IIT Mandi develops wireless tech for IoT applications

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Researchers at the Indian Institute of Technology Mandi are working towards developing efficient remote powering and communication technology for futuristic Internet of Things (IoT) applications.

The findings of this study were published in the Wireless Networks. The study was led by DR Siddhartha Sarma, Assistant Professor, School of Computing and Electrical Engineering, IIT Mandi, and co-authored by his student Shivam Gujral, PhD Scholar, School of Computing and Electrical Engineering, IIT Mandi.

The potential of the proposed system is vast and includes applications such as battery-free wireless cameras, wireless monitors, sensors, skin-attachable sensing platforms, contact lenses, machine-to-machine communication and human-to-machine interactions, among others.

Highlighting his research, Gujral said, "We have developed a cooperative model, in which, backscatter communication and radiofrequency energy harvesting (RF-EH) devices act together to optimally allocate the resources such as time and antenna weights."