CSIR IN MEDIA

CSIR

NEWS BULLETIN
11 TO 15 SEPTEMBER 2020

NHPC in pact with CSIO for R&D collaboration

CSIR –CSIO

15th September, 2020

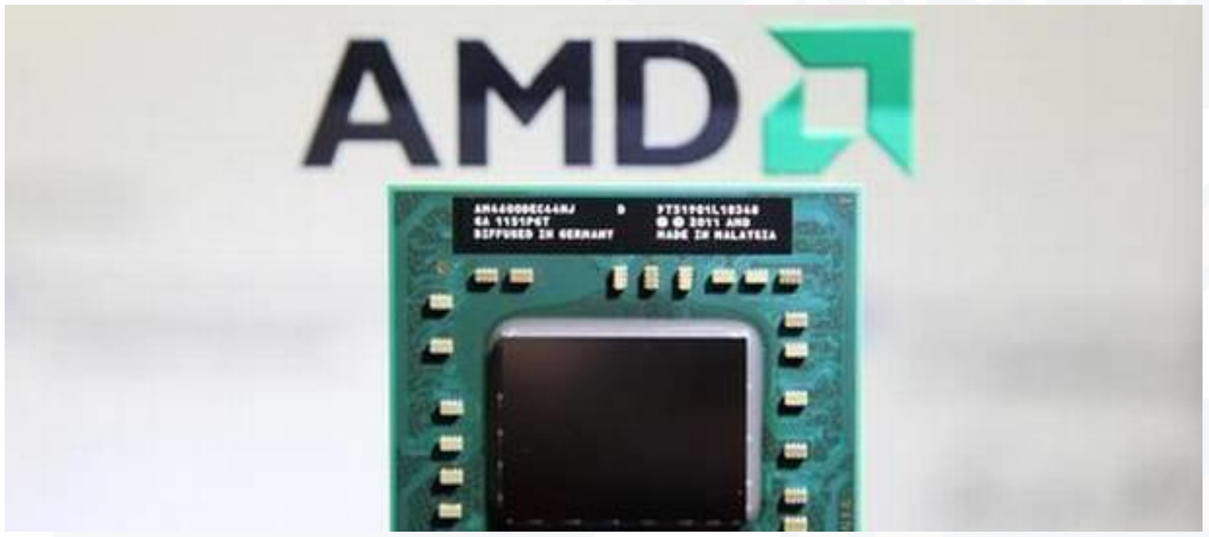
NHPC has signed a memorandum of agreement (MoA) with CSIR-CSIO, Chandigarh, for R&D collaboration. It was signed by RR Yadav, GM (In charge), R&D Division, NHPC, and Dr Surender S. Saini, senior principal scientist & Head (BDPM), CSIR-CSIO Chandigarh, in the presence of YK Chaubey, Director (Technical), NHPC, and Prof SA Ramakrishna, director, CSIR-CSIO through video conferencing. The agreement details the terms and conditions, modalities for providing research, development and consultancy services by CSIR-CSIO Chandigarh in its areas of expertise to NHPC as mutually agreed.

Published in:
The Tribune

CSIR institute gets AMD computing support for Covid-19 research

CSIR –4PI

14th September, 2020



CSIR Fourth Paradigm Institute, a Council of Scientific and Industrial Research body based in Bengaluru, will get high-performance technology contributions from the chip-maker AMD as part of the fight against the Covid-19 pandemic. The CSIR FPI is among several global institutes, including Stanford School of Medicine, to get this assistance from AMD. Early this year, the Nasdaq-listed US firm announced high-performing computing assistance to global research organisations in their quest to build solutions to defeat the pandemic. AMD is now contributing high-end computing systems or access to Penguin-On-Demand (POD) cloud-based clusters powered by second generation AMD EPYC and AMD Radeon Instinct processors to 21 institutions and research facilities conducting Covid-19 research. "We welcome AMD's decision to donate a supercomputing system dedicated to Covid-19 research in India that will be hosted and managed at CSIR Fourth Paradigm Institute in Bengaluru. This will augment our capacity as the leading research and development organisation in the country to provide world class high performance computational facilities to the research community," Shekhar Mande, Director-General of CSIR, said. "This centralised HPC facility will offer secure computational access to researchers and academicians working to tackle Covid-related challenges," Vidyadhar Mudkavi, Head of CSIR-4PI, said. "It will accelerate the work being done by scientists in India across varied disciplines including biological sciences for vaccine discovery, chemical sciences for drug testing, and engineering to provide effective time bound solutions," he said.

