

Avnet India and NITK Surathkal Collaborate on AI-Powered Solutions for Landslide Detection and Wildlife Preservation

Category: Business

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Avnet India Pvt. Ltd., a leading global technology distributor and solutions provider, today announced its partnership with the National Institute of Technology Karnataka (NITK), Surathkal, one of Indias premier academic institutions. This collaboration, an integral part of Avnet Indias robust ESG (Environmental, Social, and Governance) initiatives, focuses on leveraging Avnets recognized expertise in AI-driven solutions for critical sustainability projects and biodiversity conservation efforts.

Through this collaboration, Avnet India is working closely with the Department of Electronics and Communication Engineering (ECE) at NITK, Surathkal, on three impactful sustainability projects, utilizing AI and machine learning technologies:

- 1. AI-assisted Real-time Landslide Detection and Alerting System:** This project uses AI techniques and Avnets development boards to provide early detection and timely alerts for landslides, helping to protect lives and property in high-risk areas like the Himalayas and Western Ghats.
- 2. Automated Bird Identification and Survey System:** Using

deep learning, this system automates bird species identification from audio and video recordings, streamlining data collection in challenging environments and supporting conservation research.

3. Automated Bird Sound Identification for Tackling Illegal Wildlife Trafficking: This innovative system aims to detect and identify bird sounds to combat illegal wildlife trafficking. By integrating machine learning, the system enhances detection capabilities at checkpoints and contributes to preserving biodiversity by identifying bird calls in flight baggage.

As part of this partnership, Avnet India is also supporting the significant upgrade of NITKs Electronic Systems Laboratory with state-of-the-art equipment, including digital oscilloscopes and AI-embedded development boards, which will be vital for advancing these sustainability solutions.

With over 100 years of experience in technology distribution, Avnet has built strong relationships with global suppliers, equipping customers with the tools they need to navigate complex design and supply chain challenges. Through collaborations like the one with NITK, Avnet fosters innovation by enabling the creation of scalable, AI-powered solutions aimed at addressing pressing environmental and societal issues.

*“Our partnership with NITK Surathkal highlights Avnet Indias commitment to our global ESG strategy,” said **Suresh Kamath, Managing Director, Avnet India.** “We are passionate about harnessing technology for environmental and community impact. The innovative solutions we are developing together-particularly in landslide detection and bird conservation-align perfectly with our goals of fostering a sustainable future and preserving biodiversity.”*

Building on this, the **HOD of ECE, NITK** shared their

perspective on the collaboration: “We are excited to collaborate with Avnet India on these groundbreaking sustainability projects. By leveraging cutting-edge AI and machine learning technologies, we aim to address some of the most pressing environmental and conservation challenges, from landslide detection to wildlife preservation. This partnership enables our students and faculty to engage in impactful research while contributing to the broader societal goals of sustainability and biodiversity conservation. We look forward to the continued success of this collaboration, which underscores the importance of industry-academia partnerships in driving innovation for the future.”

The upgraded lab was officially inaugurated on April 16, 2025, by Sunil Kumar G, Senior Business Unit Manager (Xilinx) from Avnet India, along with other senior members from the company, and Professor Neelawar Shekar Vittal Shet from the Department of ECE, NITK. Professor Bhallamudi Ravi, Director of NITK, Surathkal, was also in attendance, along with some 60 faculty members and students.

NITK, recognized as an Institute of National Importance by the Government of India, consistently ranks among the top engineering education institutes in the country. Avnet India's support of the NITK Electronics and Communications Engineering (ECE) department is part of its CSR program for 2024-25.

About Avnet

As a leading global technology distributor and solutions provider, Avnet has served customers evolving needs for more than a century. Through regional and specialized businesses around the world, we support customers and suppliers at every stage of the product lifecycle. We help companies adapt to change and accelerate the design and supply stages of product development. With a unique viewpoint from the center of the technology value chain, Avnet is a trusted partner that solves complex design and supply chain issues so customers can

realize revenue faster.

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