4.7 Replies to questions asked in the parliament [Section4(I)(d)(2)]		
S.No	**Question No.**	**Details of Questions asked and Replies given**
Rajya Sabha Questions and Replies		
1	RSUQ1227	(a) the details of the expenditure on lawyers' fees and other related expenses incurred by Government on litigation where Government is a party during the last five years; and Reply: NIL.
		(b) the details of the expenditure on lawyer's fees and other expenses incurred by Government on litigation initiated by it, as well as litigation for dispute inter-se Government Ministries, Departments and Public Sector Undertaking during the last five years; and Reply: NIL.
		c) the details of steps taken by the government to reduce expenditure on litigation? Reply: NIL.
2	RSUQ5326	a) whether Government has initiated plans in the direction of UGC's recent decision to permit select IITs to set up campuses abroad: Reply: MoE may kindly reply.
		b) if so, the details thereof; - Not applicable.
		c) the data on the shortage of teaching faculty as compared to available positions in IITs;

S.No.	Name of the institue	Student Strength	Faculty Strength in position	Ratio	Remarks
1	IIT Tirupati	1060	91	8.6 : 1	The student and faculty ratio in IITs is 10 : 1. We have admitted 1060 students as on 2020-21 academic year and at present we have faculty strength of 91 as against sanctioned strength of 106. The recruitment for the balance positions is planned during April/May 2021 and Institute will have full strength of faculty by beginning of 2021-22 academic year.

d)   the steps being taken by the Government to emphasise on the diversification of IITs to promote them as a global brand of educational institutions?

Reply: MoE may kindly reply.

3	RSUQ3380	(a) whether large number of faculty posts under SC/ST/OBC reservation category are vacant in various IITs; (b) if so, the details of such vacant posts in each of the IITs; and (c) the reasons for not filling such vacancies? Reply : Enclosed in Annexure 1

4	RSUQ 3393 & RSUQ 1722	a) a comprehensive list of central educational institutions established in Andhra Pradesh and Uttar Pradesh since 2016?
		
		Reply: Indian Institute of Technology Tirupati- started in 2015
		              We do not have any record pertaining to other institutes.
		              Ministry of Education shall provide the details of other institutes established in AP other than IIT Tirupati.
		
		b) The details for each institute like the courses offered by them, annual student intake, teacher, non-faculty strength etc.;

Reply: Details of IIT Tirupati are as follows
I. Courses offered by IIT Tirupati

	Programme	Department
UG	B.Tech	Chemical Engineering
		Civil & Environmental Engineering
		Computer Science and Engineering
		Electrical Engineering
		Mechanical Engineering
PG	M.Sc	Mathematics & Statistics
		Physics
		Chemistry
	M.Tech	Civil & Environmental Engineering: 1.Environmental and Water Resources Engineering 2. Structural Engineering 3.Transportation and Infrastructure Engineering 4.Geotechnical Engineering
		Computer Science and Engineering
		Electrical Engineering: Signal Processing and Communication
		Mechanical Engineering: Design and Manufacturing
	MS	Chemical Engineering
		Civil & Environmental Engineering
		Computer Science and Engineering

		Electrical Engineering
		Mechanical Engineering
Ph.D.	Ph.D.	Chemical Engineering
		Chemistry
		Civil & Environmental Engineering
		Computer Science and Engineering
		Electrical Engineering
		Humanities & Social Sciences
		Mathematics & Statistics
		Mechanical Engineering
		Physics

II.   Annual Student Intake for Academic Year 2020 - 21

VI. Student intake (UG, PG and Ph.D) Academic Year 2020-21										
	UG		PG (MS)		Ph.D.		PG (M.Sc)		PG (M.Tech.)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
General	78	18	6	1	27	9	19	1	27	1
SC	28	8	0	0	0	1	7	0	11	0
ST	13	5	0	0	0	0	3	0	5	0
OBC	51	13	2	3	14	6	11	1	17	1
EWS	18	5	1	0	2	0	3	0	7	0
Total	188	49	9	4	43	16	43	2	67	2

III.   Faculty strength: 91 as on 31-01-2021

IV.   Staff strength: 77 as on 31-01-2021.

c) The number of students graduated from each of these institutes so far;

Reply: Graduated students from IIT Tirupati

Year	B.Tech	MS (Research)	M.Tech
2019	103	1	-
2020	104	4	47

d) The total sanctioned budget for the full-fledged development of each one of them:

Reply:

The total sanctioned budget for the full-fledged development (covering all phases) of IIT Tirupati is Rs. 3,125.49 Crores.

