

Press Release



IIT Mandi Launches Free of Cost AI Tool “WatershedAI” To Assess River Basin Climate Future Within Minutes In 19 Languages

AI-powered tool generates publication-grade watershed climate reports in 19 languages for researchers, policymakers, students and citizens

18th May, 2026; Mandi: The Indian Institute of Technology (IIT) Mandi, one of India’s leading IITs, has launched **WatershedAI**, a revolutionary application on its INCLINE (Indian Climate Information Explorer) Platform, in a major step towards making climate intelligence and water resource assessment more accessible and affordable. Developed by HIMPACT Lab (Himalayan Hydro climatology Impact Research Lab) at IIT Mandi, the platform combines hydrological modelling, deep learning and multilingual artificial intelligence to generate comprehensive climate assessments of any watershed in India within 3 to 8 minutes.

Available free of cost, the platform delivers publication-grade watershed reports in 19 languages, significantly improving accessibility to climate science and water-related insights for researchers, policymakers, students and citizens.

Dr. Vivek Gupta, Faculty at the School of Civil and Environmental Engineering and Lead of the HIMPACT Lab, IIT Mandi described the ambition behind the tool: *“Our goal with INCLINE has been to compress the gap between cutting-edge hydrological research and actual decision-making on the ground. The WatershedAI feature integrates morphometric analysis, soil and land use characterisation, observed and projected climate data, drought indices and a Dynamic Budyko v2 water-yield model into one coherent narrative. Every report is reproducible, traceable to its data sources, and can be generated for a gauged or completely ungauged basin.”*

The multilingual dimension of the tool was a deliberate priority from the start. WatershedAI delivers its full AI-written narrative in 19 languages — Hindi, Tamil, Bengali, Telugu, Kannada, Gujarati, Marathi, Punjabi, Odia, Urdu and Malayalam among Indian languages, alongside English, Arabic, Chinese, Japanese, Spanish, French, German and Portuguese.

Mr. Siddik, PhD Scholar at the HIMPACT Lab and co-lead developer of the feature, explained the thinking: *“We wanted a hydrologist in Tamil Nadu, a district planner in Himachal Pradesh and a student in Manipur to all be able to ask the same scientific question*

of a watershed and receive an answer in their own language without compromising on the underlying science."



Equally important was making the platform work for India's real infrastructure conditions. Mr. Piyush Panpaliya, a 3rd year BTech student at IIT Mandi and web developer of the INCLINE Platform, noted: *"Our focus on the engineering side was to make a heavy scientific workflow feel light to the user. The map-based outlet selection, asynchronous report generation, multilingual rendering and the in-app chat all had to work reliably on modest internet connections and across devices, because that is the reality for most users in India."*

Designed to serve government agencies, researchers, educators, students and citizens alike, **WatershedAI** simplifies access to reliable climate and water intelligence for watersheds across India, including remote ungauged regions. By making scientific assessments faster, multilingual and accessible without specialised tools, the platform supports national priorities such as Jal Shakti, Digital India and climate adaptation initiatives. WatershedAI is now available on the INCLINE platform. With the help of **WatershedAI**, users can obtain comprehensive climate assessments, including information on watershed morphology, drainage pattern, soil conditions, land use, climate trends, drought history, extreme weather events, and projected water availability, at the touch of a button. All the information is scientifically backed by original data sources.

WatershedAI is available now at incline.iitmandi.ac.in

About IIT Mandi:

Indian Institutes of Technology Mandi is one of the top second-generation IITs located in Kamand Valley, Mandi district of Himachal Pradesh, India. It is one of eight new Indian Institutes of Technology (IITs) established by the Ministry of Human Resource Development, Government of India, and recognized as one of Institutes of National Importance. IIT Mandi's permanent campus about 14 km (8.7 mi) from Mandi consists of the South and North campuses connected by a narrow neck. The South campus is on the left bank of the Uhl River below Kamand village. The North campus is along the Kataula Khad opposite Salgi village. A transit campus at Government Post graduate College, Mandi was handed over by the Himachal Pradesh Government on 16 November 2009. The Kamand campus ground-breaking ceremony, to mark the start of construction, was held on 13 April 2012. On 25 April 2015, IIT Mandi became the first of all the new IITs to completely shift B. Tech students to its permanent campus in Kamand. Since its inception the institute has been involved with more than 275 Research and Development (R&D) projects worth more than ₹120 crore. In the past

10 years, the institute has signed Memorandum of Understanding (MoU) with as many as 11 international and 12 national universities.



Follow us on:

- **LinkedIn** - <https://www.linkedin.com/school/indian-institute-of-technology-mandi/?originalSubdomain=in>
- **Twitter** - https://x.com/iit_mandi
- **Facebook** - <https://www.facebook.com/IITMandi2009/>
- **Instagram** - <https://www.instagram.com/iitmandi2009?igsh=emViamxrbTgzNHc=>
- **Youtube:** <https://www.youtube.com/@iitmandi7301>

Please visit our official website: <https://www.iitmandi.ac.in/>

Media Contacts: Adfactors PR

Taran Singh
Sr. Manager
9887999284

Shalika Thakur
Account Executive
7807490819