GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO. 1508
TO BE ANSWERED ON: 12.12.2025

MISSION TO STRENGTHEN AI SOVEREIGNTY

1508. SHRI KARTIKEYA SHARMA:

Will the Minister of Electronics and Information Technology be pleased to state:

(a) the steps being taken under the India AI Mission to strengthen AI sovereignty, including development of indigenous compute capacity, large-scale foundational models, and secure India-owned datasets;
(b) whether Government is supporting Indian Startups, research institutions and industry to build homegrown AI hardware, software stacks, model training pipelines and trusted cloud infrastructure, if so, the details thereof; and
(c) the details of the measures proposed to reduce dependence on foreign AI technologies, including longterm investment in talent, semiconductor capacity, public sector AI platforms, and responsible AI governance frameworks?

ANSWER

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

(a) to (c): India's AI strategy is based on the Hon'ble Prime Minister's vision of democratizing technology. It aims to address India centric challenges and create opportunities.

IndiaAI Mission:
Government of India launched IndiaAI mission in march 2024. In less than 18 months, India AI Mission has set up a foundation for development of AI ecosystem in the country:

- More than 38 thousand GPUs for common compute facility are available for Indian start-ups and academia at an affordable rate.
- Twelve organisations and consortia, including startups, industry players and academic institutions have been selected for development of indigenous foundational models or Large Language Models
- AIKosh is a dataset platform which provides access to Indian datasets from government and non-government sources
- Thirty applications have been approved for developing India specific AI applications
- Fellowship target of 500 PhD fellows, 5,000 postgraduates and 8,000 undergraduates to develop AI-talent pipeline
- 27 India Data and AI labs have been established and 174 more have been approved
- Foundation-level courses are provided on AI, data and related fields such as Data Annotation, Data Curation, Data Cleaning, Data Science, etc

Details of its 7 pillars of India AI Mission are at Annexure-I.

The **India AI Governance Guidelines**, released on 5 November 2025, provide a comprehensive national framework to ensure the safe, responsible, and inclusive development and deployment of Artificial Intelligence in the country.

It outlines the principles and best practices for transparency, accountability, fairness, safety, and security in AI systems.

Semicon India Programme

Building on the success of electronics manufacturing, Government of India launched program for development of semiconductors in 2022. Government is focused on developing the entire ecosystem of semiconductors which includes - designing, fabrication, assembly, testing and packaging.

Government is also focused on developing skills and talent required for the semiconductor industry.

Semiconductor units

In less than 3 years, ten (10) units have been approved which include Silicon fab, Silicon Carbide fab, advanced packaging, memory packaging, etc.

These will cater to chip requirements of sectors such as consumer appliances, industrial electronics, AI-servers, automobiles, telecommunications, aerospace, and power electronics etc.

Development of Semiconductor Talent Pipeline

Government has adopted a comprehensive approach for building talent pipeline in semiconductors:

1. Chips to Start-up (C2S) Programme**:** To encourage India's young engineers, Government is providing latest design tools (EDA) to 395 universities and start-ups.
   Using these tools, chip designers from more than 46 universities have designed and fabricated 56 chips at Semiconductor Laboratory (SCL), Mohali.
   Training in chip design has also been provided to more than 67,000 students, and researchers so far.
2. All India Council for Technical Education (AICTE) has launched the following courses:
   (a) B. Tech in Electronics Engineering (VLSI Design)
   (b) Diploma in Integrated Circuit (IC) manufacturing, and
   (c) Minor Degree in Electronics Engineering (VLSI Design and Technology)
3. A Skilled Manpower Advanced Research and Training (SMART) Lab has been setup in NIELIT Calicut with an aim to train 1 lakh engineers nation-wide. More than 62 thousand engineers have already been trained.
4. ISM has also partnered with Lam Research for conducting a large-scale training programme in nanofabrication and process-engineering skills. These would further augment skilled workforce for ATMP and advanced packaging. The program aims to generate 60,000 trained manpower in next 10 years.

FutureSkills PRIME program is a collaborative initiative of MeitY and National Association of Software and Service Companies (NASSCOM) aimed at making India a cutting-edge digital talent nation. Key features are:

- Skilling, reskilling, and upskilling in emerging technologies such as Artificial Intelligence, Big Data Analytics, IoTs, Cyber Security, Blockchain, AR/VR, etc.
- Courses are developed in the consultation with industry to align with actual employment needs
- Portal can be accessed anytime-anywhere to earn skill certificates in line with their aptitude and aspirations
- Accessible online at https://futureskillsprime.in/

Under the programme, so far, more than 24.6 lakh candidates have registered on the portal, out of which there have been 15.7 lakh+ candidates enrolled/trained. This includes more than 4.48 lakh candidates in AI/Big Data Analytics.
Further, there are more than 550 courses on the FSP portal which includes 175 courses in AI/Big Data Analytics.

