

**GOVERNMENT OF INDIA
MINISTRY OF EDUCATION
DEPARTMENT OF HIGHER EDUCATION**

**LOK SABHA
UNSTARRED QUESTION NO-2458
ANSWERED ON-03/08/2026**

Strengthening Higher Education for Emerging Technologies

2458. Thiru D M Kathir Anand:

Will the Minister of **EDUCATION** be pleased to state:

- (a) the roadmap prepared by the Government to modernise higher education in view of the rapid advancement of Artificial Intelligence (AI), with emphasis on flexible learning pathways, continuous skill development, experiential education and knowledge creation through research;
- (b) the approach adopted by the Government to encourage universities and higher educational institutions to strengthen project-based learning, industry collaboration, innovation, entrepreneurship and lifelong learning alongside conventional academic programmes;
- (c) the assistance provided for redesigning curricula to equip students with future-ready competencies in emerging technologies and digital applications;
- (d) the collaboration with academic institutions, industry, research organisations and regulatory bodies for promoting responsible integration of Artificial Intelligence in higher education; and
- (e) whether any proposals are under consideration by the Government for building an education ecosystem that remains relevant to changing technologies, evolving employment patterns and national development priorities and if so, the details thereof?

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF EDUCATION
(DR. SUKANTA MAJUMDAR)**

(a) to (e): Government of India has framed the National Education Policy (NEP) 2020 with an aim for holistic development of students. NEP 2020 lays emphasis on multidisciplinary, imaginative & flexible curricular structures, integration of skills and recommends that the pedagogy must evolve to make education more experiential, inquiry-driven, discovery-oriented, and learner-centred.

In line with the vision of NEP 2020, the Government has issued key guidelines and taken several initiatives to upgrade curricula, pedagogy, and develop digital infrastructure in order to create future-ready talent pipeline.

To upgrade the higher education curricula, the All-India Council for Technical Education (AICTE) has revised its Model Curricula with inputs from industry experts by integrating Artificial Intelligence (AI), Data Science (DS), Machine Learning (ML), Cyber Security, Robotics, Quantum Computing, and other emerging technologies across technical disciplines. During the year 2025–26, more than 2100 AICTE-approved institutions offered courses in AI & other emerging area, with an approved intake of more than 2.80 lakh students.

To enhance employability of the students and achieve the objectives of NEP 2020, the National Credit Framework (NCrF) has been issued, enabling integration of skill education into academia. The NCrF has a provision for the accumulation of a maximum of 50% of the total credit required through skill-based courses. Further, the University Grants Commission has issued “Guidelines on Sustainable and Vibrant University-Industry Linkage System for Indian Universities” to promote Research & Development and develop the skill sets amongst the learners and make them industry ready. Further, AICTE’s Approval Process Handbook 2024-25 to 2026-27 has “Essential and Desirable Requirements for Technical Institutions”, which include Institute-Industry Cell, establishment of Institution’s Innovation Council and compulsory internship for final year students as essential requirements for approval.

Additionally, UGC has introduced “Guidelines for Internship/Research Internship for Under Graduate Students”, with an aim to improve employability, develop interest for research and provide exposure to emerging technologies. Further, UGC has also formulated the “UGC Guidelines for Higher Educational Institutions to Offer Apprenticeship Embedded Degree Programme (AEDP)” to embed the competencies required by the industry in the university curriculum.

The Ministry of Education implements the National Apprenticeship Training Scheme (NATS) to impart on-the-job training in collaboration with industry to enhance the employability of youth. To meet the rising demand for AI talent, the Ministry has launched the AI Apprenticeship Programme under NATS. This initiative aims to develop expertise in various areas such as Data Science, Machine Learning, Application Development, Prompt Engineering, etc for graduates, diploma holders, AEDP students. Till date, more than 75000 apprentices have benefited from the AI Apprenticeship Programme.

To leverage the potential of Information and Communication Technology, Ministry of Education is implementing the National Mission on Education through ICT (NMEICT). Under the NMEICT scheme Study Webs of Active Learning for Young Aspiring Minds (SWAYAM) platform has been launched to promote lifelong learning through free courses by premier institutions. To strengthen learners' competencies in emerging technologies, SWAYAM platform has offered over 140 AI-related courses, with more than 50 lakh enrolments in these courses so far. To further promote project-based and experiential learning, the e-Yantra Project under NMEICT integrates automation and robotics into engineering education by providing robotics-based tools and training. So far, e-Yantra has supported hands-on training for more than 70,000 learners.

Further, to strengthen industry-academia linkages and enhance learners' employability, the Ministry of Education in collaboration with eminent industry partners, has also launched the SWAYAM Plus platform. The platform offers more than 500 employability-focused courses. These courses have been curated from more than 80 industry partners across 15 sectors, including Information Technology, Artificial Intelligence, Semiconductor Manufacturing, and Advanced Manufacturing etc. More than 06 lakh learners have enrolled on SWAYAM Plus platform for their Skill augmentation.

Further, Ministry of Electronics & Information Technology has initiated “FutureSkills PRIME” programme for up-skilling of learners in emerging technologies. Courses in emerging technologies such as Artificial Intelligence, Big Data Analytics (AI/BDA) etc. The Courses are developed in the consultation with industry to align with actual employment needs. So far, more than 34 lakh candidates have registered on the portal, this includes more than 9.58 lakh candidates in AI/BDA technology.