Published in:
Business Line

IIT-ISM Prof develops machine to help cure of Parkinson's disease

CSIR –IICB

13th September, 2020

Treating patients of Parkinson's disease fully may be possible in future . Recently, professor of IIT (ISM) Dhanbad in cooperation with the CSIR-Indian Institute of Chemical Biology (IICB), Kolkata and their team found a solution to this disease. The leader of the IIT (ISM) team Dr UmakantaTripathy, who is a physicist, studies nonlinear behaviour of biomaterials using Z-scan technique by developing a machine for detection of Parkinson's disease.
Tests are on with help of CSIR- IICB, said Dr Tripathi.

The IICB team that conducted tests is led by Dr. Krishnananda Chattopadhyay, a biophysicist. Giving details Dr Tripathi said ,the tool can be used to screen blood plasma to find the aggregated toxic species of the protein, Alpha-Synuclein, for a possible diagnosis of Parkinson's disease. The Alpha-Synuclein protein is also present in human blood. Besides, this tool can also be used for drug screening to find a suitable candidate to cure Parkinson's disease.

DrTripathy said, accumulation of an inherent disordered proteins Alpha- synuclein aggregates in brain tissue that plays a pivotal role in the pathology and etiology of Parkinson's Disease. Aggregation of Alpha-synuclein has been found to be complex and heterogeneous. Because of the inherent complexity and large dynamic range (between a few microseconds to several days), it is difficult for the conventional biophysical and biochemical techniques to sample the entire time window of Alpha-synuclein aggregation.

Here, for the first time, we have introduced the Z-scan technique (developed in the laboratory of IIT- -ISM as a novel tool to investigate different conformations formed in the aggregation kinetics of Alpha-synuclein, said DrTripathy.

A switch in the sign of the refractive nonlinearity has been observed for the first time as a signature of the late oligomeric conformation, a prime suspect that triggers neuronal cell death associated with Parkinson's Disease, and a device, which monitors this conveniently can be really useful for both pharmaceutical as well as clinical research, he said . In the near future the drug that can inhibit the aggregation process of the Alpha-Synuclein protein from preventing the formation of the toxic species can be easily identified through the newly developed device, he said..

The team is excited about the observation because the late oligomers are supposed to be the most toxic species of ASyn and a method - which monitors these conveniently - can be really useful for both pharmaceutical and clinical research. Dr. Chattopadhyay said, " my team at CSIR-IICB are exploring ways to use the Z-scan method to study ASyn aggregates ex vivo using a suitable animal Parkinson's disease model, while Dr. Tripathy and his team has planned to extend this method to other proteins and peptides to detect structures or conformations by systematic monitoring of their nonlinear values".

Published in:
The Pioneer

Water recycling is need of the hour: Experts

CSIR–NEERI

13th September, 2020

In the final day of the virtual panel discussion hosted by the National Environmental Engineering Research Institute (NEERI) and Council of Scientific and Industrial Research (CSIR) in association with a city non profit body 'Mumbai First', panelists stated the recycled water plan of the BrihanMumbai Municipal Corporation (BMC) can outline the framework of reusing tertiary treated water in a phased manner. "Long distance water sourcing and pumping is proving inefficient with huge power demand and water loss in the supply process," stated Rudresh Sugam, national technical advisor, sustainable urban development, Smart Cities project.

Dr YB Sontakke, joint director, Maharashtra Pollution Control Board, highlighted the importance of environment monitoring and public awareness regarding the conservation of natural water bodies. "An approximate waste of 5,558 million litres (MLD) is generated in the water bodies of Maharashtra per day. This is a matter of concern and more awareness is necessary," Sonatakke stated.

Professor Sanjiv Sambandan, in his presentation, highlighted that the issue of waste water is not only an issue of water crisis, but also an issue of energy crisis. "An alternate pathway to wastewater treatment is social engineering, which includes providing an incentive for treating wastewater locally," Sambandan explained. "The current estimated water deficit is 700 MLD for domestic use and gross water deficit is 790 MLD. This will continue to rise if we don't push the reuse water potential in the Mumbai Metropolitan Region (MMR)," asserted Anil Kumar, managing director, Water India Royal Haskoning DHV Consulting Private Limited.

