

Placement and Internship Report

Academic Year 2021-2022



Placement Office

Indian Institute of Technology, Bombay
July 2022

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Preface

Introduction

IIT Bombay has the privilege of admitting the best pool of students into the engineering, science and management programs. The Placement Office is the nodal point for recruitment of students from the institute. The Placement Season at IIT Bombay was a virtual event throughout the year, with a few in person campus interviews in the summer. The recruited students have succeeded in living up to the expectations of the recruiters worldwide. The presence of world-class research facilities, extensive institute-industry collaborations, good international exchange programs, interdisciplinary scientific research collaborations and excellent industrial training opportunities help the students of IIT Bombay to excel and get ahead in the competitive job market.

Placement Season 2021 – 22

The Placement Drive at IIT Bombay was a year-long event, which started in the month of July 2021 and will end on June 30, 2022. Company officials started approaching the office during months of July and August 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 2021. Pre-Placement Talks (PPT) and few companies conducted extra screening tests prior to the interviews. There were preparatory activities conducted by the placement cell, in collaboration with other firms. Interview procedure of phase 1, the placement were virtually conducted online this academic year, the event was conducted from December 1st to 15th of 2021, which witnessed a participation of over 300 companies. A total of 2056 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 two is conducted from January 15 to June 30, 2022. For the students of the IDC department, the interviews were conducted between December 6th to 15th, 2021 during phase one. December 1, 2021, the first day of campus placements, witnessed some of the prestigious corporates offering coveted jobs across sectors and recruiting in large numbers, which was pivotal for the success of the placement season 2021 - 22. IIT Bombay has achieved the highest ever number of students placed this year with total number of accepted offers being 1431 as on May 15th 2022 compared to 1150 last year. The highest number of offers was rolled out by the Engineering and Technology sector, ascertaining the technical proficiency of IIT Bombay students. Placement season 2021-22 has been very successful considering the market situation due the efforts put in by the placement office and the students. Esteemed recruiters have shown faith in IITB and the sector's prominent hiring was done by Core Engineering, IT/Software, Finance and Consulting.

IIT Bombay's Placement season started off with a good note on Day One i.e. Dec 1 and lasted till Dec 15 along with a break day on Dec 5. December 1 - 4, 2021 the first four days 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 2021- 22.

Placement Season 2021 – 22

Table 1: Highlights in Brief

Key Metric	Details
Total Number of Companies offered jobs	332
Total Number of Offers in both phases	1878
Total Number of Accepted Offers	1441
Pre – Placement Offers	201
International Job Offers	66
Highest Domestic Salary (C.T.C.)	INR 1.8 Cr
Mean International C.T.C. Salary	INR 60.9 LPA
Mean Salary Package	INR 22.7 LPA
Highest International Salary	INR 2.1 Cr
Top Recruiting Sector	Engineering & 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

While expanding our global outreach, we have received a total of 66 international offers from different countries like the USA, Japan, UAE, Singapore, Netherlands, Hong Kong and Taiwan. The highest numbers of students were recruited by the Engineering and Technology sector.

Engineering and Technology Sector

The highest numbers of students were recruited by the Engineering and Technology sector. In various engineering domains, 434 students were selected in 87 core companies at entry level positions. Every year around a 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 370 students have been offered IT/Software jobs by over 86 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 145 consulting offers were made by 31 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 205 offers were made by 54 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 56 positions were offered by 14 organizations in 2021-22.

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
Consulting	145	31
Education	29	9
Engineering & Technology	434	87
Finance	205	54
IT/Software	370	86
Public Sector Undertaking	5	1
Research & Development	56	14
Services	15	7
Others	182	43
Total	1441	332

