GOVERNMENT OF INDIA
MINISTRY OF EDUCATION
DEPARTMENT OF HIGHER EDUCATION

LOK SABHA
UNSTARRED QUESTION NO.797
ANSWERED ON- 12/12/2022

CHANGES IN SCIENTIFIC AND TECHNOLOGICAL FIELDS

797. SHRI K. NAVASKANI

Will the Minister of EDUCATION be pleased to state:

(a) whether the Government agrees with the view that massive changes in the scientific and technological fields such as artificial intelligence, data analytics and learning by machine, robotics etc. will not only wipe out unskilled jobs but also lead to increasing demand for skilled manpower involving mathematics, computer science and data science coupled with multidisciplinary abilities across physical science, social science and humanities;

(b) if so, the details thereof; and

(c) the steps taken/being taken by the Government to create an environment conducive to overall growth and also prepare the people for a gainful employment?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF EDUCATION

(DR. SUBHAS SARKAR)

(a) to (c): Yes Sir. The massive developments in the fields of Artificial Intelligence (AI), Data analytics, Machine learning and robotics will cause the increase in demands of skilled manpower in the allied sectors of mathematics, computer science and data science coupled with multidisciplinary abilities across physical science, social science and humanities. For instance, the developments in robotics do require knowledge from the Mechanical, Electrical, Electronics and Computer Engineering in consonance with the good background of Mathematical and Physical Science.

In order to tap the potential of new age technologies and upskill the students to earn gainful employment, the All India Council for Technical Education (AICTE) has revamped the existing curriculum and launched outcome based Model curriculum for Diploma, Undergraduate and Post Graduate courses in Engineering and PGDM/MBA. AICTE has also prepared Model curriculum for courses in Emerging Areas like (i) Artificial Intelligence (AI), (ii) Internet of Things (IoT), (iii) Block Chain, (iv) Robotics, (v) Quantum Computing (vi) Data Science (vii) Cyber Security (viii) 3D Printing and Design and (ix) Augmented Reality (AR)/Virtual Reality (VR) etc., and permitted in engineering institutes from academic year 2020-21.

The Ministry of Electronics & Information Technology (MeitY) in collaboration with NASSCOM has initiated a programme titled FutureSkills PRIME (Programme for Re-skilling/Up-skilling of IT Manpower for Employability) aimed at re-skilling/ up-skilling of IT professionals in 10

new/emerging technologies which include Artificial Intelligence, Robotic Process Automation, Augmented/Virtual Reality, Internet of Things, Big Data Analytics, Additive Manufacturing/ 3D Printing, Cloud Computing, Social & Mobile, Cyber Security and Blockchain. Towards this, the programme takes into account employment linkages such as a 'Career Prime' web-page on the platform and an integrated ' Career Portal' , which provides information on IT-ITes jobs, internships, apprenticeships, hackathons etc. The FutureSkills PRIME programme aims to up-skill/ re-skill of 4.12 lakh beneficiaries.

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