GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT AND ENTREPRENEURSHIP
RAJYA SABHA
UNSTARRED QUESTION NO. 3005
ANSWERED ON 18.03.2026

CERTIFICATIONS UNDER ARTIFICIAL INTELLIGENCE, ROBOTICS AND BIOTECHNOLOGIES

3005. DR. M. DHANAPAL:

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

(a) whether Government has developed or is planning to develop targeted programmes to equip youth with practical skills in emerging fields such as Artificial Intelligence (AI), robotics and biotechnologies;

(b) if so, the details of the funding, institutional partnerships and certifications available under these programmes for students; and

(c) the timeframe Government envisages for broad roll-out of such skill enhancement initiatives in schools and higher-education institutions nationwide?

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 / institutes etc. under various schemes, viz. Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Jan Shikshan Sansthan (JSS), National Apprenticeship Promotion Scheme (NAPS) and Craftsman Training Scheme (CTS) through Industrial Training Institutes (ITIs), to all the sections of the society across the country. The SIM aims at enabling youth of India to get future ready and equipped with industry relevant skills.

To promote new age emerging skills, including artificial intelligence/machine learning, robotics, biotechnologies, etc. MSDE has undertaken the following initiatives:

(i) Under PMKVY 4.0, the dedicated job roles under the "Future Skills" category have been introduced with an aim of preparing youth for opportunities in new and emerging technologies. Government has rolled out skill enhancement initiatives in emerging fields such as Artificial Intelligence, Robotics, and Biotechnologies across schools and higher-education institutions nationwide. This enhances acceptability among employers. Additionally, industry partnerships at the implementation level help shape curriculum, support placements, and ensure the relevance of skills imparted to current market needs.
(ii) Apprenticeship training is imparted under 266 designated trades and over 750 Optional trades, including Artificial Intelligence (AI) and Robotics.
(iii) Directorate General of Training (DGT) under the aegis of MSDE has introduced 31 new-age/future skills courses under CTS in Industrial Training Institutes (ITIs) and National Skill Training Institutes (NSTIs) to provide digital training in emerging areas such as Artificial Intelligence, Mechatronics, Internet of Things, Cybersecurity, Semiconductor, etc.
(iv) With a view to adopt the best practices in the digital skill training, DGT has signed Memoranda of Understanding (MoUs) with leading IT tech companies like IBM, CISCO, Amazon Web Services (AWS), and Microsoft. These partnerships facilitate the provision of technical and professional skills training in modern technologies, including Artificial Intelligence (AI), Big Data Analytics (BDA), Blockchain, Cloud Computing, etc.

(v) Directorate General of Training (DGT) under MSDE has introduced one course 'Artificial Intelligence Programming Assistant (AIPA)' to impart AI-based skill training through Industrial Training Institutes (ITIs) and National Skill Training Institutes (NSTIs). Also, a micro-credential course "Introduction to Artificial Intelligence (AI)" of 7.5-hour has been developed for all CTS trainees in Industrial Training Institutes (ITIs), in collaboration with industry and academic experts.

(vi) MSDE has launched the Skill India Digital Hub (SIDH), a unified digital platform aimed at enhancing skill development in youths across the country by providing access to industry-relevant courses, job opportunities, and entrepreneurship support. It offers a diverse selection of AI and Machine Learning (ML) courses—ranging from introductory programs like *Fundamentals of Azure AI Speech* and *Machine Learning* to advanced modules such as *Google Cloud Generative AI* and *AI Strategy to Create Business Value in Healthcare*—designed to support learners at all proficiency levels and prepare them to thrive in the fast-changing technology landscape.

(vii) National Skill Development Corporation (NSDC) under the aegis of MSDE has partnered with a number of international organizations such as AWS, Microsoft, Intel, Redhat, Pearson VUE, Boston Consulting Group (BCG), Cisco Networking Academy for providing digital courses.

(viii) MSDE launched a national-level initiative, SOAR (Skilling for AI Readiness), aimed at embedding AI awareness and foundational skills among school students (Classes 6–12) and building AI literacy among educators. The programme seeks to bridge the digital divide by ensuring equitable access to AI education across geographies, thereby supporting the national agenda of inclusive, future-ready skilling.

(ix) Department of Biotechnology implements the 'Biotechnology Career Advancement and Re-orientation (BioCARe)' scheme with an aim of enhancing the participation of young scientists in Biotechnology and allied research areas in India.

Funds are not released directly to the districts under any schemes of MSDE. Funds under PMKVY are released to implementing agencies for meeting the training cost as per prescribed norms. Under JSS scheme, funds are released to Non-Governmental Organizations (NGOs) directly. Under NAPS, stipend support up to Rs 1500/- per month is released to apprentices through DBT and not to establishments covered. Day to day administration as well as financial control in respect of ITIs lies with the respective State Government/ UT Administration. The details of the funds released for implementation of schemes of MSDE during the last three years and current year (upto December 2025) are as follows:

Amount in Rs.(Crores)

Name of the Scheme	Funds released
PMKVY	2560.52
JSS	560.39
NAPS	1904.33

National Education Policy 2020 lays emphasis on the integration of vocational education programs with mainstream education in all educational institutions in a phased manner. The National Credit Framework (NCrF) has been developed as a comprehensive credit accumulation & transfer framework encompassing elementary, school, higher, and vocational education & training. NCrF integrates creditization of learning in various dimensions, i.e. academics, vocational skills and experiential learning, including relevant experience and proficiency/ professional levels acquired.

Under the Vocational Education component of 'Samagra Shiksha', NSQF-aligned vocational courses are offered to the students from class 9^{th} to 12^{th} in the schools covered under the scheme. At the Secondary level (Class IX and X), vocational modules are offered to the students as an additional subject. At Sr. Secondary level (Class XI and XII), vocational courses are offered as a compulsory (elective) subject.

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