

GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT AND ENTREPRENEURSHIP
LOK SABHA
UNSTARRED QUESTION NO.1227
ANSWERED ON 27.07.2026

SKILLING FOR SPACE AND GEOSPATIAL SECTORS

1227. SHRI G M HARISH BALAYOGI:

Will the Minister of SKILL DEVELOPMENT AND ENTREPRENEURSHIP be pleased to state:

- (a) the details of the skill development/capacity-building programmes implemented in space and geospatial sectors, State/UT-wise;
- (b) the details of the persons trained in remote sensing, GIS, satellite data processing and geospatial applications during the last three years, programme-wise, State/UT-wise, especially in Andhra Pradesh;
- (c) the details of number of training centres, Higher Education Institutions (HEIs) and other institutions engaged in such programmes, State/UT, district-wise including Andhra Pradesh, particularly Konaseema district;
- (d) whether the Government has assessed the demand for skilled manpower in the space and geospatial sectors and identified gaps in availability of trained personnel outside established technology hubs, if so, details thereof;
- (e) the details of partnerships with private space entities/start-ups/academic institutions for training, internships, apprenticeships and employment in said sectors;
- (f) whether any targeted programmes are proposed by the Government to extend such training to rural youth, particularly in Andhra Pradesh and if so, the details thereof; and
- (g) the steps taken/proposed to be taken by the Government to link such skill development programmes with employment and entrepreneurship opportunities in the space and geospatial sectors?

ANSWER

THE MINISTER OF STATE (INDEPENDENT CHARGE) IN THE MINISTRY OF SKILL DEVELOPMENT AND ENTREPRENEURSHIP

(SHRI JAYANT CHAUDHARY)

(a) to (c): Under the Government of India's Skill India Mission (SIM), the Ministry of Skill Development and Entrepreneurship (MSDE) delivers skill, re-skill and up-skill training through an extensive network of skill development centres under various schemes to all the sections of the society across the country including the state of Andhra Pradesh. The SIM aims at enabling youth of India to get future ready, equipped with industry relevant skills.

The Government is actively promoting skill development in the space and geospatial emerging technology sectors through flagship schemes of the Ministry of Skill Development and Entrepreneurship (MSDE), namely the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and the National Apprenticeship Promotion Scheme (NAPS), which impart short-term skilling, up-skilling, re-skilling through Recognition of Prior Learning (RPL), and structured on-the-job apprenticeship training in areas such as GIS, spatial data management, drone technology, software development, telecommunications, and electronics. Furthermore, to strengthen the

capacity of Non-Government Entities (NGEs) and academia, IN-SPACe under the Department of Space has introduced 11 short-term skill development courses in space technology, under which over 1,000 candidates have been successfully trained across the country.

The State/UT-wise number of candidates trained and apprentices engaged in space and geospatial related sectors during the last three years as well as the number of training centres/establishments under PMKVY and NAPS are provided at **Annexure-I** and **Annexure-II** respectively. The details of HEIs conducting various space technology courses across the country are given at **Annexure-III**.

(d) to (g): District Skill Committees (DSCs), established across all States/UTs including Andhra Pradesh are mandated with formulating District Skill Development Plans (DSDPs) to support decentralized, grassroots-level skill planning by identifying local employment opportunities, skilling demand, and available training infrastructure. Government skill programmes are then designed to bridge these identified skill gaps across sectors. The Sector Skill Councils (SSCs), led by industry experts, regularly conduct skill gap studies to assess sector-wise skill needs and set competency standards, which guide government interventions to align the workforce with industry requirements. Additionally, the SANKALP (Skill Acquisition and Knowledge Awareness for Livelihood Promotion)-supported National Skill Gap Study by National Council of Applied Economic Research (NCAER) provides a standardized, data-driven framework to assess skill gaps across seven high-growth sectors. It helps MSDE align skilling initiatives with industry demand and future workforce needs. Also, IN-SPACe has carried out an assessment of the skilling requirements in areas like space technology, launch vehicle, rockets, satellites etc. in consultation with the industry and has undertaken the development of relevant course curricula on the basis of the identified needs.

To expand outreach and strengthen the linkage between skilling and employment, the Government has been organizing Pradhan Mantri National Apprenticeship Melas (PMNAMs) since June 2022, along with awareness generation, employer outreach, and candidate mobilization activities. Through collaboration with employers, industry bodies, educational institutions, and Sector Skill Councils, the National Apprenticeship Promotion Scheme (NAPS) facilitates the acquisition of industry-relevant skills and enhances employment and entrepreneurship opportunities for youth, including those from rural areas. Further, the faculties for short-term skill developments in IN-SPACe are from ISRO, IN-SPACe, Ex-ISRO officers, private space entities/start-ups/academic institutions for delivering the lecture and for covering practical aspects during the course.