DPR has been submitted for Rs. 3,125.49 Crores from 2017-2024 to construct and operate a full-fledged campus for 2,500 students.

Cabinet has approved the first stage 2017-2021 (since revised to October 2022) for Rs. 1,074.40 Crores consisting of Rs. 765.90 Crores for civil works. The second stage budget to the tune of Rs. 2,051.09 Crores is to be approved by the cabinet.

e) the total budget released so far for each one of them; and

Reply: Total budget released so far for IIT Tirupati:

GRANTS RECEIVED FROM MHRD							Rs In Crores
HEADS	15-16	16-17	17-18	18-19	19-20	20-21	Total
MHRD GRANTS	₹ 18.00	₹ 28.99	₹ 69.75	₹ 74.15	₹ 56.18	₹ 66.40	₹ 313.47
HEFA(Repayments)				₹ 119.86	₹ 40.93	₹ 78.25	₹ 239.04
TOTAL	₹ 18.00	₹ 28.99	₹ 69.75	₹ 194.01	₹ 97.11	₹ 144.65	₹ 552.51

f) the plan for the release of balance funds and for full-fledged development of these institutes?

Reply: As per the Detailed Project Report, the balance amount receivable up to October 31, 2022 is Rs. 521.89 Crores out of Rs. 1,074.40 Crores approved by the cabinet. Institute/ Ministry of Education to seek Cabinet's approval for the balance fund of Rs. 2,051.09 Crores.

5	RSUQ 2396	a) Whether the Ministry has issued any direction / guidelines for constituting SC/ST/OBC Cells or Equal Opportunity Cells in the IITs, if so, the details there of;
		Reply: Instructions have been received from the Ministry to constitute SC/ST/OBC Cells.
		b) Whether any IITs have setup SC/ST/OBC Cells or Equal Opportunity Cells in their campus, if so, the details there of and if not, the reasons there for; and
		Reply: SC/ST Cell, Liaison Officer for SC/ST and Liaison Officer for OBC have been appointed in IIT Tirupati.
		c) whether any of the IITs have set up the Special Academic Support Programs to help with the academic deficiencies of their students especially for SC, ST and OBC Students, if so, the details there for? the details on how cut-offs are decided for each social category?
		Reply: Institute has set up the following academic support programs for the category students with academic deficiencies:
		1. PAL (Peer Assisted Learning) for all the students who don't perform well in academics.

		2. Summer courses for such students
6	RSUQ4075	a) the details of the applicability of existing reservation norms in Ph.D. and postgraduate programme admissions in IITs through seats which are not funded by Government sources, like research project staff, sponsored, self-financed, external and part-time researchers; Reply: There are no seats available which are not funded from government sources.
		b) whether cut-off marks for SC/ST/OBC/EWS categories, decided by the various departments of IITs, for selection to their research programmes are regulated by any directives issued by Government/courts; and Reply: There are no specific instructions on the same. However, the relaxations in the cut offs for eligibility are applicable for SC/ST/OBC/EWS category students.
		c) the details on how cut-offs are decided for each social category? Reply: Generally at IIT Tirupati, if the cut off for Gen is X then for EWS/OBC it is X- 5 and for SC/ST/PwD it is X- 10.
7	RSUQ3285	a) whether none of the 26 departments in IIT Bombay managed to fill seats reserved for Scheduled Tribe students in Ph.D programmes between 2015 and 2019; Reply: Not applicable to IIT Tirupati.
		b) if so, the details thereof quota-wise seats reserved/filled up/kept vacant, course-wise and IIT-wise and department-wise also and reasons therefor: Reply: The details pertaining to IIT Tirupati are attached in the excel sheet (Annexure 2).
		c) corrective steps being taken in this regard? Reply: The cut offs are relaxed by 10% for SC and ST candidates at the time of admission. Further, the total number of Ph.D. admissions for every semester is a combined cumulative number calculated on the basis of the total number of scholars guided by each faculty member at the time of admission notification. Hence, the vacancies

