

GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION. NO. 3031
TO BE ANSWERED ON: 19.03.2025

DEVELOPMENT OF INDIGENOUS AI TOOLS

†3031. SHRI MURARI LAL MEENA:

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

- (a) whether the Government is aware that sensitive data of our country can reach foreign servers with the use of ChatGPT and other Artificial Intelligence (AI) tools;
- (b) if so, the steps taken by the Government to prevent this potential data leak so far;
- (c) whether the Government is working towards developing indigenous AI tools so that sensitive data remains safe within the country;
- (d) whether the Government is planning to develop indigenous email and search engine services considering that there is also a possibility of our sensitive data reaching foreign servers through foreign services like Google and Gmail; and
- (e) if so, the timeline by which these services are likely to be made available?

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI JITIN PRASADA)

(a) to (e): The Government of India emphasizes the concept of 'AI for All', aligning with the Hon'ble Prime Minister's vision to democratize use of technology. This initiative aims to ensure that AI benefits all sectors of society, driving innovation and growth.

Government is committed to harnessing the power of Artificial Intelligence (AI) for the good of our people in sectors like healthcare, agriculture and education. At the same time, the Government is cognizant of the risks posed by AI and the need to create guardrails to ensure that AI is safe and trusted.

For Central Government and State Government projects where **National Informatics Centre (NIC) is providing e-Governance Services, AI tools have been created in-house** and have been made available through Application Programming Interface (API) services running on supercomputer facility in NIC's data centres. Hence for those projects sensitive data leakage does not take place. Further, all Government communications happen on secured server through e-mail and e-office and all data is securely stored.

The **IT Act and the IT Rules, 2021 collectively provide a framework** for removal of harmful content and ensures that users over the internet are safeguarded from its perils which includes content that is artificially generated and patently false.

MeitY has issued advisories dated 26.12.2023, 15.03.2024 and 03.09.2024 (collectively as "Advisories"), through which the intermediaries were reminded about **compliance with their due-diligence obligations** outlined under the **Rule 3(1)(b) of the IT Rules, 2021** and advised on **countering unlawful content** including malicious 'synthetic media' and 'deepfakes' for better compliance to curb deepfakes and promptly remove harmful content online. The overall objective of these advisory is to empower users with adequate information so that they make informed decisions while using synthetic media tools. These Advisories among other things advise every intermediary and platform to ensure that its computer resource in itself or through the use of AI model(s)/ LLM/ Generative AI, software(s) or

algorithm(s) does not permit any bias or discrimination or threaten the integrity of the electoral process.

The Indian Computer Emergency Response Team (CERT-In) has taken following measures to enhance the cyber security posture:

- i. CERT-In issues **alerts and advisories regarding latest cyber threats/vulnerabilities** and countermeasures to protect computers, mobile phones, networks and data on an ongoing basis.
- ii. CERT-In has published an **advisory in May 2023, on Security implications of AI language-based applications**, highlighting how AI based applications can be used by threat actors to conduct various malicious activities and the safety measures that may be followed to minimize the adversarial threats arising from AI based applications.
- iii. CERT-In has issued an **advisory in November 2023 to various Ministries outlining the measures to be taken for strengthening the cyber security** by all entities that are processing the digital personal data or information including sensitive personal data or information.
- iv. CERT-In has issued **guidelines on information security practices** for government entities in June 2023 covering domains such as data security, network security, identity and access management, application security, third-party outsourcing, hardening procedures, security monitoring, incident management and security auditing.
- v. CERT-In has issued **Guidelines for Secure Application Design, Development, and Implementation & Operations** in September 2023. CERT-In has also released the Software Bill of Materials (SBOM) guidelines for entities, particularly those in the public sector, government, essential services, organizations involved in software export and software services industry in October 2024. SBOM helps organizations know exactly what components are in their software or assets, making it easier to identify and fix vulnerabilities.
- vi. CERT-In has empaneled **200 security auditing organizations** to support and audit implementation of Information Security Best Practices.
- vii. CERT-In conducts **regular training programmes** for network and system administrators and Chief Information Security Officers of government and critical sector organizations regarding securing information technology infrastructure and mitigating cyber-attacks. A total of 12,014 officials have been trained in 23 training programs in 2024.
- viii. The **Certified Security Professional in Artificial Intelligence (CSPA) program launched** by CERT-In and SISA in September 2024. The certification is approved by the ANSI National Accreditation Board (ANAB) by meeting the ISO/IEC 17024 standard. The program aims to address the growing need for Secure and Responsible AI integration into business applications and processes. The CSPA program equips cybersecurity professionals with the skills to secure AI systems, proactively address AI-related threats, and ensure trustworthy AI deployment in business environments.
- ix. CERT-In is regularly carrying out various activities for awareness and citizen sensitization with respect to cyber-attacks and cyber frauds. CERT-In is observing the Cyber Security Awareness Month (NCSAM) during October of every year, Safer Internet Day on 1st Week Tuesday of February Month every year, Swachhta Pakhwada from 1 to 15 February of every year and Cyber JagrooktaDiwas (CJD) on 1st Wednesday of every month by organising various events and activities for citizens as well as the technical cyber community in India. CERT-In conducted several awareness activities such as Quiz, webinars, Capture the Flag event in collaboration with Government and industry partners during NCSAM 2024 with the theme “SatarkNagrik, Secure our World”.

