AI IN PUBLIC/PRIVATE DEPARTMENTS

2208. DR. KALANIDHI VEERASWAMY:

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

(a) whether the Government is proposing to introduce Artificial Intelligence (AI) in each public/private departments across the country;
(b) if so, the details thereof along with the departments in which the Government has already introduced it and if not, the reasons therefor;
(c) whether the Government is aware that AI is going to affect nearly 40 per cent of all jobs according to a new analysis by the International Monetary Fund (IMF);
(d) whether the Government is also aware that this could lower demand for labour, affect wages and even eradicate jobs; and
 (e) if so, the steps being taken by the Government in this regard?

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 democratise use of technology. This initiative aims to ensure that AI benefits all sectors of society, driving innovation and growth.

India is regarded as the skills capital in technology and Artificial Intelligence. The most reliable ranking in AI is placing India among the top countries with AI Skills, AI capabilities, and policies to use AI. Stanford University has ranked India among the top four countries along with the US, China, and the UK in the Global and National AI vibrancy ranking based on 42 indicators. GitHub, which is community of developers has ranked India at the top with the global share of 24% of all projects.

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.

Artificial Intelligence is being Agriculture, Healthcare, Education, Railways, Governance & Administration, Earth Science, Energy & Power, Rural Development & Panchayati Raj, Transportation and Law & Justice by various central and state governments departments and organizations.

The government's approach focuses on leveraging AI for economic growth and development while fostering a robust AI ecosystem. In this regard, 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. This mission is driven by a vision to position India as a global leader in artificial intelligence by focusing on seven foundational pillars.

IndiaAI Compute:

- IndiaAI compute pillar envisions building a high-end scalable AI computing ecosystem comprising AI compute infrastructure of 10,000 or more Graphics Processing Units (GPUs).
- Towards this, IndiaAI Independent Business Division (IBD) published a Request for Empanelment (RFE) on August 16, 2024, to empanel AI services on cloud including GPUs. 19 bidders had submitted proposals to empanel their AI cloud services, out of which 10 bidders have been empaneled.
- Against the target of 10,000 GPUs outlined in the IndiaAI compute pillar, **empaneled bidders have offered 14,517 GPUs at an average rate of Rs. 115 per GPU hour with Government support of upto 40%**. Further, an IndiaAI Compute Portal has been developed for accessing and leveraging the empaneled AI services on cloud.

IndiaAI FutureSkills:

- IndiaAI FutureSkills Pillar envisions to augment the number of graduates, postgraduate and PhDs in AI domain. Further, it envisions setting up Data and AI Labs in Tier 2 and Tier 3 cities across India, to impart foundational-level courses in Data and AI.
- IndiaAI fellowship are being awarded annually to 400 B.Tech and 500 M.Tech students working in AI domain from All India Council for Technical Education (AICTE) recognized engineering institutions.
- Top 50 National Institutional Ranking Framework (NIRF) ranked research institutes have been asked to take new PhD scholars under IndiaAI PhD fellowship
- A model IndiaAI Data Lab in the National Institute of Electronics & Information Technology (NIELIT‟s), Delhi has been set up, which acts as a reference point for the infrastructure to be set up in Tier 2 and Tier 3 cities as a part of the initiative.
- IndiaAI has established IndiaAI Data Lab in National Institute of Electronics & Information Technology (NIELIT's) Delhi centre and & ICET, Nagaland. Additionally, IndiaAI in collaboration with NIELIT plans to establish 27 data labs in Tier 2 and Tier 3 cities across the country, details of which are placed at **Annexure I.**

IndiaAI Startup Financing:

- IndiaAI Startup Financing pillar is to provide support to AI startups at all stages. Multiple rounds of stakeholder consultations have been held to deliberate on the scheme for supporting AI Startups at Pre-Seed, Seed and Growth stage.
- In collaboration with STATION F and HEC Paris, the IndiaAI Mission will launch an acceleration program for Indian AI startups. This four-month immersive program (1 month online, 3 months onsite at STATION F in Paris) at the world's largest startup campus will provide 10 selected AI startups with access to mentorship, networking, and global market expansion opportunities in Europe. A call for applications has been announced at the event.

IndiaAI Innovation Centre:

- IndiaAI Innovation centre aims to develop and deploy indigenous Large Multimodal Models (LMMs) trained on India-specific data
- IndiaAI 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. 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.

IndiaAI Datasets Platform:

- The IndiaAI Datasets Platform (IDP) seeks to enhance access, quality, and utilization of public sector datasets to make them AI-ready.
- Government has launched AIKosh: IndiaAI Datasets Platform. AIKosh is a secured platform that provides a repository of datasets, models and use cases to enable AI innovation. It also features AI sandbox capabilities through an integrated development environment along with tools and tutorials.

IndiaAI Applications Development Initiative:

- IndiaAI Application Development Initiative aims to develop, scale, and promote the adoption of impactful AI solutions to effectively tackle significant problem statements.

- IndiaAI Innovation challenge was launched on the themes of healthcare, agriculture, improved governance, climate change & disaster management and assistive technologies for learning disabilities. The Innovation Challenge was open to Indian innovators, startups, non-profits, students, academic/R&D organizations, and companies. 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 II**
- CyberGuard AI Hackathon was launched on 17th October 2024 for Cybercrime prevention in collaboration with the Indian Cybercrime Coordination Centre (I4C) and in response 263 responses have been received, and the top 20 shortlisted teams were invited to a physical hackathon at I4C. From these, the top three teams were selected for pilot testing of their solutions at I4C.

