

GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 5406
TO BE ANSWERED ON 05.04.2023

R&D IN EMERGING TECHNOLOGY

5406. COL RAJYAVARDHAN RATHORE:

Will the Minister of ELECTRONICS AND INFORMATION TECHNOLOGY be pleased to state:

- (a) the details of the expenditure incurred by the Government on research and development of emerging technologies including AI during the last five years, year-wise;
- (b) the number of research endeavours undertaken by the private institutions/individuals in India since 2014;
- (c) the details of the Government Initiatives using AI systems and their achievements along with the plan of the Government to use AI to promote sustainable and inclusive growth of rural India;
- (d) the number of malicious web pages, phishing campaigns, and social media scams industrialised by AI, against which the Government took action in the last three years;
- (e) whether the Government is aware of rising use of deepfakes for malicious purposes including election manipulation and intend to formulate a policy to counter misinformation and privacy concerns around AI, if so, the details thereof; and
- (f) the details of awareness campaigns on the positive and negative impact of AI conducted by the Government during the last three years, especially in rural areas?

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI RAJEEV CHANDRASEKHAR)

(a): The expenditure incurred by the Ministry of Electronics and Information Technology on research and development including emerging technologies and AI during the last five years, year-wise is given below:

2017-18	2018-19	2019-20	2020-21	2021-22
Rs. 100.93 crore	Rs. 179.00 crore	Rs. 427.74 crore	Rs. 420.91 crore	Rs. 502.04 crore

(b): MeitY does not have the information related to research endeavours undertaken by the private institutions/individuals.

(c): Artificial Intelligence (AI) is considered as a kinetic enabler of digital economy and innovation ecosystem. The government has taken several policy steps for the development of infrastructure, expertise, skilling and research in artificial intelligence in the country. Following are the details:

- i. Government has published the National Strategy for Artificial Intelligence in June 2018 and proposes to develop an ecosystem for the research and adoption of Artificial Intelligence i.e. #AI for ALL.
- ii. With the vision to make India a global leader in AI space and to ensure responsible and transformational use of AI for All, MeitY has undertaken the implementation of the "National Program on Artificial Intelligence". The program aims to establish a comprehensive step for leveraging transformative technologies to foster inclusion, innovation, and adoption for social impact including rural areas.

- iii. MeitY has also established Centres of Excellence in various emerging technologies including Artificial Intelligence to explore opportunities in these specialized fields. These centres provide start-ups with premium plug-and-play co-working spaces and access to the ecosystem.
- iv. Government has launched Responsible AI for Youth 2022, on July 30, 2022. The Programme was designed to reach out to students from Government schools on pan-India basis and provide them with an opportunity to become part of the skilled workforce in an inclusive manner.
- v. MeitY along with CDAC has also initiated a Proof-of-Concept (PoC) project on AIRAWAT (AI Research, Analytics and Knowledge Dissemination Platform) for providing a common compute platform for AI research and knowledge assimilation. This AI Computing infrastructure will be used by all Technology Innovation Hubs, Research Labs, Scientific Communities, Industry, and Start-Ups institutions with National Knowledge Network.
- vi. MeitY has launched the "National AI Portal" (<https://indiaai.gov.in/>) which serves as a comprehensive repository of Artificial Intelligence (AI) initiatives in the country. The portal acts as a single point of reference for individuals, researchers, and industry professionals seeking information about AI initiatives in India, including academic research, startups, policy initiatives, and other related information.
- vii. Department of Science & Technology is implementing the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) to promote R&D, Human Resource Development (HRD), Technology Development, Entrepreneurship Development, International Collaboration etc. As part of this Mission 25 Technology Innovation Hubs (TIHs) in advanced technologies have been established in reputed institutes across the country. The TIHs at IIT Kharagpur, IIT Hyderabad and IIT BHU are working towards Artificial Intelligence and Data Science.

(d): Computer Emergency Response Team (CERT-In) has not received any incident regarding scams mobilising Artificial Intelligence (AI) technology.

(e): Yes, sir. The Government is cognizant of new and evolving technologies, including deepfake technology which alter the image or voice of a person to make it appear to be that of another person, or that create image or voice that appears to be that of a person, enabling creation of fake information.

The Information Technology Act, 2000 ("IT Act") and rules made thereunder contain several provisions for safeguarding users in the cyberspace. To ensure that Internet in India is Open, Safe and Trusted and Accountable, the Central Government, while taking into account international developments in social media regulation, in exercise of powers conferred by the IT Act, has notified the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021. ("IT Rules, 2021"). These rules cast specific obligation on intermediaries, including social media intermediaries, to observe due diligence and provide that if they fail to observe such due diligence, they shall no longer be exempt from their liability under law for third-party information or data or communication link hosted by them.

MeitY has funded a research project during 2022 titled "Design and Development of software system for detecting and flagging Deep fake Videos and Images.

(f): Government of India organized Responsible AI for Social Empowerment (RAISE) in 2020, a global meeting of minds on Artificial Intelligence to drive India's vision and roadmap for social transformation, inclusion and empowerment through responsible AI.

MeitY in collaboration with industry partners, has launched 'Responsible AI for Youth' – a national program for government schools that aims to create an AI ready workforce for the future.

MeitY in collaboration with National Association of Software and Service Companies (NASSCOM) has also initiated “Future Skilling PRIME-Programme for Re-skilling/Up-skilling of IT Manpower for Employability.

MeitY’s society National Institute of Electronics and Information Technology (NIELIT) is engaged in skill development of human resources in the area of Information Electronics and Communication Technology (IECT) through its wide array of degree/diploma programmes viz. B. Tech/M. Tech, MCA , BCA, PG Diploma in Information Security/Cloud Computing/Data Science/IOT etc, and skilled based long term/short terms certificate programmes viz. NIELIT O/A/B/C level and courses in emerging areas like AI & ML, Drone Technology, Cyber Security, Cloud Computing , Big data, Social Mobile, IOT/Industry 4.0 , RPA and 3D printing, AR/VR, Meta verse etc to equip the students with necessary knowledge and skills. Since 2019, more than 57000 no. of candidates have been trained in various programs of NIELIT in emerging technologies from basic /awareness to advance level program covering all positive and negative aspects of technologies in human life.