Union Cabinet led by Hon’ble Prime Minister has approved the **IndiaAI Mission** on 7th March 2024, a strategic initiative to establish a robust and inclusive AI ecosystem that aligns with the country’s development goals. The mission is driven by a vision to position India as a global leader in artificial intelligence by focusing on seven foundational pillars.

IndiaAI on 30th January, 2025 had **launched a Call for Proposals** inviting proposals from startups, researchers, and entrepreneurs to collaborate **on building state-of-the-art foundational AI models trained on Indian datasets**. The initiative aims to establish indigenous AI models that align with global standards while addressing unique challenges and opportunities within the Indian context.

In the first month, IndiaAI Mission has received a total of **67 proposals till February 15** aimed at building India's foundation models, with contributions from both established startups and new teams of researchers & academia. **22 are focused on Large Language Models (LLMs) & Large Multimodal Models (LMMs)**, while the remaining **45 are centered on domain-specific models (SLMs)**. The majority of SLMs target key sectors such as healthcare, education, and financial services. Along with funding support, a wide range of GPUs have been requested by teams submitting these proposals.

Under IndiaAI Application Development Initiative, an Innovation Challenge was inviting participants to build AI solutions under five critical sectors/themes including healthcare, agriculture, governance, climate change and disaster management and assistive technologies for learning disabilities. A total of 900 applications have been received across the five focus areas by the deadline of 30th September. Out these, the **30 shortlisted AI solutions** under the identified sectors across three stages of maturity: Idea, Prototype, and Existing Solutions. The details of shortlisted AI solutions is given at **Annexure I**.

Further, under Safe and Trusted Pillar of the IndiaAI Mission, **Eight Responsible AI Projects** have been selected to address the need for robust guardrails to ensure the responsible development, deployment, and adoption of AI technologies. The projects cover a range of critical themes, including Machine Unlearning, Synthetic Data Generation, AI Bias Mitigation, Ethical AI Frameworks, Privacy-Enhancing Tools, Explainable AI, AI Governance Testing, and Algorithm Auditing Tools. The details of the selected projects are given at **Annexure II**.

Annexure I

The details of shortlisted AI solution under IndiaAI Application Development Initiative are as under:

Sl.No.	Name of the Solution	Solution Description	Stage	Team Name	Theme
1	Promoting regenerative agriculture practices for a	In-house developed MRV (Measurement, Reporting, and	Solution	Varaha ClimateAG Private Limited	Agriculture