In order to align skill development programs with the industrial requirements in the emerging sectors including the space and geospatial sectors, and to facilitate partnerships with private entities/academic institutions, to improve the employability of the skilled manpower and entrepreneurship opportunities, the following specific steps have been taken by MSDE across the country including Andhra Pradesh:

- i. National Council for Vocational Education and Training (NCVET) has been set up as an overarching regulator establishing regulations and standards to ensure quality in the Technical and Vocational Education and Training (TVET) space.
- ii. The Awarding Bodies recognised by NCVET are expected to develop the qualifications as per the industry demand and map them with the identified occupations as per the National Classification of Occupations, 2015 and obtain industry validations.
- iii. NCVET has approved 10,209 qualifications as per the industry requirements, out of which 2,975 qualifications are valid and active, and 7,234 qualifications are archived.
- iv. 36 Sector Skill Councils (SSCs), led by industry leaders in the respective sectors, have been set up which identify the skill development needs of respective sectors as well as to determine skill competency standards.

- v. Directorate General of Training (DGT) under the aegis of MSDE is implementing Flexi MoU Scheme and Dual System of Training (DST) which are meant to provide training to ITI students in industrial environment as per their requirements.
- vi. Under PMKVY, the new age/future skills job-roles have been specially aligned with Industry 4.0 requirements in areas like AI/ML, Robotics, Mechatronics, Drone Technology, etc. for upcoming market demand and industry requirements.
- vii. DGT has introduced new age /future skills courses under CTS to provide training in emerging areas such as 5G Network Technician, Artificial Intelligence Programming assistant, Cyber Security Assistant, Drone Technician etc.
- viii. DGT has signed MoU with IT Tech companies like IBM, CISCO, Microsoft, AWS etc. to ensure industry linkages for the institutes at the state and regional levels. These partnerships facilitate the provision of technical and professional skills training in modern technologies.
- ix. Indian Institute of Skills (IIS) established at Ahmedabad and Mumbai, in Public Private Partnership (PPP) Mode, provide training to create a pool of industry-ready workforce for Industry, equipped with cutting-edge technology and hands-on training.
- x. Kaushal Melas and Pradhan Mantri National Apprenticeship Melas (PMNAMs) are organised to facilitate the placements and apprenticeship opportunities to the certified candidates.
- xi. IN-SPACE has conducted two editions of IN-SPACE CANSAT India Student competition and one edition of IN-SPACE model rocketry student India competition, which resulted in inculcation of space technology interest among the college students and created ample employment opportunities.
- xii. IN-SPACE is also providing internship and Immersion opportunities to college students to empower them with relevant skill for the space sector.

ANNEXURE REFERRED TO IN REPLY TO PART (a) to (c) OF LOK SABHA UNSTARRED QUESTION NUMBER 1227 ANSWERED ON 27.07.2026.

State/UT-wise number of candidates trained and apprentices engaged in space and geospatial related sectors during the last three years under PMKVY and NAPS schemes of MSDE

S.No	State/UT Name	FY 2023-24		FY 2024-25		FY 2025-26	
		PMKVY	NAPS	PMKVY	NAPS	PMKVY	NAPS
		Trained/ Oriented	Apprentices engaged	Trained/ Oriented	Apprentices engaged	Trained/ Oriented	Apprentices engaged
1.	Andaman And Nicobar Islands	-	12	-	38	-	34
2.	Andhra Pradesh	2,414	5,163	4,239	5,336	247	5,074
3.	Arunachal Pradesh	120	11	-	12	-	30
4.	Assam	31	2,782	481	1,344	74	2,320
5.	Bihar	169	939	3,380	1,000	50	2,496
6.	Chandigarh	-	689	-	982	-	1,005
7.	Chhattisgarh	30	2,161	90	1,864	-	2,109
8.	Delhi	13	2,521	160	3,551	-	4,288
9.	Goa	-	3,695	-	4,554	-	4,435
10.	Gujarat	245	23,189	4,445	22,211	51	26,542
11.	Haryana	57	18,058	2,086	19,047	224	24,799
12.	Himachal Pradesh	71	1,803	190	1,645	156	2,122
13.	Jammu And Kashmir	79	166	3,815	118	617	230
14.	Jharkhand	228	2,825	319	2,415	81	3,098
15.	Karnataka	80	25,112	14,813	34,033	2,734	37,254
16.	Kerala	60	4,481	451	6,080	130	5,292
17.	Ladakh	-	23	-	8	-	6
18.	Lakshadweep	-	4	-	7	-	11
19.	Madhya Pradesh	257	7,882	4,805	7,290	1,128	8,768
20.	Maharashtra	542	81,371	2,768	87,060	236	91,640
21.	Manipur	-	1	-	4	60	22
22.	Meghalaya	-	59	139	89	-	52
23.	Mizoram	28	3	177	0	-	0
24.	Nagaland	29	0	111	2	-	6
25.	Odisha	273	3,995	1,389	2,870	23	3,141
26.	Puducherry	-	924	-	994	124	1,510
27.	Punjab	79	4,001	2,177	4,050	293	6,132
28.	Rajasthan	546	4,486	5,146	5,434	348	6,924
29.	Sikkim	-	52	-	97	-	121
30.	Tamil Nadu	1,267	22,352	6,579	22,549	655	27,404
31.	Telangana	70	15,509	2,543	13,494	975	13,912
32.	Dadra & Nagar Haveli and Daman & Diu	-	852	237	1,494	-	1,155
33.	Tripura	-	70	19	57	209	70
34.	Uttar Pradesh	583	39,276	10,305	40,666	924	46,327
35.	Uttarakhand	-	7,618	1,337	7,331	45	8,831
36.	West Bengal	61	7,638	208	7,981	276	12,072

ANNEXURE REFERRED TO IN REPLY TO PART (a) to (c) OF LOK SABHA UNSTARRED QUESTION NUMBER 1227 ANSWERED ON 27.07.2026.