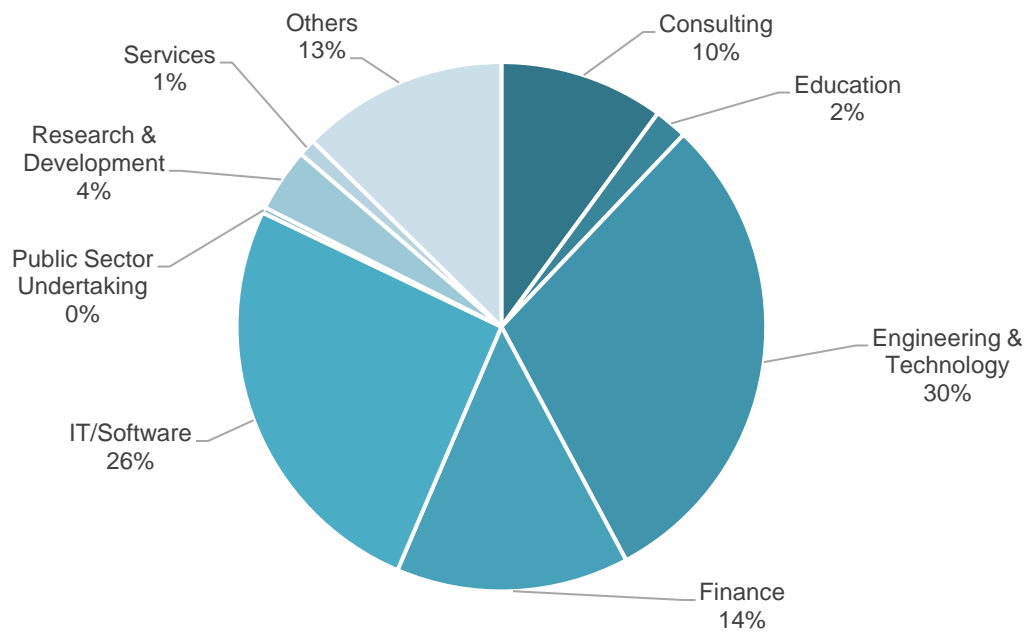


Figure 1: Distribution of offers made in different sectors.

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 2021 – 2022 including PPOs.

Program	Registered	Participated	Placed	Percentage placed
B.Des.	19	17	12	71
B.S.	50	43	35	81
B.Tech.	657	566	544	96
Dual Degree (B.Des. + M. Des.)	10	6	6	100
Dual Degree (B.Tech. + M.Tech.)	206	188	184	98
M.Des.	56	48	38	79
M.P.P	20	11	5	45
M.Phil.	13	6	2	33
M.Sc.	151	77	61	79
M.Tech.	670	582	523	90
Ph.D.	177	62	28	45
Others	26	6	3	50
Grand Total	2055	1612	1441	89

*Includes Dual (B.Des. + M.Des.), Dual (B.S+M.S), Dual (M.Sc. + Ph.D.), Dual (M.Tech. + Ph.D.),

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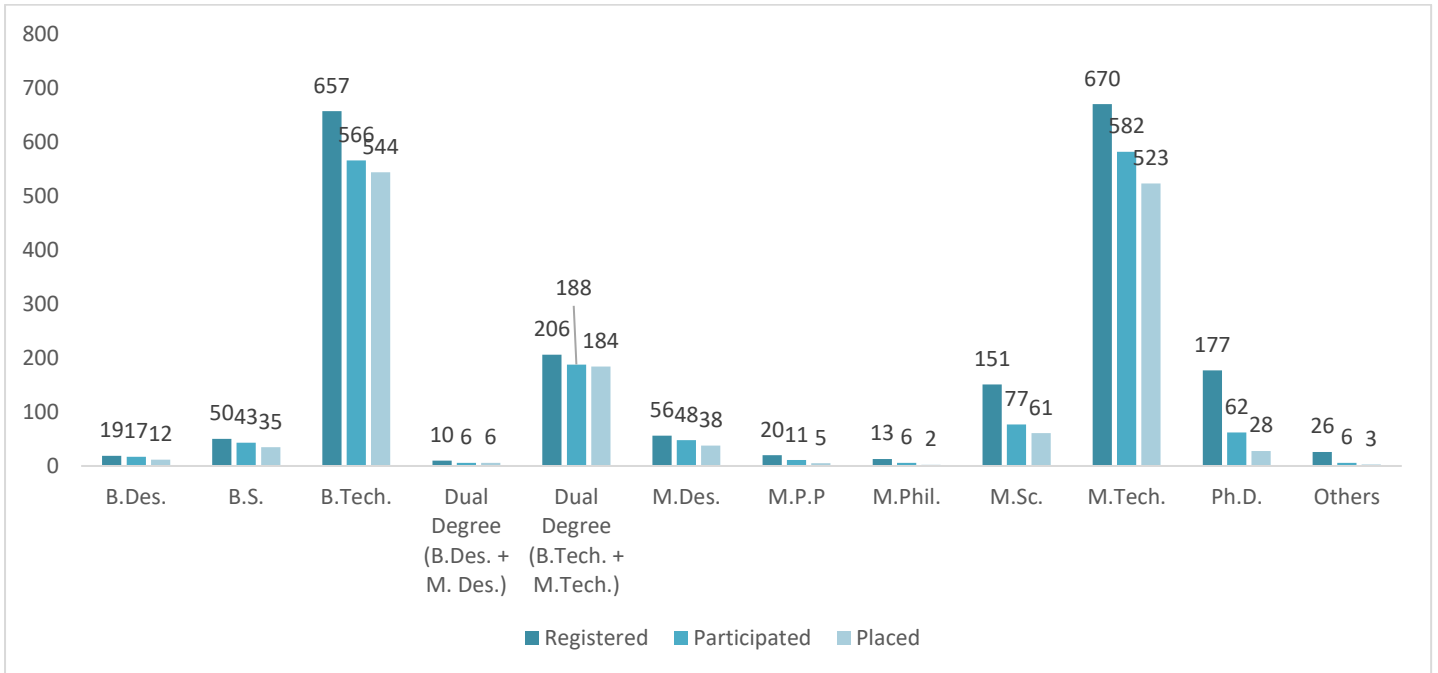


Figure 2: Program-wise placement data

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 2021-22 are shown in Table-4.