		from previous admission cycles are automatically advertised along with the new vacancies in every current admission cycle and the said relaxations in the cut offs are allowed.
8	RSUQ2384	(a) the total number of students who have died by suicide during their study at the national institutes including IIT, IIM, AIIMS, NIT, NID, National Law School before completing the courses in the last 5 years in the chronological order of year of exit wise (I Semester, II Semester, III Semester. Etc.)? Reply: Enclosed in Annexure 3
9	RSUQ 1221	a) year-wise details of faculty for last 3 years (2017-18- 2018-19 and 2019-20)　including current year (2020-21) in respect　of your institute Reply : Enclosed in Annexure 4
10	RSUQ 1494	a) whether Government has started issuing graduation/degree certificates using block chain technology; Reply:　　No.
		b) if so, the details thereof; Reply:　　At IIT Tirupati degree certificates are issued to the students which contain security features like QR code, waterproof, tamper-proof etc.
		c) whether Government is of the view that these technologies can address the fake certificate issue that hamper the quality of the education; Reply:　Yes, certainly
		b) if so, the details thereof? Reply:　　Block Chain technology is not only a single technique, it is a combination of many techniques such as cryptography, mathematics and algorithms. The security themes in the BCT can address the issue of the fake certificate since it contains themes like Authentication, Ownership, Confidentiality, Authorization and Privacy. Currently, MEITY with NSDL has started DIGILOCKER where the degree certificates are stored in the database for verification purposes of the employer during the time of employment. The additional features offered by using the BCT will be useful.

11	RSSQ 41	a) information in respect of your institute as per the attached Proformae may kindly be sent to this Ministry Reply : Enclosed in Annexure 5

12	RSUQ 354 &
	RSUQ 612
		a) a comprehensive list of central educational institutions located in Tirupati city or its vicinity in Chittoor and Nellore districts;
		
		Reply: Indian Institute of Technology, Tirupati
		            IISER Tirupati
		            National Sanskrit University, Tirupati

13	RSUQ 354 & RSUQ 612	b) The details for each institute like the courses offered by them, annual student intake, teacher, non-faculty strength etc.; Reply: Details of IIT Tirupati are as follows I. Courses offered by IIT Tirupati (see table below)

Indian Institute of Technology Tirupati
VIII. Courses offered by the Institute as on date

	Programme		Department
UG	B.Tech		Chemical Enginering
			Civil Engineering
			Computer Science and Engineering
			Electrical Engineering
			Mechanical Engineering
PG	M.Sc		Mathematics & Statistics
			Physics
			Chemistry
	M.Tech		Civil Engineering: 1.Environmental and Water Resources Engineering

				2. Structural Engineering
				3.Transportation and Infrastructure Engineering
				4.Geotechnical Engineering
				Computer Science and Engineering
				Electrical Enginering: Signal Processing and Communication
				Mechanical Engineering: Deisgn and Manufacturing
			MS	Chemical Engineering
				Civil & Environmental Engineering
				Computer Science and Engineering
				Electrical Engineering
				Mechanical Engineering
		Ph.D.	Ph.D.	Chemical Engineering
				Chemistry
				Civil & Environmental Engineering
				Computer Science and Engineering
				Electrical Engineering
				Humanities & Social Sciences
				Mathematics & Statistics
				Mechanical Engineering
				Physics

