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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

Researchers Developed Mathematical Metrics to Measure & Quantify Yoga Asanas

Researchers at Ramaiah Medical College develoed a Mathematical Metrics based on the study both physical and physiological parameters of Electromyography (EMG), which can help in to quantify and measure the correctness of performance of yoga asanas. The matrics provides a clear picture of the targeted muscles and an insight to the practitioner about the stability of the postures in terms of muscle activity. The study also provides understanding of the mechanics of Yoga both from a biomechanical as well as a motor control perspective which succeeded in laying a foundational framework for future research in this area.

IBM & IISc Launched Innovation Lab to Advance Hybrid Cloud Research

IBM & Indian Institute of Science (IISc) jointly launched the IBM-IISc Hybrid Cloud lab to advance research in hybrid cloud technologies and drive breakthrough innovations in this area. The Hybrid Cloud lab would help researchers and scientists to conduct cutting-edge research that can help organizations to leverage the true power of hybrid cloud by enabling faster, seamless, and more secure adoption of hybrid cloud & Artificial Intelligence (AI).

ARCI Developed for Cost-Effective Catalysts for Metal-Air Battery

International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), an autonomous R&D Centre of Department of Science and Technology (DST), Govt. of India, developed a cost-effective catalyst for metal-air battery by anchoring transition metal ions into the sulfur-doped carbon framework via carbonization of a polymer called sPEEK (sulphonated polyether ether ketone). This catalyst synthesis method can also be used to recycle used ionomers (polymer composed of both neutral repeating units and ionized units). The research has been published in ACS Applied Energy Materials.

DRDO Successfully Fired Indigenously Developed Enhanced Range 122mm Caliber Rocket

Defence Research and Development Organisation (DRDO) successfully test fired the indigenously developed 122mm Caliber Rocket from a Multi-Barrel Rocket Launcher (MBRL) at Integrated Test Range (ITR), Chandipur. DRDO also confirmed that the rockets have been developed for Army applications and can destroy targets up to 40 km.

Special Update: Scientists Developed a Simple, Cost-effective, Bio-Compatible, Transparent Nanogenerator for Applications in Optoelectronics, Self-powered and Biomedical Devices

Scientists at Centre for Nano and Soft Matter Sciences, Bengaluru, an autonomous institute under the Department of Science & Technology, Govt. of India, developed and fabricated a simple, cost-effective, bio-compatible, transparent nano-generator the fabricated device could light up eleven LEDs by gentle hand tapping and could be a potential candidate for use in optoelectronics, self-powered devices, and other biomedical applications. The scientists also confirmed that the easy availability of the active material and the simplicity of the fabrication process make it cost-effective over currently available fabrication techniques and the resulting device is also highly efficient, robust, and gives reproducible output over long hours of operation. The scientists designed a transparent triboelectric nanogenerators (TENG), which make use of mechanical energy in the form of vibrations present everywhere in different forms to generate electricity.