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Ask the right questions, and nature will open the door to her secrets

- Dr. C.V. Raman, The Nobel Prize in Physics 1930

IISc Bengaluru Announced Opening of the Nokia Center of Excellence (CoE) in Networked Robotics

Indian Institute of Science (IISc) Bengaluru & Nokia announced the opening of the Nokia Center of Excellence (CoE) in Networked Robotics at the IISc Bengaluru. The CoE would promote inter-disciplinary research involving robotics & advanced communication technologies in 5G and Artificial Intelligence (AI). The CoE would also develop use cases across industrial automation, agriculture and disaster management & also facilitate engagement and cooperation between academia, start-ups and industry ecosystem partners to research and develop these use cases. The research projects undertaken by the CoE would include the design of advanced robotics, AI and automation solutions built upon next generation telecom networks and their applications for solving societally relevant problems.

IAF Launched Artificial Intelligence (AI) Centre of Excellence (CoE)

Ministry of Defence, Govt. of India, reported that Indian Air Force (IAF) launched the IAF Centre of Excellence for Artificial Intelligence under the aegis of UDAAN (Unit for Digitisation, Automation, Artificial Intelligence and Application Networking) at New Delhi. Further, a Big Data Analytics and AI Platform has been commissioned in the IAF's AI Centre, for handling all aspects of Analytics, Machine Learning, Natural Language Processing, Neural Networks and Deep Learning algorithms.

IIT Madras developed an Artificial Intelligence-Based Tool, 'PIVOT' that Predicts Cancer-Causing Genes

Researchers at Indian Institute of Technology Madras (IIT Madras) developed an Artificial Intelligence-based tool, 'PIVOT', that could predict cancer-causing genes in an individual. 'PIVOT', developed by IIT Madras researchers, is designed to predict genes that are responsible for causing cancer in an individual and the prediction is based on a model that utilizes information on mutations, expression of genes, and copy number variation in genes and perturbations in the biological network due to an altered gene expression. Researchers also added that this tool would ultimately help in devising personalized cancer treatment strategies as the tool is based on a machine learning model that classifies genes as tumor suppressor genes, oncogenes, or neutral genes.

IIT Kharagpur Developed Rapidly charging E-cycle with Na-ion Batteries and Supercapacitors

Researchers at Indian Institute of Technology (IIT) Kharagpur, with the support from the Technology Mission Division (TMD) of the Department of Science and Technology (DST), Govt. of India, obtained Na-ion-based batteries and supercapacitors and by using them developed batteries & supercapacitors, which could be rapidly charged. Researchers also added that the low-cost Na-ion-based technologies would be cheap and are expected to reduce the cost of the e-cycle significantly within the range of Rs. 10-15 K, making them nearly 25% cheaper than Li-ion storage technologies-based e-cycles.

Special Update: IIT Kharagpur Developed an Indigenous, Efficient, Affordable & Certified BLDC Motor & Smart Controller for e-Rickshaws

Indian Institute of Technology (IIT) Kharagpur under a programme for Indigenous Development of Electric Vehicle Sub-systems by Ministry of Electronics and Information Technology (MeitY) developed an Indigenous, Efficient, Affordable and Certified BLDC motor and smart controller for e-Rickshaws. IIT Kharagpur developed the Certified BLDC motor and smart controller to increase the local manufacturing as more than 90% of the components and its technology for Electric Vehicles (like motor/controller/converter/Battery Management System/Charger) are being imported & it is also not suitable as per environment, road and traffic conditions in India. Further, the Indigenous technology developed by IIT Kharagpur for BLDC motor and smart controller for e-Rickshaws was transferred for commercial production.