Table 4: Department-wise classification of offers

Department	2019-20	2020-21	2021-22
Aerospace Engineering	71	54	76
Applied Statistics and Informatics	22	23	29
Biosciences and Bioengineering	21	5	7
Chemical Engineering	122	89	135
Chemistry	18	10	17
Civil Engineering	100	98	99
Computer Science & Engineering	186	199	236
Earth Sciences	10	12	13
Electrical Engineering	202	220	257
Energy Science and Engineering	30	29	32
Industrial Design Centre	59	69	56
Mechanical Engineering	173	151	180
Metallurgical Engineering and Materials Science	97	90	127
Physics	4	1	1
Other Programs	82	91	176
Total	1207	1150	1441

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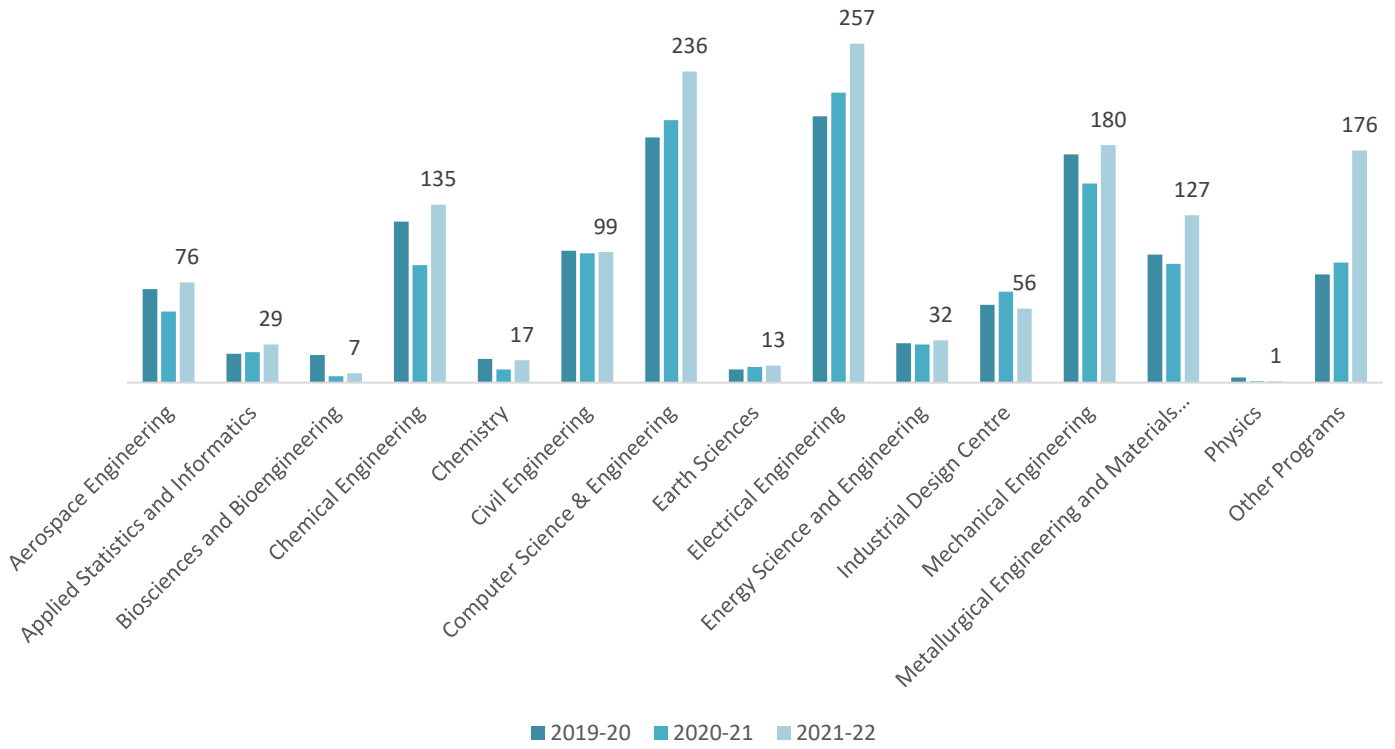


Figure 3: Department-wise classification of offers

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 2021-22 is shown in Table 5 and Figure 3.

Table 5: Placement details based on compensation excluding PPOs.