He also pointed out that the infrastructure cost of fresh water is Rs 20 crore to Rs 30 crore MLD from source distribution, which for reuse water is only Rs 2 crore to Rs 3 crore.

Fredrick Royan, vice president, sustainability and circular economy, in his presentation, stated that the digital transformation of water utility is crucial to enhance resilience for better financing and the long term sustainability of operations.

Published in:
Free Press Journal

Genetically mutated coronavirus, with ability to widespread, detected in Kerala

CSIR–IGIB

13th September, 2020

Thiruvananthapuram: A study conducted on coronavirus showed that the virus spreading in the state has been genetically mutated and has greater ability to spread widely. The study was conducted mutually by Kozhikode govt medical college and CSIR-Institute of Genomics and Integrative Biology (IGIB) in Delhi. CSIR subjected around 170 samples from nearby districts sent to Kozhikode medical college for genome sequencing. The study also found that while Kerala effectively checked the spread of coronavirus from the foreign returnees with testing, tracking and quarantine, the same was not successfully implemented in case of other state returnees. Most of the virus spread occurred from inter-state travellers. Among the samples subjected to study, the 'D614G' strain of novel coronavirus mutation, which is considered ten times more infectious, was detected. Dr Chandini Radhakrishnan, chief researcher and emergency medicine section, head at Kozhikode medical college, said that the study shows the need for high caution and stricter restrictions to check the virus spread. The research study included the participation of Kozhikode medical college principal, 14 doctors and researchers of the institution. The study was headed by Dr Vinod Scaria of CSIR. Others included in the research group were doctors VR Rajendran, J Binaphilomina, Prasath Vishwanathan, Priyanaka R Nair, NJ Thulaseedharan, Kalpna George, Sheela Mathew, P Jayesh Kumar, KG Sajithkumar, VK Shameer, Vineeth Gladson, Mithun Mohan and CP Firoz

Published in:
Mathrubhumi

Bhopal: A toxic tragedy continues [PART II]

CSIR–NGRI

12th September, 2020

It is of utmost concern that the defunct pesticide plant of Union Carbide India Ltd (UCIL) in Bhopal is being allowed to contaminate surrounding areas with toxic substances. There is now enough evidence and data to establish the scale and extent of the health-damage being perpetrated by the manufacturing facility that was shut down following the 1984 gas leak, which claimed thousands of lives. In fact, the government must treat the pleas of various social organisations, health experts and environmentalists as an SOS call from the population residing in areas adjoining the plant to urgently decommission it. While the preliminary Greenpeace report in 1999 gave an overview of the problem, more focused studies have been carried out by the Delhi-based voluntary organisation Srishti and the Peoples' Science Institute (PSI), Dehradun. The objective of the Srishti study, commissioned by the 'Fact-Finding Mission on Bhopal', was to examine the movement of chemical pollutants from one level to another through the food chain. As part of the survey, samples of soil and groundwater from near the UCIL factory were collected in 1999-2000 and analysed at the Facility of Ecological and Analytical Testing (FEAT) laboratory of IIT, Kanpur. The report of the study conducted by Srishti, *Surviving Bhopal: Toxic Present-Toxic Future*, was released in January 2002. It successfully recorded the movement of chemicals — used extensively in the UCIL factory — in the environment from one medium to another. It also revealed the bioaccumulation of toxicants from one level to another of the food chain. The results showed glaring evidence of contamination near the factory. Soil, groundwater, vegetables grown in the area, and even human breast milk investigated were found to be contaminated

with toxic chemicals and heavy metals. The Report noted: *"Another very significant aspect is that the human breast milk showed maximum concentration for VOCs [volatile organic compounds] and higher concentration of the pesticide HCH [hexachlorocyclohexane also known as benzene hexachloride or BHC]. It is evident that these carcinogenic toxics are bio-concentrated in the milk. Hence this poses a serious concern to infants, as it is the easiest and shortest route of exposure to a number of these suspected carcinogenic chemicals."* The study clearly indicated that the UCIL factory is the source of the chemical contamination since most of the chemicals used in the factory are still present in the factory and its adjoining areas. Further, there are no other chemical industries that use the chemicals mentioned in the inventory within a 3-5 km radius from the factory. The Srishti study also made the pertinent observation that "exposure to chemical pollutants and heavy metals show multiple effects that include fever, diarrhoea, respiratory and nervous disorders and cancer."

