



# INDIA SCIENCE AND INNOVATION WEEKLY

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

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

## India's first indigenous pothole cleaner

Central Road Research Institute (CRRI), New Delhi, India in collaboration with JCB India developed the first native pothole repair machine. The Made in India machine was successfully tested on roads in Pune and repaired 15 to 20 potholes in an hour.

## CIMAP transfers technology for herbal products

Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow, India transferred 5 technologies of herbal formulation to Nandan Impex Private Limited (NIPL), Mumbai. These products are Relaxomap, Painzaa, Pain Chhoo, Flomop, and Acne Preventive Facewash.

## Outdoor Air Purifier Prototype

Central Mechanical Engineering Research Institute (CMERI), Durgapur, India developed outdoor air purifier prototype, which can be integrated with solar street light in the traffic areas. The air purifier is able to remove PM 2.5, PM10, VOCs, CO2, odors from the ambient air effectively.

## Decline of Dholavira

Researchers from IIT Kharagpur et al have connected the decline of Harappan city, Dholavira, with the disappearance of Himalayan snow-fed river like Saraswati and climate shifts.

## Electrokinetic Streaming Potential

IIT Guwahati, India researchers employed the nanoscale phenomenon called "Electrokinetic streaming potential" to harvest energy from flowing water on the small length scale like water flowing through household water taps. The humble efficiency of this kind of energy generating devices is attributed to the trade-off between high flow-rate and nanofluidic confinement.

## 107th National Science Congress

107th Indian Science Congress (ISC) is being held from January 3-7, 2020 at the University of Agricultural Sciences in Bengaluru, Karnataka. The theme for this year's Science Congress is 'Science and Technology: Rural Development'. The Congress was inaugurated by Prime Minister Shri Narendra Modi. PM said that four interrelated processes - innovate, patent, produce and prosper - would lead to faster development. PM Modi also asked scientists and innovators for solutions to the most pressing problems facing India and the world, including: Better management of water resources; Finding alternatives to plastic; Extraction of resources from e-waste; Reuse of kitchen and farm waste; Better energy storage in batteries; Innovation in health care and medical devices; Sustainable energy; and Transportation infrastructure.

## National Metrology Conclave and 6th National Conference On "Advances In Metrology" AdMet - 2020

The National Metrology Conclave and 6th National Conference On "Advances In Metrology" AdMet – 2020 is being held on 4-6 January in National Physical Laboratory in New Delhi, India. It is organized by the Metrology Society of India. The main objective of AdMet series is to provide a healthy platform for metrologists, technocrats, researchers and students of various NMI's, laboratories & institutions to participate and share their knowledge & experience, identify thrust R&D areas and foster collaborations with the fellow scientists from all over the world.

## Special Update: National Sugar Institute, India

National Sugar Institute, Kanpur, India carries out original research of significance and technology development at the cutting edge. It imparts training for students to make them competent, motivated engineers and scientists. The Institute not only celebrates freedom of thought, cultivates vision and encourages growth, but also inculcates human values and concern for the environment and the society.

The Institute awards Certificate, Masters and Doctoral degrees in various branches of technology and science. It has been making special efforts to recruit talented faculty on a world-wide basis and to admit bright students from all over the country by an online selection process. The Institute has one of the finest scientific & technological staff with an information retrieval system over the campus. The main functions of the Institute are as follows:-

- (1) To provide technical education and training in all branches of sugar chemistry, sugar technology, sugar engineering and allied fields.
- (2) To undertake research on:- (a) Problems pertaining to sugar technology, sugar and sugarcane chemistry and sugar engineering in general and those of sugar factories in particular; (b) Utilization of by-products of sugar industry.
- (3) To give technical advice and assistance to sugar factories with a view to improving their efficiency and to assist and guide them in their day-to-day problems. Assistance is also provided to Central and state Governments in matters relating to sugar and allied industries.

Further details can be found at: <http://nsi.gov.in/index.html>