II.   Annual Student Intake for Academic Year 2020 - 21

VI. Student intake (UG, PG and Ph.D) Academic Year 2020-21										
	UG		PG (MS)		Ph.D.		PG (M.Sc)		PG (M.Tech.)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
General	78	18	6	1	27	9	19	1	27	1

SC	28	8	0	0	0	1	7	0	11	0
ST	13	5	0	0	0	0	3	0	5	0
OBC	51	13	2	3	14	6	11	1	17	1
EWS	18	5	1	0	2	0	3	0	7	0
Total	188	49	9	4	43	16	43	2	67	2

    III.   Faculty strength: 90 as on 31-01-2021

    IV.   Staff strength: 77 as on 31-01-2021.

c) The number of students have graduated from IIT, IISER so far;
Reply: Graduated students from IIT Tirupati

Year	B.Tech	MS (Research)	M.Tech
2019	103	1	-
2020	104	4	47

d) The total sanctioned budget for the full-fledged development (covering all phases) of IIT ,IISER
Reply: The total sanctioned budget for the full-fledged development (covering all phases) of IIT Tirupati is 3125.49 Crores.

c) the total budget released so far; and

Reply: Total budget released so far for IIT Tirupati :

                  Rs In Crores

GRANTS RECEIVED FROM MHRD							
HEADS	15-16	16-17	17-18	18-19	19-20	20-21	Total
MHRD GRANTS	₹ 18.00	₹ 28.99	₹ 69.75	₹ 74.15	₹ 56.18	₹ 66.40	₹ 313.47

HEFA(Repayments)				₹ 119.86	₹ 40.93	₹ 78.25	₹ 239.04
TOTAL	₹ 18.00	₹ 28.99	₹ 69.75	₹ 194.01	₹ 97.11	₹ 144.65	₹ 552.51

d) the plan for the release of balance funds?
Reply: As per the Detailed Project Report amount balance receivable upto October 31, 2022 is Rs. 521.89 Crores

14	RSUQ14069	(a) the funds allocated (Revised Estimates) versus funds utilised (Actual Expenditure) for SC and ST Development and welfare of each IIT from FY 2015-16 onwards; (b) the break-up of the fund allocation (Revised Estimates) versus funds utilized (Actual Expenditure) for SC and ST development and welfare of each IIT and the subheads under which it was sanctioned, released, or utilised in financial year from FY 2015 onwards; (c) whether the expenditure for the scholarship of IIT students belonging to SC and ST category is included in this? Reply: Please find the data in Annexure 6
15	RSUQ1433	(a) teaching staff that has been recruited in Higher Educational Institutes (HEIs) and Central Universities (CUs) across the country through online selection committees; (b) the number of non-teaching staff that have been recruited in HEIs and CUs across the country through online selection committees, institution-wise details; and (c) the protocol developed to curb unfair practices by candidates and to ensure fair selection by the Ministry and/or respective HEIs, if so, the details thereof? Reply: Please find the data in Annexure 7

16	RSSQ199	students benefited by tuition fee waiver in the Under Graduate programme of IITs Reply: Please find the data in Annexure 8
17	RSSQ268	Disaster Management Courses in Schools and Colleges Reply: With the respect to the above, I am to state that we are presently not offering any course on Disaster Management in IIT Tirupati and there are no plans to introduce such course at present. Therefore the information from IIT Tirupati may be treated as NIL.
18	RSQU1698	The number of students discontinued from various programmes along with the semester in which they have discontinued is mentioned below
19	RSQU2701	(a) whether large number of teaching posts are vacant in various IITs and NITs: Reply:. As far IIT Tirupati is concerned, only 7 posts are vacant out of 93 posts sanctioned, for which recruitment process is under progress.