The PSI Study

The study undertaken between September 2001 and April 2002 for the Bhopal Gas Peedith Mahila Udyog Sanghathan (BGPMUS) by PSI, Dehradun, was to analyse the concentration of Mercury in groundwater near the former UCIL plant. Groundwater samples were collected from seven hand-pumps and seven tube-wells in residential areas. Samples were also collected from the Solar Evaporation Ponds in the factory and an open well. The samples were analysed at the PSI laboratory. The PSI study confirmed the presence of toxic levels of Mercury in the samples. Exposure to high levels of Mercury can cause permanent damage to the brain and kidneys. Drawing upon the conclusions arrived by the Agency for Toxic Substances and Disease Registry of the United States Public Health System, the PSI study stated that: "Mercury may affect many different areas in the brain and their associated functions, resulting in a variety of symptoms. These include personality changes (irritability, shyness, nervousness), tremors, changes in vision (constriction or narrowing of the visual field), deafness, muscle incoordination, loss of sensation, and difficulties with memory." The PSI study rightly concluded that: "The present situation in Bhopal results from a classical combination of corporate irresponsibility and governmental indifference.

The problem of groundwater contamination at Bhopal compounds the miseries of the population already affected permanently due to the exposure to toxic MIC (methyl isocyanate) gas (in 1984)."

Legal Proceedings in the United States

Both Srishti and PSI were in broad agreement with the remedial plan suggested in the earlier study by Greenpeace. In this context, it must be pointed out that the organisations representing the victims maintain the view that the financial responsibility for any clean-up operation must be borne exclusively by the UCC and its current owners, Dow Chemicals, USA. A civil suit for fixing financial responsibility was filed before the New York Southern District Court on November 15, 1999, by the victims' organisations with the aid of groups supporting the cause of the Bhopal victims in the US. Both UCC (Union Carbide Corporation) USA, and Warren Anderson (Chairperson and CEO of UCC at the time of the Bhopal Gas Tragedy) were served notice and compelled to appear in court as respondents. In the process, UCC had to submit documents that shed light on major decisions regarding the dumping of toxic waste at UCI's Bhopal plant. While the District Court dismissed the petition in August 2000, the United States Court of Appeals for the Second Circuit returned the case to the District Court on November 15, 2001, directing it to consider the case afresh. However, on March 18, 2003, the New York Southern District Court dismissed the amended petition yet again forcing the victims' groups to go in for another appeal. Thankfully, in its March 24, 2004, order, the Appeals Court noted: "…the District Court should be free to revisit its dismissal of the claim for plant-site remediation in the event that the Indian government or the State of Madhya Pradesh seeks to intervene in the action or otherwise urges the court to order such relief." After pressure was exerted on the Madhya Pradesh government and the Central government, the former informed the Government of India on June 7, 2004 that it had no objection to the clean-up and site remediation. The Central government agreed to submit a "no objection" letter to the New York District Court, which it did on June 27, 2004. However, the matter did not make much progress as the U.S. Courts of Appeals finally dismissed the petition on August 10, 2006.

A fresh petition was filed in the name of Janki Bai Sahu, a survivor of the 1984 tragedy, which too was dismissed in June 2012. Subsequently, the US Courts of Appeals also dismissed the appeal against the District Court's order. A separate petition filed in the name of Jagarnath Sahu was also dismissed on 24 May 2016. Meanwhile, a writ petition (WP No.2802 of 2004) was filed before the Madhya Pradesh High Court in Jabalpur on July 23, 2004 to expedite the clean-up of the contaminated site in Bhopal. Three organisations –Bhopal Gas Peedith Sangharsh Sahayog Samiti (BGPSSS), the Bhopal Group for Information and Action (BGIA) and the Bhopal Gas Peedith Mahila Udyog Sanghathan (BGPMUS) — were interveners in the matter. Subsequently, the Union of India filed a curative petition (No.345-347 of 2010) before the Supreme Court against the Bhopal Settlement Order of February 1989. The petition included a claim for compensation from Dow Inc to remediate the contaminated site in Bhopal.