Range of gross salary (in Rupees) (Lakhs per annum)	Number of Offers	Number of Companies
Above 16	562	124
Between 13.5 to 16	284	71
Between 11.5 to 13.5	230	61
Between 9.5 to 11.5	172	47
Between 7.75 to 9.5	117	42
Between 6.25 to 7.75	54	24
Between 5 to 6.25	17	9
Between 0 to 5	5	3
Total	1441	381*

Note: * is not the sum total of companies participated as some companies may have given multiple jobs in different salary bands

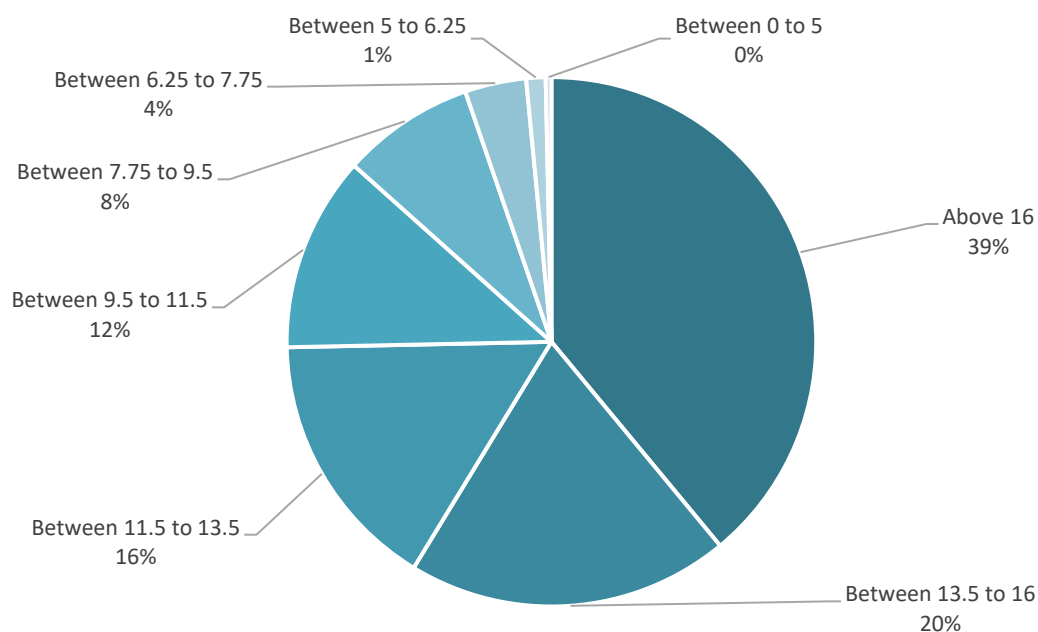


Figure 4: Compensation-wise distribution of offers.(in Rs. Lakhs Per Annum)

Comparison of average salary, international and Pre-Placement Offers

The Average Gross Salary offered was Rs. 16.5 LPA and the average salary (Based on CTC) was Rs. 21.5 LPA.

Total number of Pre-Placement Offers (PPO) was 201.

The number of international offers was 66 excluding PPOs.

This suggests an increasing and a positive trend in the pay package offered by various organisations (Refer to Table 6).

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

Description	2020 -2021	2021 - 2022
Average Gross Salary (in LPA*)	13.67	16.50
Average CTC(in LPA*)	17.91	21.50
Total Number of International Offers	58	66
Total Number of Pre-Placement Offers	149	201

*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	2019-20	2020-21	2021 - 22
B.Tech.	492	468	544
Dual Degree (B.Tech. +M. Tech.)	133	132	184
M.Tech.	423	406	523
Others	159	144	190
Total	1207	1150	1441