Table for item 18:

S.No	Programme	Semesters								
		I	II	III	IV	V	VI	VII	VIII	Total
1	B.Tech	0	3	2	2	3	2	3	0	15
2	M.Sc	0	0	0	0	0	0	0	0	0
3	M.Tech	4	1	1	0	0	0	1	0	7
4	MS	1	1	1	1	0	0	0	0	4
5	Ph.D	3	2	0	0	0	0	0	0	5
	Total	8	7	4	3	3	2	4	0	31

		(b) if so, the details of such vacant posts of each Central University and respective subjects in which the posts are vacant: Reply: Electrical Engineering: 3, Mathematics: 1, Chemical Engineering: 3.
		(c) Whether Government has taken any steps to fill the vacancies: Reply: Action has already been taken to fill up these 7 posts and these posts will be filled by July 2020.
		(d) if so, the details there of; and Reply: The status is as follows: i. Offer to be issued: 3 posts in Electrical Engineering. ii. Interviews scheduled: 1 post in Mathematics. iii. Applications are under shortlisting process: 3 posts in Chemical Engineering.
		(e) if not, the reasons therefor? e. Not applicable.
20	RSUQ1681	(a) total number of students admitted in Ph.D programmes of each IIT along with their SC/ST/OBC composition, from 2015 onwards, department-wise; Answer: As per statement in Annexure 9.
		(b) number of instances of non-implementation of reservation in Ph.D that Ministry has recorded in any department of IITs from 2015 onwards; Answer: NIL.
21	RUSQ1681	(c) number of complaints received by the Ministry from 2015 onwards alleging violation of reservation in Ph.D at IITs, the details thereof with current status; and Answer: NIL.
		(d) initiatives under Government for SC/ST/OBC categories to increase the number of Ph.D applicants to IITs and to train them for securing selection in Ph.D programmes at IITs. Answer: Not applicable.

22	S3328	Data regarding SC, ST and OBC students in IITs Reply: Please find the data in Annexure 10

23	U2588	(a) No of PHD students completed Ph.D and submitted research proposals abroad for last 5 years Reply: IIT Tirupati started functioning from 2015 and first batch of Ph.D students were admitted in 2018. No student has completed Ph.D so far. Currently 102 Research Scholars are enrolled for Ph.D
		(b) Whether such students have been provided financial assistance Reply: All Ph.D students are under the Half Time Research Assistant (HTRA) scheme. They receive Rs. 31000 per month for the first 2 years and Rs. 35000 per month for the next 3 years.

24	RUSQ1681	(a) Total number of students admitted in Ph.D programmes of each IIT along with their SC/ST/OBC composition, from 2015 onwards, department-wise;

Ans: PhD Programmes have been started from January 2018 Semester onwards. The number of scholars admitted in each department as on date is shown in the table below:

S. No	Department	UR	OBC	EWS	SC	ST	Total
1	Chemistry	6	0	0	0	0	6
2	Civil Engineering	13	7	0	0	0	20
3	Computer Science & Engineering	3	3	1	1	0	8
4	Electrical Engineering	11	4	1	0	0	16
5	Humanities & Social Sciences	7	5	1	1	0	14
6	Mathematics	6	4	0	1	0	11
7	Mechanical Engineering	10	7	1	2	0	20

8	Physics	5	1	0	1	0	7
	Total	61	31	4	6	0	102

(b)   Number of instances of non-implementation of reservation in Ph.D that Ministry has recorded in any department of IITs from 2015 onwards;
        Ans: NIL

(c) Number of complaints received by the Ministry from 2015 onwards alleging violation of reservation in Ph.D at IITs, the details thereof with current status; and
        Ans: NIL

(d) Initiatives under Government for SC/ST/OBC categories to increase the number of Ph.D applicants to IITs and to train them for securing selection in Ph.D programmes at IITs.

Ans: For PG Programmes (M.S, M.Tech & M.Sc) in IIT Tirupati, sufficient exposure during their study is given in research interms of research projects, term papers, seminars, publication of papers, presentation of papers in conferences/seminars with institute funding to create interest for joining PhD Programmes.

