Ask the right questions, and nature will open the door to her secrets
- Dr. C.V. Raman, The Nobel Prize in Physics 1930

IIT Kanpur Developed Novel Technology for Lung Health Monitoring

Researchers at the Indian Institute of Technology Kanpur (IITK) in a close collaboration from a group of inventors from IIT Kharagpur, and the International Institute of Information Technology (IIIT) Naya Raipur, developed a novel technology for luncg health monitoring "A Continuous Lung Health Monitoring System". The Ministry of Electronics and Information Technology (MeitY), Govt. of India provided financial support for the innovation and the technology has been protected by Indian Patent application no. 202311027111. The technology is a low-cost, ubiquitous, unobstructive, and compact system that can help healthcare teams to track patients' lung health status.

Tata Elxsi to develop Automotive Cyber Security Solutions with IISc

Tata Elxsi, which is among the world's leading design and technology service providers across industries, announced the joint development of an Automotive Cyber Security Solution together with the Indian Institute of Science (IISc). This collaboration would leverage Tata Elxsi's well-established, industry acknowledged AI and machine learning skill set and the business foray towards software- defined vehicles (SDV) & EV solutions, coupled with the strength of advanced research at IISc. The partnership would also work to prevent and detect potential security threats and anomalies with preventive insights on future.

IIT Kanpur Entered into 6G Research Partnership with InterDigital Inc

To develop 6G enabling technologies that impact future wireless standards, the Indian Institute of Technology, Kanpur (IITK) entered into a bilateral research partnership with InterDigital, Inc, which is a mobile and video technology research and development company. As part of the partnership, InterDigital would sponsor research and innovation at IIT-K in advancing Extreme MIMO (Multiple-Input, Multiple-Output) systems to achieve higher spectrum efficiency and larger network coverage required for 6G network deployments. These advancements are critical for enabling 6G networks to scale and meet increased bandwidth and coverage demands of advanced applications such as metaverse, holographic communications and digital twin.

IISc Team Developed Fully Indigenous Gallium Nitride Power Switch

Researchers at the Indian Institute of Science (IISc) developed a fully indigenous gallium nitride (GaN) power switch that could have potential applications in systems like power converters for electric vehicles and laptops, as well as in wireless communications. The entire process of building the switch from material growth to device fabrication to packaging was developed in-house at the Centre for Nano Science and Engineering (CeNSE), IISc. To design the GaN power switch, the IISc team used a metal organic chemical vapour deposition technique developed and optimised over a decade by researchers in the lab. Going forward, the researchers planned on scaling up the device dimensions so that it could operate at high currents. They also planned to design a power converter that could step up or step down voltages.

Special Update: IIT Madras opened CoE for Sustainability Aiming to Tackle Global Challenges

Indian Institute of Technology Madras (IIT Madras) opened a Centre of Excellence (CoE) for Sustainability aiming to tackle global challenges. The School of Sustainability seeks to address global issues while also targeting Indian challenges, emphasising human capacity building and industry partnerships for holistic solutions. It would also provide a platform to host events and showcase technologies that could help drive both practice and policy. Conceptualised as a Centre of Excellence, the school would bring together faculty members from across departments and research centres of the Institute. The school has identified four key areas: of research and development: in decarbonisation, Human Settlements, Modelling and Scenario Development, and Behavioural and Industrial Change. In these four areas, the School would undertake basic scientific research, translational and product development, pilot implementations and policy advisory.