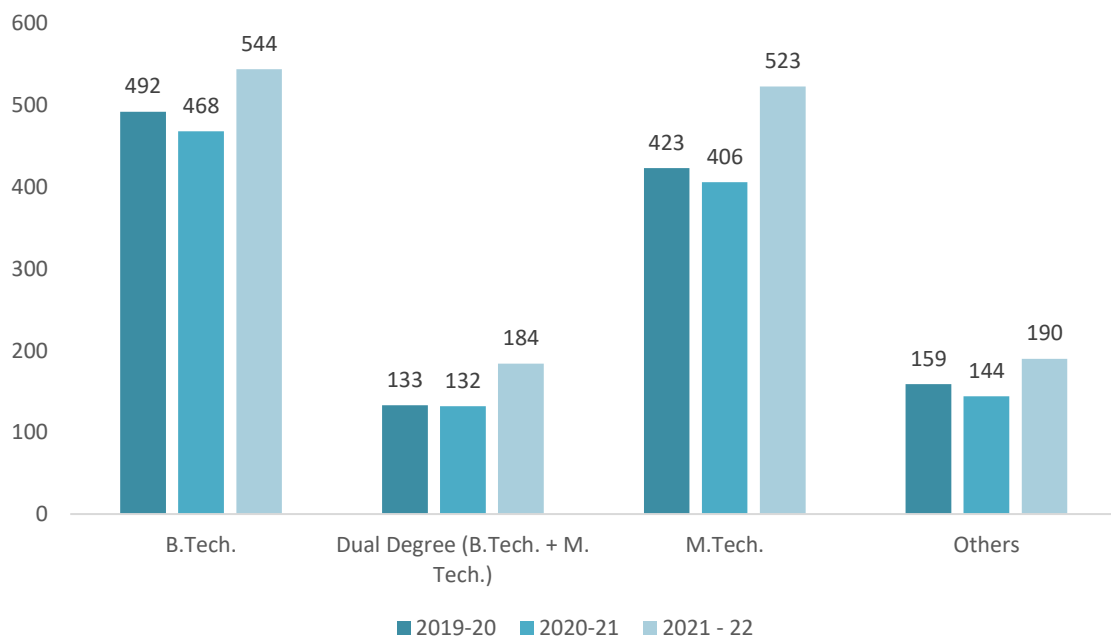


Figure 5: Comparison of the number of students placed in the last three years

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

Sectors	B.Tech.	Dual Degree	M.Tech.	Other Programs	Total
Engineering & Technology	106	54	235	39	434
IT/Software	141	36	146	47	370
Finance	99	32	45	29	205
Other	88	24	41	29	182
Consulting	78	28	18	21	145
Research & Development	10	6	29	11	56
Education	15	1	4	9	29
Public Sector Undertaking	0	0	1	4	5
Services	7	3	4	1	15
Total	542	184	511	188	1441