25	RSQ3396	(a) the details of the number of transgender students, teaching and non-teaching staff in Central Universities across the country, University-wise; Reply: NIL- There are no transgenders among the students, teaching and non-teaching staff in IIT Tirupati. (b) Whether the Ministry proposes to take any step with regard to providing reservation for transgender persons in admission to educational institutions, as per the Supreme Court directives in National Legal Services Authority v. Union of India (2014); (c) if so, what are the details thereof and if not, the reasons therefor; and (d) the details of any other measures taken by the Ministry to ensure equity and access to educational institutions for transgender students in the past three years and current year? Reply: To be answered by the Ministry

26	S2611, U1493	a) Whether it is a fact that there has been an inordinate delay in completion of permanent campus for educational institutions functioning from the temporary campus in the state of Andhra Pradesh; Answer: No. Permanent campus is in operational since August 2018. Nearly about 800 students are staying in hostels, classes have been started, LABs are functioning and also research activities started from the Permanent campus. At present all classes are being held from the permanent campus. Further, Central Works Board of CPWD cleared to award the contract to the tune of Rs. 600 crores for the construction of Academic buildings, Faculty/staff quarters and Student hostels etc. Duration for completion of these works: 26 months.
		b) if so, the reasons therefor; Answer: Not applicable.
		c) whether it is also a fact that construction work of educational institutions is yet to start; Answer: No.
		d) if so, the reasons there for; and Answer: Not applicable.
		e) the steps taken / being taken by the Central Government in this regard? Answer: Not applicable.
27	RSUQ553	a) the proportion of reservation to be followed by the Central Institutes as per the Central Educational Institutions (CEIs) (Reservation in Admission) Act, 2006, and by when is the envisaged reservation proportion needed to be attained as per this Act; Reservation in admission is fully implemented as per the Central Educational Institutions (CEIs) (Reservation In Admission) Act 2006.

b) the proportion of students in the IITs, NITs, Central Universities of the country from 2015 onwards for each institute;

The proportion of B. Tech Students since 2015 is given below:

Year	SC	ST	OBC	UR	Total
2015-16	16	09	29	49	103
2016-17	14	09	33	56	112
2017-18	16	09	31	54	111
2018-19	26	11	48	81	166
2019-20	29	17	53	92	191

c) details of actions taken by the Ministry against institutions violating this proposed reservation during admissions; and

No violation in reservations in admissions

d) by when the targeted reservation is expected to be attained by the Central Institutes?

Already met the targeted reservation.

| 28 | RSQ245 | (a) the number of patents that have been registered by IITs during the past three years: (information may be given for the years, 2017, 2018 and 2019)

Number of patents files by IIT Tirupati faculty : 03 in the year 2019
1. Design and Methods of Fabrication, Assembly and Use of a Novel Composite for Filtration, Separation, Harikrishnan R, Application no. 201941014223 (filed through IIT Tirupati), Intellectual Property, India, April 2019.

2. Methods of Integration, Fabrication and use of Filtration and Separation Module, Harikrishnan R, Application no. 201941025277 (filed through IIT Tirupati), Intellectual Property, India, June 2019.

3. Combined Mettalic Yielding Device, Dr. Dipti Ranjan Sahoo(IIT Delhi), Dr. P.C Ashwin Kumar (IIT oorkee), Dr. Oinam Romanbabu Meetei (IIT Tirupati), Mr. Satpal Singh Taraithia (CPWD), December 2019. |

		(b)) the number of those patents that have become commercial products; and Reply: Nil So far
		(c)) the reasons for very low rate of conversion of patents to commercial production? Reply: IIT Tirupati is a new IIT started functioning in the year 2015. The regular faculty recruitment started in 2017. It has been made significant progress in R&D activities in the last two years. Patents take significant time process for approval.