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Annexure 1

Pillars of IndiaAI Mission

1. IndiaAI Compute pillar

- A national AI compute capacity has been operationalised through empanelled AI service providers offering GPU access on cloud at subsidised rates to eligible users.
- As on date, **38,231 GPUs** have been onboarded from 14 empanelled service providers under the IndiaAI Compute Capacity framework.
- The Government of India provides access to these GPUs at subsidised rates. The average rate is approximately **Rs 65 per GPU per hour**, except for select high-end GPUs.
- Apart from compute, empanelled providers are delivering storage, networking, AI platforms and other supporting services necessary for AI model development and deployment.

2. IndiaAI Application Development Initiative

- This pillar aims to develop AI applications for India specific challenges in sectors such as climate change and disaster management, healthcare, agriculture, governance, and assistive technologies for learning disabilities.
- As on date, 30 (thirty) applications have been approved.
- In addition, sector-specific hackathons have been organized in partnership with other ministries and government institutions.
- Ex. IndiaAI launched the CyberGuard AI Hackathon in collaboration with the Indian Cybercrime Coordination Centre (I4C) under the Ministry of Home Affairs to develop AI-driven solutions for cybersecurity.

3. AIKosh

- AI Kosh provides seamless access to AI-ready datasets, models, computational resources, tools, community features, and secure, permission-based access mechanisms.
- Available resources serve as building blocks for developers, allowing them to focus on core AI functionality instead of recreating modules.
- 251 AI models and more than 27 development toolkits specific to India are available on the platform.
- The platform has attracted more than 1.4 Lakh visits, more than 10 thousand registered users.

4. IndiaAI Foundation Models

- Government aims to develop India's own Large Multimodal Models (LMMs) trained on Indian datasets and languages. It is to ensure sovereign capability and global competitiveness in generative AI.
- **Twelve (12) organisations and consortia**, including startups, industry players and academic institutions, including Sarvam AI, Soket AI, Gnani AI, Gan AI, Avatar AI, IIT Bombay Consortium (BharatGen), GenLoop, Zentieq, Intellihealth, Shodh AI, Fractal Analytics Ltd. and Tech Mahindra Maker's Lab, have been selected for developing Large and Small Language Models based on Indian datasets.
- The resulting AI models are intended to contribute to the open-source ecosystem and support innovation across India's startup and research community.

5. IndiaAI FutureSkills

- To develop AI skilled professionals in India by increasing the number of graduates, post-graduate and PhDs in AI domain. Government is providing support to:
    - 500 PhD fellows
    - 5,000 post graduates
    - 8,000 undergraduates
- **27 IndiaAI Data and AI Labs** have been established in Tier-2 and Tier-3 cities, in collaboration with NIELIT, to impart foundation-level courses on AI, data and related fields such as Data Annotation, Data Curation, Data Cleaning, Data Science, etc.
- **174 ITIs and Polytechnics across 27 States/UTs** have been approved for setting up additional IndiaAI Data and AI Labs.
- Under the IndiaAI FutureSkills initiative, the Government is supporting AI capacity building through fellowships for PhD, postgraduate and undergraduate students, with **more than 228 fellowships awarded** till date**.**

6. IndiaAI Startup Financing

- To provide financial assistance to AI start-ups.
- IndiaAI Startups Global program was launched in March 2025 in collaboration with Station F (Paris) and HEC Paris. 10 Indian AI startups are being helped in expanding into the European market.

7. Safe & Trusted AI

- To balance innovation with strong governance frameworks to ensure responsible AI adoption.
- 13 projects have been selected addressing issues like machine unlearning, bias mitigation, privacy-preserving machine learning, explainability, auditing tools, and governance testing framework. Details are placed at Annexure-II.
- An expression of interest was published on 09th May 2025 for onboarding partner institutions for setting up the IndiaAI Safety Institute.

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Annexure-II

Details of projects selected under the Safe and Trusted Pillar are as follows:

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
Deepfake Detection Tool	IIT Jodhpur (CI) & IIT Madras	Saakshya: Multi-Agent, RAG-Enhanced Framework for Deepfake Detection and Governance
	IIT Mandi & Directorate of Forensic Services, Himachal Pradesh	AI Vishleshak: Improving Audio-Visual Deepfake Detection and Handwritten Signature Forgery Detection with Adversarial Robustness, Explainability & Domain Generalization
	IIT Kharagpur	Real-Time Voice Deepfake Detection System

Bias Mitigation	Digital Futures Lab & Karya	Evaluating Gender Bias in Agriculture LLMs- Creating Digital Public Goods (DPG) for Benchmarking and Fair Data Work
Penetration Testing & Evaluation	Globals ITES Pvt Ltd & IIIT Dharwad	Anvil: Penetration Testing & Evaluation Tool for LLM and Generative AI

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