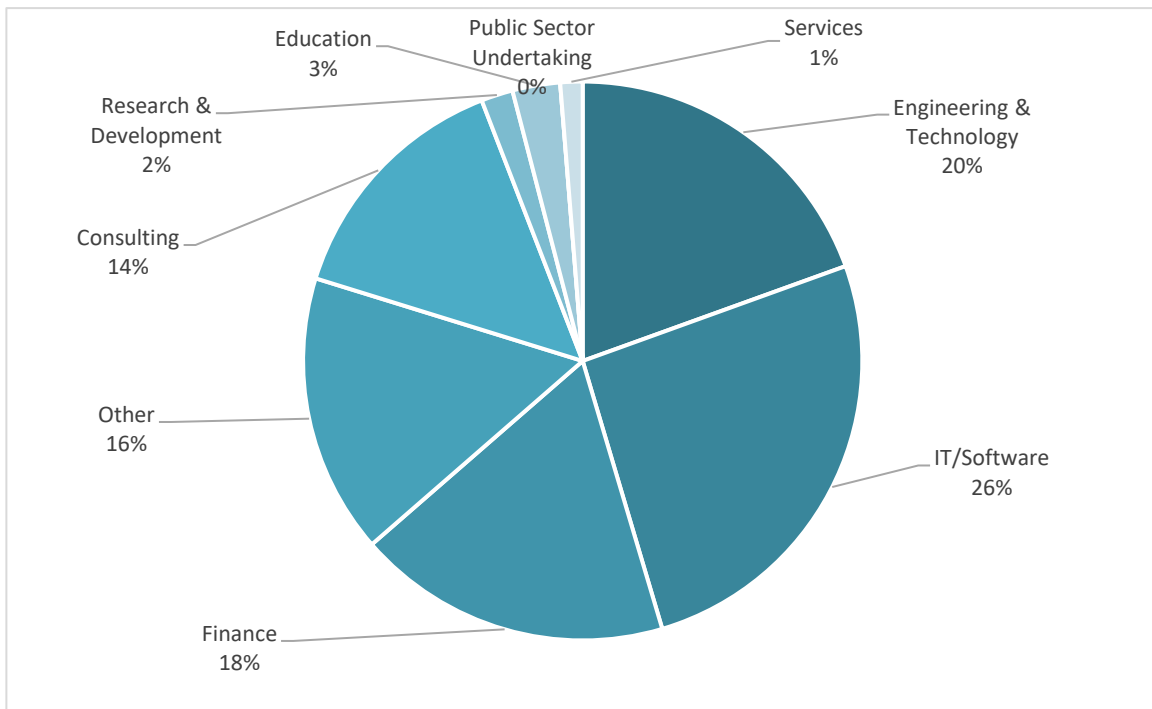


Figure6: Sector-wise demand for B.Tech

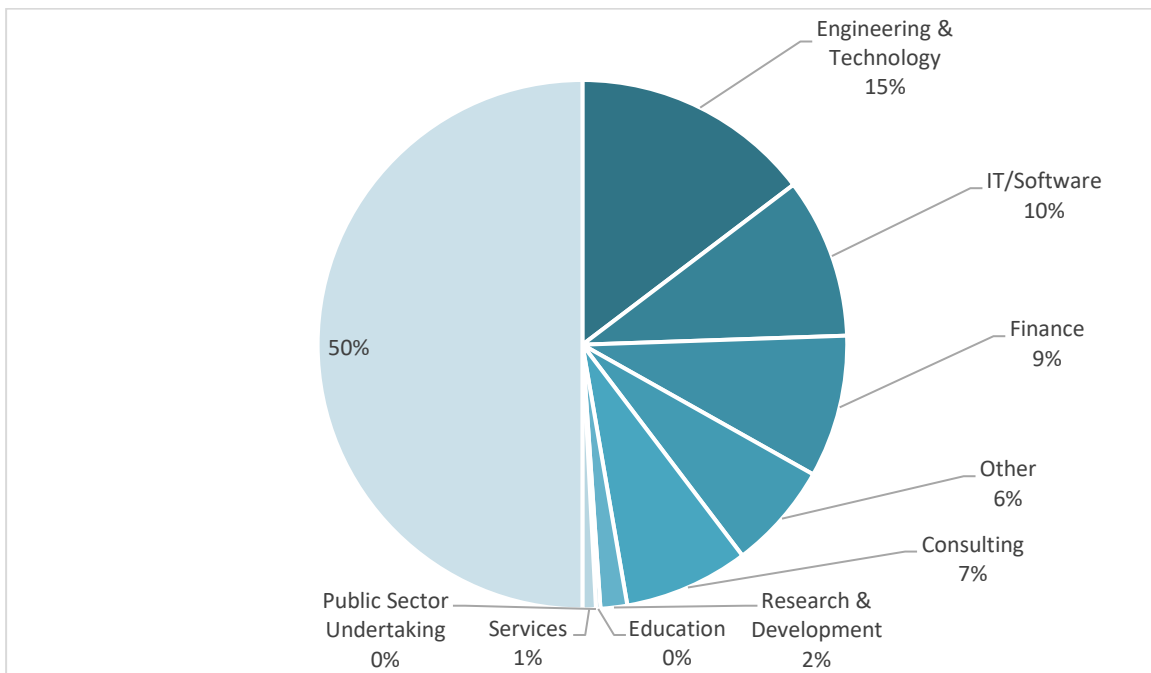


Figure 7: Sector-wise demand for Dual Degree (B.Tech. + M.Tech.)