Sl.No.	Name of the Solution	Solution Description	Stage	Team Name	Theme
	sustainable future using AI	Verification) technology designed to ensure the integrity and quality of generated carbon credits.			
2	Krishi Sah'AI'yak - Farming Co-pilot	AI-powered conversational co-pilot to provide personalized advisory to farmers in Indic languages	Solution	Samagra Development Associates Pvt. Ltd	Agriculture
3	Kadalcompass - We Amplify the voice of water using Hydro-AI, Underwater com, IoT with Sensor Network	5G-enabled device that transforms fishing practices using AI, IoT, and advanced communication technologies	Solution	Innogle Technologies Pvt LTD	Agriculture
4	KissanCopilot Multilingual Multimodal personalized AI Assistant for small holder farmers	Powered by Dhenu's vertical LLM for agriculture, provides personalized agricultural advisory services to smallholder farmers.	Solution	Titodi Infotech Pvt Ltd	Agriculture
5	Rapid, chemical-free soil testing solution using NIR Spectroscopy & AI/ML models	End-to-end soil testing approach leverages an offline app, AI-powered spectral device, and ML models to deliver timely, chemical-free soil analysis.	Solution	Neoperk Technologies	Agriculture
6	AI deep-tech driven quality assessment of Maize	SAAS platform to provide objective quality assessment of maize including price estimation & sales pipelining.	Solution	RootsGoods (OPC) Pvt. Ltd.	Agriculture
7	AI-Driven Live Fish Logistics and Mortality Reduction in Aquaculture	AI-driven solution that optimizes aquaculture operations	Solution	Shuvoneel Ras System Pvt. Ltd.	Agriculture

Sl.No.	Name of the Solution	Solution Description	Stage	Team Name	Theme
8	QScan	AI-powered IoT solution that captures critical data throughout the fresh produce lifecycle, providing real-time analysis of food quality and actionable insights to sellers.	Prototype	Qzense Labs Pvt Ltd	Agriculture
9	Heatwave Resilience: Integrating AI-based Advanced Forecasting for Extreme Heat Events	Integrates AI-based climate forecasting with health data to develop a targeted risk classification system for heat-health impacts	Idea	I-Hub for Robotics and Autonomous Systems Innovation Foundation	Climate
10	Multi-Hazard Susceptibility Mapping	hazard management system to predict Landslides, Debris Flows and Flash Floods	Prototype	Jarbits Pvt Ltd	Climate
11	DeepFlood: Rapid flood inundation mapping using Vision Transformers and Satellite Data	Advanced flood inundation mapping tool using SAR data and deep learning models for real-time, automated flood detection	Prototype	Indian Institute of Technology Delhi	Climate
12	Moskeet: Climate impact on mosquito-borne diseases	AI-powered platform integrates real-time climate data with mosquito tracking to predict and prevent disease outbreaks.	Prototype	Moskeet AI	Climate
13	End to End AI Cloud Platform for Radiology Diagnosis	AI cloud platform for radiology diagnosis, integrating innovative technologies such as CV, GenAI, NLP, Dicom, mobile, and cloud computing	Solution	Endimension Technology Pvt. Ltd.	Healthcare

Sl.No.	Name of the Solution	Solution Description	Stage	Team Name	Theme
14	NIDAAN (iNtegrated lung health screening & tuberculosIs Detection through Ai At National scale)	qXR, an advanced AI tool for interpreting chest X-rays (CXR), detects & localizes 30+ findings.	Solution	Qure.ai Technologies Pvt. Ltd.	Healthcare
15	Impactful AI solution, preventing preventable blindness, for socio-economic transformation.	early detection of vision threatening retinal abnormalities	Solution	Artelus	Healthcare
16	AI Powered Wearable Technology for Detection & Diagnosis of Musculoskeletal Joint Health Pain.	AI Enabled Hardware Platform for Joint Pain Diagnostics and Rehabilitation Segments of Healthcare	Solution	Startoon Labs Private Limited	Healthcare
17	VoxelBox	Neuro-informatics platform that allows to map the functional maps / connectomics of the human brain	Prototype	BrainSight Technology Pvt Ltd	Healthcare
18	Development of Ocellux: An AI-Based Solution for Enhanced Early Diabetic Eye Screening in INDIA.	Portable, affordable and highly accessible retina imaging device powered by AI for early detection of eye diseases like Diabetic Retinopathy, AMD & Glaucoma	Prototype	Anself Dynamics Pvt. Ltd.	Healthcare
19	Revolutionizing healthcare using doctor-led AI	AI-powered personal doctor available 24x7 and free of cost, designed to assist people when they are sick, monitor their health through wearables, and act as a health coach to prevent diseases.	Prototype	Jivi Health Pvt. Ltd.	Healthcare

