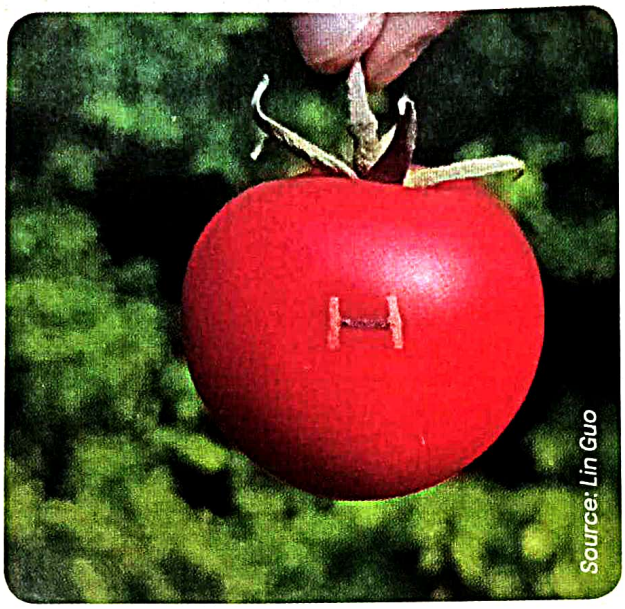
Sustainable Printed Magnetic Field Sensors

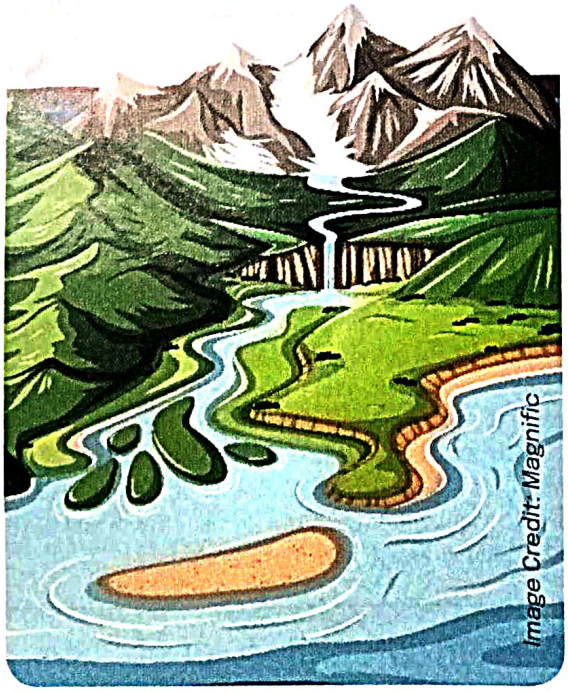


A biodegradable magnetic field sensor printed on a tomato

RESEARCHERS from the Helmholtz-Zentrum Dresden-Rossendorf (HZDR) have developed printed magnetic field sensors which are composed of iron, iron oxide and bio-based materials like cellulose starch. According to researchers, the sensors are produced by screen printing, a process that is more familiar in the textile industry. Instead of removing a large area of material, the sensor layer is applied in a targeted manner. Additionally, it also saves material and energy by printing sensors where they are needed. Moreover, the sensors measure magnetic fields reliably, are resource-saving to produce and can purportedly be disposed of safely or recycled after use. The research was published in Nature Communications.

Source: Helmholtz-Zentrum Dresden-Rossendorf (HZDR) Press Release

AI Tool WatershedAI to assess River Basin Climate Future within minutes in 19 languages



MAKING climate intelligence and water resource assessment more accessible and affordable, researchers from the IIT Mandi have developed an application WatershedAI. 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.

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.

Source: IIT Mandi Press Release