

# IIT Indore's AgriHub spearheads AI-driven farming revolution

## Our Staff Reporter

INDORE

In a step toward technology-enabled farming, the AgriHub – Innovation Hub for Agriculture at the Indian Institute of Technology (IIT) Indore has emerged as a national platform

## 21 research projects and advanced cloud computing facility set to modernise farming

for research and industry collaboration. Established to modernise Indian agriculture through Artificial Intelligence (AI) and Deep Learning, the hub is expanding its impact on the sector.

Inaugurated on Jan 27, 2025, by MeitY Secretary S Krishnan, the transdisciplinary initiative is led by Aruna Tiwari. The project is jointly funded by the Union Ministry of Electronics and Information Technology (MeitY), the Madhya Pradesh Department of Science and Technology, and industry partners.

Within a year, AgriHub has supported 11 research projects. Key outcomes include a soil microbial testing kit for health assessment and a computer vision-based smart pesticide spraying system to reduce costs. Other innovations feature an IoT-based soybean disease forewarning system, groundwater forecasting applications, and a genome analysis platform. Building on this, AgriHub recently approved 10 new AI-

based genomics projects, bringing the total to 21 projects and one startup. These focus on vital crops such as soybean, chickpea, wheat, and rice.

A major milestone was the opening of the AgriHub Technology Centre on June 12 by Sanjay Dubey, Principal Secretary (S&T MP), and IIT Indore Director Suhas Joshi. The centre features high-performance computing (HPC) systems and AgriEdgeX, a private cloud infrastructure equipped with NVIDIA DGX H200 GPUs, making it one of Central India's most advanced facilities.

Joshi highlighted the hub's role in delivering technology-driven solutions, while Tiwari emphasised the vision of bridging the gap between technology and real-world agricultural needs.

## AGRIHUB AT A GLANCE

**Founded:** Jan 27, 2025.

**Funding:** MeitY, MP Government, and industry partners.

**Portfolio:** 21 research projects and one startup.

**Tech Stack:** AI, IoT, Drones, and NVIDIA DGX H200 GPUs.

## KEY INNOVATIONS

**Soil Health:** Microbial testing kits for farmers.

**Smart Spraying:** Computer vision to optimise pesticide use.

**Crop Care:** IoT-based disease forewarning for soybean.

**Genomics:** AI-driven platforms for wheat, rice, and chickpea.