IIT-I unveils AI-driven Centre of Excellence for sustainable agri

Project Jointly Funded By MeitY & MP Govt For A Period Of Five Years

TIMES NEWS NETWORK

Indore: The Indian Institute of Technology, Indore (IIT-I) on Monday inaugurated AgriHub — a Centre of Excellence (CoE) for sustainable agriculture — utilising artificial intelligence (AI), machine learning (ML), and deep learning (DL). This endeavour aims to foster innovation and transform Indian agriculture.

The CoE will work to enhance efficient utilisation of resources and expertise, aligning technological advancements with requirements of farmers, NGOs, and other key stakeholders. It aims to address losses due to critical agricultural challenges such as drought, floods, and low productivity. The centre will facilitate advanced research in areas such as drought-resistant crops, precision farming, and AI-driven disease diagnosis, utilising big data analytics and genomic research to promote data-driven

HUB OF INNOVATION

➤ AgriHub aims to foster innovation and transform Indian agriculture

➤ It will address losses due to critical agricultural challenges such as drought, floods, and low productivity

➤ The centre will facilitate advanced research in areas such as drought-resistant crops, precision farming, and AI-driven disease diagnosis, utilising big data analytics and genomic research to promote data-driven agriculture

agriculture.

IIT-I director professor Suhas Joshi said, "The project aims to speed up varietal development programme through an integrated platform for genome sequencing and big data analysis. High throughput sequencing and novel genome analysis software will help in developing new crop varieties which can overcome adverse climatic conditions and increase crop production."

"Smart farm management approaches will be developed through the application of precision agriculture technologies, drone image analysis, and AI-powered support to farmers for demand forecasts. This will help farmers increase crop production and get higher income by using various tools/apps directly or indirectly. The project will develop several new startups, IP, publications, and innovations in agriculture genomics, introducing innovative big data analytics and AI/ML technologies," said Joshi.

The project is jointly funded by the ministry of electronics and information technology (MeitY) and the govt of Madhya Pradesh for a period of five years. During this span, the CoE is targeted to establish a self-sustaining ecosystem ensuring long-term financial and operational sustainability.

With a mission to empower researchers, breeders and farmers, AgriHub will serve as a collaborative platform, bringing together stakeholders from diverse sectors to develop innovative solutions for Indian agriculture, IIT-I said.

Chief guest, MeitY secretary S Krishnan, emphasised the importance of startups in driving innovation while advocating for collaboration with established industries to adopt modern technologies for increased agricultural yields and profits.

The project is led by IIT-I faculties professor Aruna Tiwari and professor Pavan Kankar. "We intend to merge scientific innovation with farming practices to deliver tangible benefits to farmers, researchers, and agricultural community. Grassroot level ideas are taken from different stakeholders such as farmers/NGOs. This CoE provides a networking platform to connect with a team that will create a pipeline for technology transfer, patents, collaborations, products, and initiate startups. In this CoE, a set-up of high-performance computing and big data analytics is established to implement AI/ML platforms-based solutions for agricultural applications," said professor Tiwari.

AgriHub will also conduct training programmes and skill workshops for students and the technical community. This initiative will not only drive innovation in agriculture but also contribute to job creation in the IT and computing sectors, fostering a technologically empowered agricultural ecosystem, IIT-I said.