Safe & Trusted AI:
- This pillar enables the implementation of Responsible AI projects including the development of indigenous tools and frameworks, self-assessment checklists for innovators, and other guidelines and governance frameworks.
- 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 III.**
- Further, IndiaAI invited Expressions of Interest from individuals and organizations for the development of tools in areas such as Watermarking & Labelling, Ethical AI Frameworks, AI Risk Assessment & Management, Stress Testing Tools, and Deepfake Detection Tools.

*****

List of Data & AI labs planned by IndiaAI in collaboration with NIELIT in Tier 2 and Tier 3 cities across the country:

S.No.	NIELIT Centre	State/UT
1	Gorakhpur	Uttar Pradesh
2	Lucknow	Uttar Pradesh
3	Shimla	Himachal Pradesh
4	Aurangabad	Maharashtra
5	Patna	Bihar
6	Buxar	Bihar
7	Muzaffarpur	Bihar
8	Kurukshetra	Haryana
9	Ropar	Punjab
10	Haridwar	Uttarakhand
11	Bikaner	Rajasthan
12	Tezpur	Assam
13	Bhubaneswar	Odisha
14	Calicut	Kerala
15	Guwahati	Assam
16	Itanagar	Arunachal Pradesh
17	Srinagar	J&K
18	Jammu	J&K
19	Ranchi	Jharkhand
20	Imphal	Manipur
21	Gangtok	Sikkim
22	Agartala	Tripura
23	Aizawl	Mizoram
24	Shillong	Meghalaya
25	Kohima	Nagaland
26	Leh	Ladakh
27	Silchar	Assam

Annexure II

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 sustainable future using AI	In-house developed MRV (Measurement, Reporting, and Verification) technology designed to ensure the integrity and quality of generated carbon credits.	Existing Solution	Varaha ClimateAG Private Limited	Agriculture
2	Krishi Sah'AI'yak - Farming Co-pilot	AI-powered conversational co-pilot to provide personalized advisory to farmers in Indic languages	Existing Solution	Samagra Development Associates Pvt. Ltd	Agriculture
3	Kadalcompass - We Amplify the voice of water using Hydro-AI,Underwatercom,IoUT with Sensor Network	5G-enabled device that transforms fishing practices using AI, IoUT, and advanced communication technologies	Existing 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.	Existing 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	Existing Solution	Neoperk Technologies	Agriculture

		spectral device, and ML models to deliver timely, chemical-free soil analysis.			
6	AI deep-tech driven quality assessment of Maize	SAAS platform to provide objective quality assessment of maize including price estimation & sales pipelining.	Existing Solution	RootsGoods (OPC) Pvt. Ltd.	Agriculture
7	AI-Driven Live Fish Logistics and Mortality Reduction in Aquaculture	AI-driven solution that optimizes aquaculture operations	Existing Solution	Shuvoneel Ras System Pvt. Ltd.	Agriculture
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 Developed	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	Conceptual Idea	I-Hub for Robotics and Autonomous Systems Innovation Foundation	Climate
10	Multi-Hazard Susceptibility Mapping	hazard management system topredict Landslides, Debris Flows and Flash Floods	Prototype Developed	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 Developed	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 Developed	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	Existing Solution	Endimension Technology Pvt. Ltd.	Healthcare
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.	Existing 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	Existing 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	Existing Solution	Startoon Labs Private Limited	Healthcare

		Healthcare			
17	VoxelBox	Neuro-informatics platform that allows to map the functional maps / connectomics of the human brain	Prototype Developed	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 Developed	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 Developed	Jivi Health Pvt. Ltd.	Healthcare
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	Prototype Developed	SIAMAF Healthcare	Healthcare

		lymph nodes using AI/ML based algorithms			
21	Readabled (Online Dyslexia Training)	web-based application designed to help children with dyslexia improve phonetic awareness through interactive exercises.	Existing Solution	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 Developed	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 Solution	Kidaura Innovations Pvt Ltd	Learning disabilities
24	Jiveesha	AI-powered diagnostic platform for early detection of SLDs	Conceptual 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 Developed	Narottam Innovations Pvt. Ltd.	Learning disabilities
26	Special Educator AI	AI-driven system designed to address India's shortage of	Conceptual Idea	Banyan Intelligence Private Limited	Learning disabilities

		special educators and 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.	Existing Solution	Nobroker Technologies Solutions Pvt. Ltd	Governanc e
28	AI contact center	AI-powered technologies like machine translation, NLP, ASR and TTS, and multilingual voice recognition to enhance governance by improving communicatio n and accessibility across India's linguistic diversity	Existing Solution	Devnagri AI Pvt. Ltd	Governanc e
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 Developed	Legsys.AI Technology Foundation	Governanc e
30	Gov.Civis.Vote	AI-powered Digital Public Infrastructure designed to transform	Existing Solution	Civic Innovation Foundation	Governanc e

		public consultations in India by making citizen engagement more inclusive, scalable, and comprehensiv e			

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

******