Lok Sabha Questions and Replies

Sr. No.	Question No.	Question
1.	LSUQ 3390	a) whether students from the Scheduled Caste(SC) and Scheduled Tribe (ST) communities have significantly poor representation and acceptance rate in Ph.D programmers at the Indian institute of Technology(IITs) in the country? Reply: The representation of SC/ST communities is relatively less.
		b) if so, the details thereof during the last five years and current year, course and category-wise and the reasons therefore along with corrective steps being taken in future? Reply: The details in the prescribed pro forma are furnished as attachment ([Annexure 11](#))
2.	LSUQ 12326/ U4075 (4195)	a) whether the Government has asked the IITs to develop Institute Development Plan envisioned in the NEP 2020 Reply: Ministry of Education may kindly reply
		b) if so, the details thereof Reply: Ministry of Education may kindly reply
		c) whether the mobility of faculty members and industry experts between technical institute and industry will promote collaborations between technical institute and industry will promote collaborations between industry and academia and if so, the details thereof; Reply: Yes. We are taking steps to enhance the interaction with the industry. We are proposing to take experts from the industry as professors of practice.
		d) whether the Government proposes to constitute a task force to review use of technology at all IITs and also to accelerate deployment of digital tools in the country and if so, the details thereof; and Reply: The Ministry constituted a committee on "Recruitment of Faculties in IITs (Industry interaction and mobility of Faculty)" vide F.No. 24-8/2020-TS-1(Sectt.) dt. 3.12.2020 and they submitted a report to the Ministry

		e) the details of the contribution of the academics during the challenging times of COVID-19 and for their contribution in combating the COVID-19 by new scientific research? Reply: A note on the Research Activities taken up by the IIT Tirupati for combatting Covid-19 epidemic is enclosed herewith (Annexure 12):
3.	LSUQ 3210	a) whether the Government proposes to inculcate Artificial Intelligence (AI) for better educational transformation at secondary and higher secondary level; Reply: Ministry of Education may kindly reply
		b) if so, the details thereof; Reply: Ministry of Education may kindly reply
		c) the manner in which AI is likely to affect the overall capabilities of the education sector; and Reply: There are two ways in which AI can influence the education sector - (a) inclusion of AI in the curriculum to produce quality AI enabled manpower and (b) automation of activities in the education sector itself. AI is adopted in the curriculum of higher education institutions to train manpower with sufficient skills for problem formulation, identification and application of right tools, AI core technology development and management. At IIT Tirupati as well, we have courses related to data science and systems and are actively working to propose a new M. Tech program in Data Science.

At the 2018 UNESCO MGIEP's TECH 2018 conference as well, there was emphasis on adoption of AI in automation of processes in the education sector such as personalization at scale. In this model, the idea is to use artificial intelligence methodologies to help develop a learning system that gradually takes a beginner level student to higher levels.

Online education technologies involve knowledge developers, knowledge consumers and platforms that facilitate dissemination of knowledge. The whole system forms ecosystem and spins microeconomy cycles for stakeholders including teachers, students, evaluators and support systems.

Personalized learning through AI which involves dynamic content generation specific to the needs of the student and detecting and fixing voids in the learning process through adaptive tuning. AI also helps to automate various routine administrative tasks which will help the instructor to spend more time with teaching. AI also helps to widen the horizon of quality classroom teaching to a broader audience. One can indeed think of developing AI chatbots for automating the knowledge dissemination through a stream of messages.

A typical student today undergoes through numerous sources of knowledge as well as distractions. In this complex setting the psychological state and stress levels a student experiences may not be observed even by the close friends and relatives. There is also an upcoming trend and widespread use of online counselling services in which a student opens up. The platforms sometimes are able to identify and report for action a case of dangerous stress levels and

		sometimes they fail to offer the right help at the right time. In this context as well, of assessment of psychological health of a student, AI can play a crucial role. Such a system can work hand-in-hand with existing online platforms and human-in-loop mechanisms for safeguarding the precious life of a student.
		d) the steps taken by the Government to impart awareness of Artificial Intelligence and its application in higher educational institutions like IITs in the country? Reply: Ministry of Education may kindly reply
4.	LSUQ 6997 (2208)	a) whether the Government aware of a recent report in the media that students from SC/ST communities faced a lower acceptance rate into PhD programmes at the Indian Institute of Technology (IITs); Reply: Ministry of Education may kindly reply
		(b) if so, the Government response to the same including reasons for such an occurrence Reply: Ministry of Education may kindly reply At the Institute's level relaxation of 10% is given in the minimum eligibility criteria while shortlisting the applications.
		(c) the year wise data of the number of applicants from General, SC, ST, OBC categories to PhD programmes at each of the IITs and the number of applicants accepted, during the last five years; and Reply: Enclosed as Annexure 13
		(d) the number of vacant reserved PhD seats for each category at the IITs, during the last five years?

