of the efforts, which were put are reflected well in the QS World Ranking and NIRF Ranking of IITB as well, since placement is a major contributing factor here.

Increased corporate selectivity, competitiveness, work automation, heightened student aspirations, has created a dynamic job market, and pandemic led to insecure global economy. Despite prevailing Covid -19 scenario, campus placements will be more intensely sought by both students and companies. This year, recruiters have shown the faith in our institute despite challenging situation; helped students stay motivated and encouraged fresh students join the industry. Placement team has achieved its milestones and overall number of students getting placed has remained good with our constant endeavors to create more employment opportunities. Our excellent placement record over years speaks about the value of our students to their employers.

# Annexure - 1

DEPARTMENT-WISE STATISTICS for Year 2020 – 2021				
Department	Program	Participated	Placed	% Placed
	B.Tech.	35	28	80
A a reconses Engine a ring	Dual Degree (B.Tech. + M.Tech.)	6	6	100
Aerospace Engineering	M.Tech.	43	20	46.51
	Ph.D.	3	0	0
Department total		87	54	62.07
	B.Tech.	87	73	83.91
	Dual Degree (B.Tech. + M.Tech.)	-	-	-
Chemical Engineering	M.Tech.	26	15	57.69
	Dual Degree (M.Tech. + Ph.D.)	1	0	0
	Ph.D.	8	1	12.5
Department total		122	89	72.95
	B.S.	13	10	76.92
	Dual Degree (B.S. + M.Sc.)	-	-	-
Chemistry	M.Sc.	9	0	0
	Dual Degree (M.Sc. + Ph.D.)	1	0	0
	Ph.D.	4	0	0
Department total		27	10	37.04
	B.Tech.	66	56	84.85
0: 15	Dual Degree (B.Tech. + M.Tech.)	5	5	100
Civil Engineering	M.Tech.	55	37	67.27
	Ph.D.	2	0	0
Department total		128	98	76.56
	B.Tech.	110	109	99.09
	Dual Degree (B.Tech. + M.Tech.)	1	1	100
Computer Science & Engineering	M.Tech.	89	88	98.88
Linginooning	M.S. by research (Exit Degree)	1	1	100
	Ph.D.	1	0	0
Department total		202	199	98.51
Fauth Calassas	M.Tech.	14	6	42.86
Earth Sciences	M.Sc.	22	6	27.27
Department total		36	12	33.33

Department	Program	Participated	Placed	% Placed
	B.Tech.	61	57	93.44
	Dual Degree (B.Tech. + M.Tech.)	55	54	98.18
	M.Tech.	111	101	90.99
Electrical Engineering	M.S. by research (Exit Degree)	1	0	0
	Dual Degree (M.Tech. + Ph.D.)	3	3	100
	Ph.D.	13	5	38.46
Department total		244	220	90.16
Humanities & Social	M.Phil.	2	1	50
Sciences	Ph.D.	1	0	0
Department total		3	1	33.33
Mathematics	M.Sc.	3	2	66.67
Department total		3	2	66.67
	B.Tech.	89	78	87.64
Machanical Engineering	Dual Degree (B.Tech. + M.Tech.)	29	29	100
Mechanical Engineering	M.Tech.	67	39	58.21
	Ph.D.	13	1	7.69
Department total		198	151	76.26
	B.Tech.	67	48	71.64
Metallurgical Engineering and Materials Science	Dual Degree (B.Tech. + M.Tech.)	19	15	78.95
and Materials Science	M.Tech.	46	26	56.52
	Ph.D.	5	1	20
Department total		137	90	65.69
	M.Sc.	7	1	14.29
Physics	Dual Degree (M.Sc. + Ph.D.)	-	-	-
	Ph.D.	2	0	0
Department total		9	1	11.11
	B.Des.	14	12	85.71
Industrial Design Centre	Dual Degree (B.Des. + M. Des.)	9	9	100
	M.Des.	55	48	87.27
Department total		78	69	88.46
Energy Science and	Dual Degree (B.Tech. + M.Tech.)	20	16	80
Engineering	M.Tech.	22	13	59.09

	Dual Degree (M.Sc. + Ph.D.)	1	0	0
Department total		43	29	67.44

Department	Program	Participated	Placed	% Placed
Energy Science and Engineering	Ph.D.	2	0	0
Department total		45	29	64.44
	M.Tech.	18	7	38.89
Environmental Science &	M.Sc.	-	-	-
Engineering	Dual Degree (M.Sc. + Ph.D.)	1	0	0
	Ph.D.	1	0	0
Department total		20	7	35
Industrial Engineering &	M.Tech.	19	15	78.95
Operations Research	M.Sc.	6	5	83.33
Department total		25	20	80
Systems & Control	M.Tech.	8	5	62.5
Engineering	Ph.D.	2	0	0
Department total		10	5	50
Engineering Physics	B.Tech.	21	19	90.48
Engineering Physics	Dual Degree (B.Tech. + M.Tech.)	6	6	100
Department total		27	25	92.59
Applied Statistics and Informatics	M.Sc.	27	23	85.19
Department total		27	23	85.19
	M.Tech.	12	3	25
Biosciences and Bioengineering	M.Sc.	3	1	33.33
2.001.99	Ph.D.	2	1	50
Department total		17	5	29.41
	B.Tech.	1	0	0
Geoinformatics and Natural Resources Engineering	M.Tech.	23	23	100
	Ph.D.	2	1	50
Department total		26	24	92.31
Technology and	M.Tech.	10	8	80
Development	Dual Degree (M.Tech. + Ph.D.)	1	1	100

	Ph.D.	4	0	0
Department total		15	9	60

Department	Program	Participated	Placed	% Placed
Educational Tachnology	M.Tech.	3	0	0
Educational Technology	Ph.D.	1	0	0
Department total		4	0	0
Climate Studies	Ph.D.	-	-	-
Department total		-	-	-
Center for Research In Nanotechnology and Science	Ph.D.	2	0	0
Department total		2	0	0
Centre for Policy Studies	M.P.P	2	1	50
Department total		2	1	50
Centre for Urban Science and Engineering	M.U.D.E	2	0	0
Department total		2	0	0
Economics	B.S.	13	10	76.92
Department total		13	10	76.92
Total of All Departments		1509	1150	76.21