State/UT-wise number of training centres/establishments under PMKVY and NAPS schemes of MSDE (as on 30.06.2026)

S.No.	State/UT Name	PMKVY (Training Centres)	NAPS (Establishments)
1.	Andaman And Nicobar Islands	11	8
2.	Andhra Pradesh	527\$	241*
3.	Arunachal Pradesh	82	7
4.	Assam	864	93
5.	Bihar	548	236
6.	Chandigarh	15	26
7.	Chhattisgarh	183	77
8.	Delhi	148	165
9.	Goa	6	159
10.	Gujarat	276	2,520
11.	Haryana	536	1,871
12.	Himachal Pradesh	183	181
13.	Jammu And Kashmir	554	38
14.	Jharkhand	208	139
15.	Karnataka	436	889
16.	Kerala	146	464
17.	Ladakh	11	2
18.	Lakshadweep	1	1
19.	Madhya Pradesh	1,417	364
20.	Maharashtra	577	2,666
21.	Manipur	164	4
22.	Meghalaya	108	9
23.	Mizoram	109	0
24.	Nagaland	96	4
25.	Odisha	242	162
26.	Puducherry	29	88
27.	Punjab	619	217
28.	Rajasthan	1,474	276
29.	Sikkim	38	18
30.	Tamil Nadu	530	668
31.	Telangana	173	381
32.	The Dadra & Nagar Haveli and Daman & Diu	10	61
33.	Tripura	170	7
34.	Uttar Pradesh	2,664	1,972
35.	Uttarakhand	198	237
36.	West Bengal	280	340

* Including 5 in Konaseema District

\$ Including 6 in Konaseema District

ANNEXURE REFERRED TO IN REPLY TO PART (a) to (c) OF LOK SABHA UNSTARRED QUESTION NUMBER 1227 ANSWERED ON 27.07.2026.

Details of HEIs conducting various space technology courses across the country (as on 30.06.2026)

S.No.	Institute
1	Aditya University
2	Birla Institute of Technology and Science Pilani
3	Karunya Institute of Technology and Sciences
4	Indian Institute of Space Science and Technology
5	Amrita Vishwa Vidyapeetham
6	Birla Institute of Technology, Mesra
7	Amity University Uttar Pradesh, Noida
8	Graphic Era Deemed to be University
9	Manipal Institute of Technology, Manipal
10	Indian Institute of Technology Indore
11	Indian Institute of Technology Madras
12	Institute of Aeronautical Engineering
13	Kalinga Institute of Industrial Technology Deemed to be University
14	Indian Institute of Technology Roorkee
15	IIT Kharagpur
16	Anurag University
17	REVA UNIVERSITY
18	Madan Mohan Malaviya University of Technology Gorakhpur
19	Indian Institute of Technology Kanpur
20	Delhi Technological University
21	Hindustan Institute of Technology and Science
22	C V Raman Global University
23	SRM Institute of Science and Technology
24	Amity University Maharashtra Mumbai
25	Banaras Hindu University
26	Thapar Institute of Engineering and Technology
27	Dr. Vishwanath Karad MIT-World Peace University, Pune, Maharashtra, Bharat
28	Vignans Foundation for Science Technology and Research
29	COEP TECHNOLOGICAL UNIVERSITY Pune
30	Sri Sai Ram Engineering College
31	NIT Raipur
32	INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI
33	CHRIST Deemed to be University
34	Gokaraju Rangaraju Institute of Engineering and Technology
35	Nitte Meenakshi Institute of Technology
36	Coimbatore Institute of Technology
37	Malla Reddy MR Deemed to be university
38	Assam Don Bosco University
39	JSS Science and Technology University Mysuru
40	Central University of Jammu
41	DSPM IIIT Naya Raipur
42	Sankalchand Patel College of Engineering/ Sankalchand Patel University
43	Adikavi Nannaya University
44	Dr APJ Abdul Kalam Technical University Lucknow
45	K J Somaiya School of Engineering
46	Indraprastha Institute of Information Technology Delhi (IIIT Delhi)
47	Ajeenkya DY Patil University, Lohegaon, Pune
48	Shah and Anchor Kutchhi Engineering College, Chembur, Mumbai
49	Indian Institute of Technology Bombay, Powai, Mumbai
50	Lovely Professional University, Phagwara, Punjab
51	MKSSS's Cummins College of Engineering for Women, Pune