Further Evidence

While matters were embroiled in various courts, new studies further confirmed the threat posed by the UCIL plant in Bhopal. In addition to its earlier study, Greenpeace carried out another in 2002. Its findings had this revelation: *"Local populations are vulnerable to exposure to all the chemicals found in this study through routes such as direct contact with contaminated soil or inhalation of contaminated dust. The HCH [hexachlorocyclohexane] and other organochlorines may moreover be passed on in the milk of cattle that the locals graze on the site. Many local residents are already suffering the after-effects of exposure to the gas release…Further chemical exposure from the SEPs and the stockpiles is unacceptable."* In addition, the National Environmental Engineering Research Institute (NEERI), Nagpur, and the National Geophysical Research Institute (NGRI), Hyderabad, carried out a joint study in 2010. The preliminary findings of the study showed that "The total volume of contaminated soil (within and outside UCIL premises) is estimated to be 6,50,000 m. Assuming a bulk density of 1.7 gm/cc of soil, the total quantum of contaminated soil requiring remediation amounts to 11,00,000 MT." The NEERI/NGRI report highlighted the magnitude of soil contamination. This prompted the Chairman of the Bhopal Environmental Remediation Oversight Committee and the Minister of State, Ministry of Environment and Forests, to invite comments from the Bhopal survivors' organisations.

On July 9, 2010, a critical review of the NEERI/NGRI reports was prepared and submitted to the Government. It had the following key recommendations:

- Detailed study and cataloging of all substances used on-site, plus consideration of likely breakdown products of primary contaminants.

- Development of a conceptual site model and a formal sampling and analysis plan, including provision for leachate testing and any other tests that may help inform the remediation method choice.

- Correct presentation of analytical results and release of all raw data.

- Detailed health and safety plan for investigation and decommissioning of the plant.

- Site investigation to consider the full shallow and deep soil horizon, with guidance drawn from the conceptual site model.

- Site investigation to include an element of 'grid' investigation (it is not unusual for investigations of this nature to be based on a 25m or 50m grid).

- Dedicated monitoring wells to be designed and drilled solely for the purpose of investigating the groundwater body (or bodies) inside and outside the facility.

- Calibration of conceptual site model following site investigation.
- Risk-based derivation of remedial targets.

- Remediation options appraisal (considering all potentially successful remediation methods) and trials as necessary.

Unfortunately, for the last ten years, there has been no further progress other than the holding of a preliminary workshop in Delhi on April 25-26, 2013 hosted by the Centre for Environment & Science (CSE) in which most stakeholders (except the Madhya Pradesh government) participated for working out an action plan for remediating the contaminated site at Bhopal. Fresh attempts are being made to prevail upon the Union Ministry of Chemicals and Fertilisers as well as the Prime Minister's Office to take immediate steps to convene a meeting of all stakeholders. It must include the governments at the Centre and Madhya Pradesh state, the United Nations Environment Programme, international and Indian scientific organisations, representatives of the chemical industry and concerned voluntary organisations. An action plan has to be urgently chalked out to remediate the contaminated site in and around the UCIL plant in a time-bound manner.

Published in:
The Leaflet

CSIR-CDRI carrying out a research study that involves testing of people for antibodies against SARS-CoV-2

CSIR–CDRI

12th September, 2020

CSIR-CDRI (Central Drug Research Institute) is carrying out a research study that involves testing of people for antibodies against SARS-CoV-2. The serological testing is conducted from September 9 to 11. For the past 7 months we are in the midst of a pandemic of coronavirus (COVID-19) infection with more than 45 lakh individuals being infected with the virus which has resulted in more than 76,270 deaths in India, an official said. Dr. Susanta Kar and Dr. Amit Lahiri, the nodal scientists from CSIR-CDRI, said that the diagnostic tests performed in India have been largely limited to people showing symptoms and those who have come in close contact with these individuals. Most importantly, community testing has not been initiated yet. From the reports available from various countries it can be perceived that there are many more asymptomatic cases who have not been tested. Thus, the burden of the disease could be larger. Dr. Kar and Dr. Lahiri also stated that, a person infected with the disease will generate antibodies which is expected to protect them for further infection. However, since this is a novel virus, the duration of protection from antibodies is not known. It is therefore important to perform a long-term pan-India surveillance using serology-based assays to not only estimate the burden of the infection, but also assess thetitres of the antibodies by collecting samples at fixed intervals. This will also help us to identify people who can also donate their plasma to the terminally ill COVID patients. Prof. Tapas K Kundu, The Director CSIR-CDRI, said that the establishment of such a cohort with longitudinal biological sampling will also align with the framework of the National Health Mission and will facilitate the development of