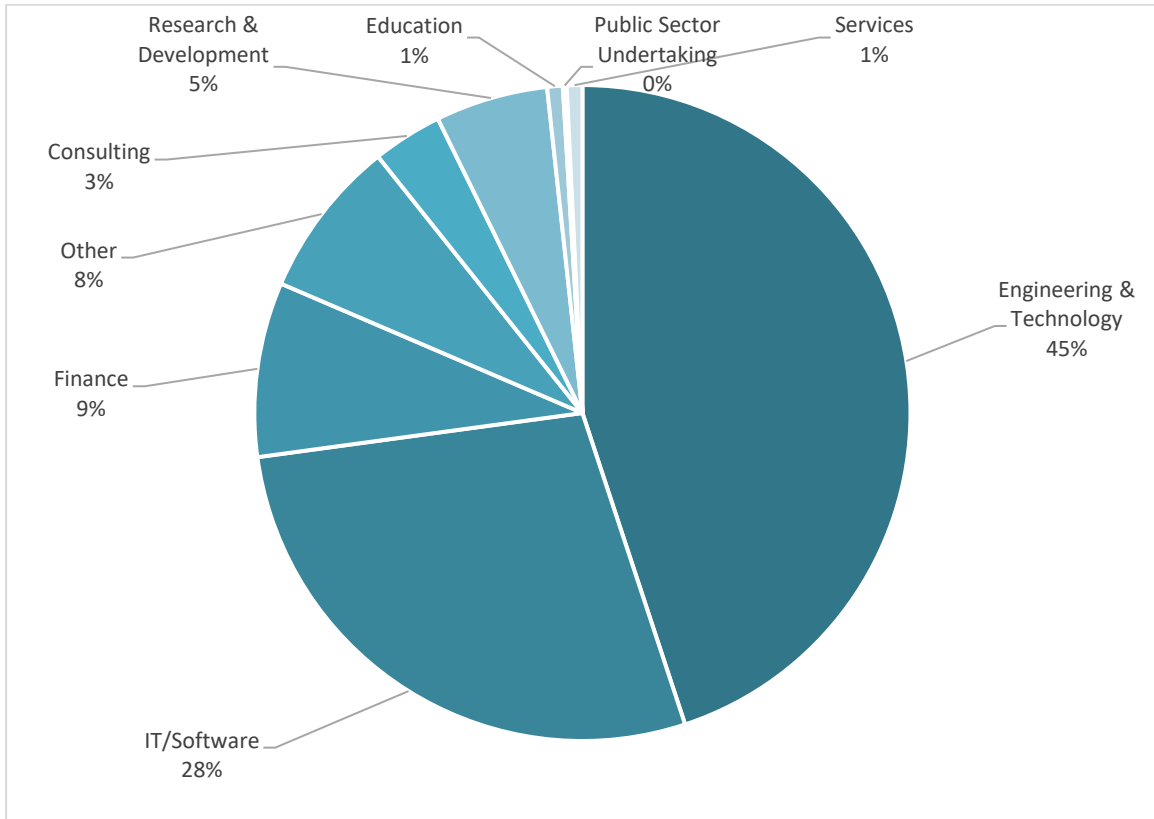


Figure 8: Sector-wise demand for M. Tech.

Internships 2021–2022

Pre-final year students have been offered Pre-placement Offers (PPOs) at the end of their internship term. PPO at IIT Bombay have improved this year, recruiter interest was highest for computer science engineering with most openings in advanced software programming in Big Data, IoT, AI and ML, 5G, R&D and consulting. It is expected that the rising PPOs will reduce the institute's dependence on final placements. This year students have received 248 PPOs, of which 201 have been accepted by students. In 2020, due to the pandemic, companies made 153 PPOs and most were accepted. The hiring trend has been on the rise specifically for technical roles, with more companies giving PPO through internships.

Department-wise internship offers

This year students from all the departments were in demand by firms and universities alike for internship positions, with a fifteen percent (15%) increase in demand. The demand for students from departments such as Computer Science was strong, Mechanical and Electrical Engineering was high. A slight decrease in the number of M.Sc. internships 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	2018–19	2019 –20	2020–2021	2021 - 2022
Aerospace	49	41	33	58
Chemical	137	109	98	112
Chemistry	25	14	20	19
Civil	100	60	49	85
Computer Science	203	207	237	252
Electrical	133	139	138	176
Engineering Physics	23	22	19	38
Energy	18	17	11	20
Mechanical	166	132	130	155
MEMS	89	59	50	86
Others	98	101	155	194
Total	1041	901	940	1195

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.

Table 10: Summer vs. winter internship offers

Total number of internships	Summer internships	Winter internships
1195	924	271

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
1195	1085	110

Conclusion

The companies recruited virtually throughout the placement season due to Covid – 19 pandemic restrictions in academic year 2021 - 22. The number of registered students in the 2021 -2022 placement drive has increased by 15% in comparison with the two – year –ago – number, viz. from 1784 in 2019 to 2056 in 2021. IIT Bombay has achieved the highest ever number of students placed this year with total number of accepted offers being 1431 as on May 15th compared to 1150 last year. This is 25 % increase in total number of students placed indicating higher selections due to higher buoyancy in demand. Taking into account the total number of participating students, Placement percentage is 88.77%. The overall average salary packages based on CTC offered increased by 27.3 % over last year from Rs. 17.91 LPA to Rs. 22.8 LPA. This may be attributed to resurgence of the job generation after resumption of economic activity subsequent to the COVID–19 pandemic. During internship recruiting season, total of 1087 students secured apprenticeship opportunities and there was a fifteen percent (15%) increase in demand for students this year. The total number of companies offering jobs saw an **11 %** increase from 292 last year to 325 companies participating this year. The placements were successfully completed in two phases, clearly demonstrating the demand of IIT Bombay graduates among the top recruiters in various segments of the economy. Placement team has achieved highest number of students getting placed with constant endeavor to create more employment opportunities.

Annexure - 1

DEPARTMENT-WISE STATISTICS for Year 2021 – 2022				
Department	Program	Participated	Placed	% Placed
Aerospace Engineering	B.Tech.	33	32	96.97
	Dual Degree (B.Tech. + M.Tech.)	12	11	91.67
	M.Tech.	36	33	91.67
	Ph.D.	0	0	0
Department total		81	76	93.83
Chemical Engineering	B.Tech.	100	96	96.00
	Dual Degree (B.Tech. + M.Tech.)	9	9	100
	M.Tech.	32	30	93.75
	Dual Degree (M.Tech. + Ph.D.)	1	0	0
	Ph.D.	5	0	0
Department total		147	135	94.41
Chemistry	B.S.	15	11	73.33
	Dual Degree (B.S. + M.Sc.)	0	0	0.00
	Dual Degree (B.S. + M.Tech.)	1	1	100
	M.Sc.	5	4	80.00
	Dual Degree (M.Sc. + Ph.D.)	0	0	0
	Ph.D.	1	1	100
Department total		22	17	77.27
Civil Engineering	B.Tech.	69	62	89.86
	Dual Degree (B.Tech. + M.Tech.)	8	8	100
	M.Tech.	38	28	73.68
	Ph.D.	1	1	100
Department total		116	99	85.34
Computer Science & Engineering	B.Tech.	117	116	99.15
	Dual Degree (B.Tech. + M.Tech.)	-	-	-
	M.Tech.	117	117	100
	M.S. by research (Exit Degree)	-	-	-
	Ph.D.	3	3	100
Department total		237	236	99.58
Earth Sciences	M.Tech.	14	1	7.14
	M.Sc.	19	11	57.89