Sl.No.	Name of the Solution	Solution Description	Stage	Team Name	Theme
20	AI/ML enabled MafPro device platform for cancer staging, localization, and margins.	MafPro handheld detector provides a radiation-free, non-invasive, safe and cost-effective solution that can reliably detect and adequately evaluate metastases in lymph nodes using AI/ML based algorithms	Prototype	SIAMAF Healthcare	Healthcare
21	Readabled (Online Dyslexia Training)	web-based application designed to help children with dyslexia improve phonetic awareness through interactive exercises.	Existing	Hermit Labs Pvt. Ltd.	Learning disabilities
22	Voice fusion AI	AI application to provide assistive support to individuals with SLDs in multiple Indian languages	Prototype	PerpetualBlock Technologies Private Limited	Learning disabilities
23	ScreenPlay - a digital game based screening tool for autism and related disorders.	Digital, game-based screening tool designed to identify children aged 3 to 6 who may be at risk for autism or related developmental conditions	Existing	Kidaura Innovations Pvt Ltd	Learning disabilities
24	Jiveesha	AI-powered diagnostic platform for early detection of SLDs	Idea	Daira Edtech Private Limited	Learning disabilities
25	Adaptive Learning and Detection for SLDs	Advanced AI techniques to detect Specific Learning Disabilities (SLDs) such as dyslexia, dysgraphia, and dyscalculia.	Prototype	Narottam Innovations Pvt. Ltd.	Learning disabilities
26	Special Educator AI	AI-driven system designed to address India's shortage of special educators and	Idea	Banyan Intelligence Private Limited	Learning disabilities

Sl.No.	Name of the Solution	Solution Description	Stage	Team Name	Theme
		support children with SLDs.			
27	ConvoZen.AI by NoBroker Technologies	AI-powered conversational platform that automates customer engagement across channels like chat, voice, email, and social media, offering fast, personalized, and multilingual support.	Solution	Nobroker Technologies Solutions Pvt. Ltd	Governance
28	AI contact center	AI-powered technologies like machine translation, NLP, ASR and TTS, and multilingual voice recognition to enhance governance by improving communication and accessibility across India's linguistic diversity	Solution	Devnagri AI Pvt. Ltd	Governance
29	Adalat AI: AI solutions for Courts	AI-powered platform provides real-time multilingual transcription, translation, live case flow management, and WhatsApp chatbots to streamline courtroom operations	Prototype	Legsys.AI Technology Foundation	Governance
30	Gov.Civis.Vote	AI-powered Digital Public Infrastructure designed to transform public consultations in India by making citizen engagement more inclusive,	Solution	Civic Innovation Foundation	Governance

Sl.No.	Name of the Solution	Solution Description	Stage	Team Name	Theme
		scalable, and comprehensive			

The details of the selected projects under “Safe & Trusted AI” Pillar are as under:

NAME OF THE THEME	SELECTED APPLICANT	TITLE OF THE PROJECT
Machine Unlearning	IIT Jodhpur	Machine Unlearning in Generative Foundation Models
Synthetic Data Generation	IIT Roorkee	Design and Development of Method for Generating Synthetic Data for Mitigating Bias in Datasets; and Framework for Mitigating Bias in Machine Learning Pipeline for Responsible AI
AI Bias Mitigation Strategy	National Institute of Technology Raipur	Development of Responsible Artificial Intelligence for Bias Mitigation in Health Care Systems
Explainable AI Framework	DIAT Pune and Mindgraph Technology Pvt. Ltd.	Enabling Explainable and Privacy Preserving AI for Security
Privacy Enhancing Strategy	IIT Delhi, IIIT Delhi, IIT Dharwad and Telecommunication Engineering Center (TEC)	Robust Privacy-Preserving Machine Learning Models
AI Ethical Certification Framework	IIIT Delhi and Telecommunication Engineering Center (TEC)	Tools for assessing fairness of AI model
AI Algorithm Auditing Tool	Civic Data Labs	ParakhAI - An open-source framework and toolkit for Participatory Algorithmic Auditing
AI Governance Testing Framework	Amrita Vishwa Vidyapeetham and Telecommunication Engineering Center (TEC)	Track-LLM, Transparency, Risk Assessment, Context & Knowledge for Large Language Models