a		Reply: Unlike other PG and UG courses, seat matrix is not maintained separately for research programmes. However, a relaxation of 10% is given in the minimum eligibility criteria while shortlisting the applications
5.	LSUQ 3153	(a) the total number of students admitted in Ph.D Programmes of each Indian Institute of Technology (IIT) along with their SC/ST/OBC/EWS composition during 2020;and (b) provide the department-wise distribution also fir the category-wise Ph.D admission data of each IIT? Reply: Enclosed as Annexure 14
6.	LSUQ 13025	(a) the details of innovative researches conducted by IIT's of the country during the last three years; (b) whether the research findings are generally used for the up-liftment of the common man and especially in the agriculture field; (c) if so, the details thereof; (d) whether any research conducted for preservation of the virginity of soil and to hike the level of ground water; and (e) if so, the details thereof? Reply: Enclosed as Annexure 15
7.	LSUQ 1152	a) whether the student suicides have increased during lockdown, due to lack of access to digital means Reply: No
		b) the number of student suicides in the SC, ST, OBC and EWS categories Reply: Nil
		c) the number of suicides in the age of 18-30 years after the imposition of lockdown, and the reasons thereof, and

		Reply: One. The student had been at his residence with his parents for two months before the incident. He appears to have been suffering from depression.
		d) the number of suicides in the students who were to appear for NEET and JEE exams Reply: Not applicable
8.	LSUQ 4716	(a) whether IIT, Delhi, Mumbai and others have made a provision for awarding the dual degree of M. Tech or M.B.A along with B.Tech in 5 years period in place of 6 years as in the past; Reply: Yes.
		b) If so, the details thereof; Reply: IIT Tirupati has made provision for the 4-year B.Tech. students to have an option to convert to 5-year Dual Degree (B. Tech with M.Tech.) at the end the 6th Semester, provided a student meets the following criteria: i) The student should have a minimum of 8.0 CGPA (7.5 for ST/SC) at the end of 6th Semester. ii) The student should not have any backlogs.
		c) whether the Government will direct IIT Council to commence such dual degree courses in all of its 25 IIT institutes on the line of IIT, Delhi, etc.; and Reply: Ministry of Education may kindly reply
		d) If so, the details thereof?

		Reply: Ministry of Education may kindly reply.
9.	LSUQ 2790	1. The details of pending Court cases, if any, among IITs and the mechanism available for avoiding such court cases. 2. The alternative dispute (ADR) for disposal of such cases. 3. The number of cases in which the action was taken under and Section 80 CPC during the notice period. Reply: We have no court cases pending with any of the IITs and therefore, the information may be treated as NIL.
10.	LSQ 105	a) whether a high dropout rate is being reported in Indian Institute of Technology (IIT), Indian Institute of Management (IIM) and other higher education level courses b) if so, the details thereof during the last five years and the current year; and c) the corrective steps being taken by the Government in this regard? Reply: Enclosed as Annexure 16
11.	LSUQ 118	a) whether the Government has brought out any notification to use block chain technology to issue graduation certificates by universities Reply: Ministry of Education may kindly reply
		b) if so, the details thereof Reply: Not applicable
		c) whether the Government has made any pilot projects for institutes like IIT's etc.; and Reply: Ministry of Education may kindly reply

		We have not received any notification with respect to block chain technology to issue graduation certificates.
		d) if so, the status of the pilot project and the details thereof? Reply: Not applicable