



Embassy of India, Berne

# INDIA SCIENCE AND INNOVATION WEEKLY

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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*

## Indian startup developed an air decontamination technology

Under the Centre for Cellular and Molecular Platforms (C-CAMP)'s COVID-19 Innovations Deployment Accelerator programme (C-CIDA), Indian startup Biomoneta, Bengaluru has developed an air decontamination technology, which promises to eliminate airborne COVID-19 virus with 99.9999% efficiency in any closed setting. Biomoneta conducted validation studies at the Indian Institute of Science, Bengaluru, with support from the Department of Biotechnology's Biotechnology Industry Research Assistance Council (DBT-BIRAC) and has proven to be effective against pathogens notorious for causing secondary infections in hospitals, including bacteria such as Mycobacterium tuberculosis, fungi such as Candida, and viruses such as H1N1 which cause influenza.

## By 2025, India's mobile gaming market set to hit USD 7 billion - IAMAI

As per the reports by Internet and Mobile Association of India (IAMAI), RedSeer and OnePlus, India's mobile gaming market is set to triple in size to USD 6-7 billion by 2025 as compared to USD 1.8 billion in 2021. The report highlighted that India has the world's largest number of game downloads, estimated to be 825 million in August 2021, or 17.6 percent of total worldwide downloads. This growth in downloads is further driven during Covid-19 restrictions as games as mobile app downloads increased by 50%.

## Researchers at CeNS developed scalable synthesis method of Nano-crystals

Researchers at the Centre for Nano and Soft Matter Sciences (CeNS), an autonomous research institute under the Department of Science and Technology (DST), has developed scalable synthesis method of Nano-crystals with bright emission colours useful for LED which are necessary for industrial applications. These nanocrystals are called two-dimensional layered perovskite and perovskitenano crystals which are useful for both high colour purity and low-cost solution processability. The researchers showed & also demonstrated a white-light-emitting diode with the mixture of these perovskites. Further works are in progress by the CeNS team to increase the stability of these nanomaterials.

## Indian scientists developed an environmentally friendly, non-toxic, biodegradable polymer

Indian scientists developed an environmentally friendly, non-toxic, biodegradable polymer using guar gum and chitosan, both of which are polysaccharides extracted from guar beans and shells of crab and shrimps, which has high water stability, high mechanical strength, and excellent resistance to harsh environmental conditions can potentially be used in packaging applications. This work has been published recently in the journal 'Carbohydrate Polymer Technologies and Applications'.

## Special Update: Launch of state-of-the-art Heli-borne survey technology for ground water management

Ministry Science and Technology and Ministry of Jal Shakti jointly inaugurated and launched the State-of-the-art Heli-Borne Survey technology for ground water management in Arid Regions for drinking purposes in Jodhpur, which has been developed by Council of Scientific & Industrial Research (CSIR) & National Geophysical Research Institute (NGRI) Hyderabad. CSIR & NGRI have undertaken High Resolution Aquifer Mapping & Management in Arid Regions of North Western India to augment the groundwater resources and this geophysical mapping technique provides a high resolution 3D image of the sub-surface up to a depth of 500 meters below the ground. This is a mega project of INR 150 crores to be implemented in two phases as a part of National Aquifer Mapping Project.