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	Dual Degree (M.Sc. + Ph.D.)	1	1	100
Department	Program	Participated	Placed	% Placed
Department total		34	13	38.23
Electrical Engineering	B.Tech.	61	60	98.36
	Dual Degree (B.Tech. + M.Tech.)	70	70	100
	M.Tech.	125	120	96.00
	M.S. by research (Exit Degree)	-	-	-
	Dual Degree (M.Tech. + Ph.D.)	1	1	100
	Ph.D.	14	6	42.86
Department total		271	257	94.83
Humanities & Social Sciences	M.Phil.	6	2	33.33
	Ph.D.	-	-	-
Department total		6	2	33.33
Mathematics	B.S.	6	6	100
	M.Sc.	8	6	75.00
	Integrated M.Sc.	1	1	100
Department total		15	13	86.67
Mechanical Engineering	B.Tech.	96	93	96.86
	Dual Degree (B.Tech. + M.Tech.)	38	37	97.37
	Dual Degree (M.Tech. + Ph.D.)	1	0	0
	M.Tech.	45	43	95.56
	Ph.D.	19	7	36.84
Department total		199	180	90.45
Metallurgical Engineering and Materials Science	B.Tech.	68	64	94.12
	Dual Degree (B.Tech. + M.Tech.)	22	22	100
	M.Tech.	45	38	84.44
	Ph.D.	9	3	33.33
Department total		144	127	88.19
Physics	M.Sc.	2	1	50.00
	Dual Degree (M.Sc. + Ph.D.)	-	-	-
	Ph.D.	0	0	0
Department total		2	1	50.00
Industrial Design Centre	B.Des.	17	12	70.59
	Dual Degree (B.Des. + M. Des.)	6	6	100
	M.Des.	48	38	79.17
	Ph.D	1	0	0

Department	Program	Participated	Placed	% Placed
Department total		72	56	77.877
Energy Science and Engineering	Dual Degree (B.Tech. + M.Tech.)	24	22	91.67
	M.Tech.	12	10	83.33
	Dual Degree (M.Sc. + Ph.D.)	0	0	0
	Ph.D.	1	0	0
Department total		37	32	86.48
Environmental Science & Engineering	M.Tech.	13	9	69.23
	M.Sc.	0	0	0
	Dual Degree (M.Sc. + Ph.D.)	0	0	0
	Ph.D.	0	0	0
Department total		13	9	69.23
Industrial Engineering & Operations Research	M.Tech.	21	19	90.48
	M.Sc.	12	10	83.33
Department total		33	29	87.88
Systems & Control Engineering	M.Tech.	11	11	100
	Ph.D.	4	4	100
Department total		15	15	100
Engineering Physics	B.Tech.	22	21	95.45
	Dual Degree (B.Tech. + M.Tech.)	4	4	100
Department total		26	25	96.15
Applied Statistics and Informatics	M.Sc.	30	29	96.67
Department total		30	29	96.67
Biosciences and Bioengineering	M.Tech.	12	7	58.33
	M.Sc.	1	0	0
	Ph.D.	0	0	0
Department total		13	7	58.84
Geo-informatics and Natural Resources Engineering	B.Tech.	0	0	0
	M.Tech.	23	23	100
	Ph.D.	0	0	0
Department total		23	23	100
Technology and Development	M.Tech.	31	29	93.55
	Dual Degree (M.Tech. + Ph.D.)	1	0	0
	Ph.D.	1	1	100
Department total		33	30	90.91

Department	Program	Participated	Placed	% Placed
Educational Technology	M.Tech.	2	2	100
	Ph.D.	0	0	0
Department total		2	2	100
Climate Studies	Ph.D.	0	0	0
Department total		0	0	0
Center for Research In Nanotechnology and Science	Ph.D.	1	0	0
Department total		1	0	0
Centre for Policy Studies	M.P.P	11	5	45.45
Department total		11	5	45.45
Centre for Urban Science and Engineering	M.U.D.E	5	3	60.00
Department total		5	3	60.00
Economics	B.S.	22	18	81.82
Department total		22	18	81.82
Centre of Studies in Resources Engineering	Ph.D.	2	2	100
Department total		2	2	100
Total of All Departments		1612	1441	89.39