national reference standards to aid clinical decision making as well as national healthcare policy decisions. It will also help address several unanswered questions on the infection caused by novel Corona virus. The test is Voluntary and free of cost and is open to all CSIR staff and students. Blood samples will be collected from those who are willing to participate in the CDRI dispensary under the supervision of resident doctors Dr. Shalini Gupta and Dr. Vivek Bhosale. The presence or absence of anti-SARS-CoV2 antibody titers in CSIR staff and students will then be assessed using ELISA based assay at CSIR-IGIB, New Delhi. Other biochemical parameters also will be measured to ascertain correlation between Cardio-metabolic risk factors and the possibility of recurrent infection. This project will align well with the CSIR's Indigenous program "Phenome India - A long-term longitudinal observational cohort study of health outcomes"

Published in:
United News of India

CSIR-CSIO

12th September, 2020

126 pupils get diploma

TRIBUNE NEWS SERVICE

CHANDIGARH, SEPTEMBER 11

The Indo-Swiss Training Centre (ISTC) here hosted its 55th convocation online.

Prof Dheeraj Sanghi, Director, Punjab Engineering College, Chandigarh, was the chief guest.

He advised the students to embrace excellence and do their best in the chosen field. He said they should be quality conscious.

He also encouraged them to be honest and ethical.

Prof SA Ramakrishna, Director, Central Scientific Instruments Organisation, distributed diplomas among students. Addressing the students, he said they had an immense responsibility as their actions would impact the pride and prestige of the institution.

A total of 126 students, including 19 four-year advanced diploma courses, received their diplomas.

Published in:
The Tribune

CSIR-CSIO

12th September, 2020

55वां दीक्षांत समारोह: इंडो स्विस प्रशिक्षण केंद्र में छात्रों को ऑनलाइन दिए गए प्रमाणपत्र, 150 छात्र इस कार्यक्रम के सीधे प्रसारण से जुड़े रहे, कहा-

अपने घर या जहां पर भी हैं, अभिभावकों के लिए बजाएं तालियां जिन्होंने इस मुकाम तक पहुंचाया

- प्राचार्य ने वितरित किए प्रमाणपत्र, डायरेक्टर ने लिए
- चीफ गेस्ट ने सभी मेडलों के साथ खिंचाई तस्वीर

ननु प्रीति सिंह | चंडीगढ़

यह मौका बहुत खास है और आप कहीं न कहीं से मुझे देख रहे हैं। यह करीब 500 की कैपेसिटी वाला हॉल जिसमें इस सुनहरे मौके के लिए आपके साथ आपके पैरेंट्स भी होते तो मैं आपको खड़ा करता हूं उनके लिए तालियां बजाने के लिए, लेकिन अब इस समय आप जहां पर भी हैं उनके लिए तालियां बजाइए।

शहर की पहली वर्चुअल कन्वोकेशन के दौरान यह शब्द थे पंजाब इंजीनियरिंग कॉलेज डीम्ड टू बे यूनिवर्सिटी (पैक) के डायरेक्टर प्रो धीरज सांघी के। सीएसआइआर सीएमआईओ स्थित इंडो स्विस ट्रेनिंग सेंटर में 58 वीं कन्वोकेशन ऑनलाइन कराई गई। इसका सीधा प्रसारण उन्होंने अपनी वेबसाइट और अपने सोशल मीडिया पर जिस पर किया था, जिसमें लगभग डेढ़ सौ स्टूडेंट शुरू में जुड़े रहे। डिग्री वितरित होने के बाद 91 लोग ही ऑनलाइन थे। स्विट्जरलैंड गवर्नमेंट के सहयोग से शुरू किए गए इन 4 साल के डिप्लोमा कोर्सेज यह सर्टिफिकेट हर साल कन्वोकेशन के जरिए ही दिए जाते हैं। प्रो सांघी ने कहा कि इस महामारी को एक मौके के तौर पर लें और जीवन में हमेशा एक्सीलेंस पर ध्यान दें। उन्होंने इसके लिए अपने निजी अनुभव भी बताए।

जून-जुलाई में इस सेंटर के फाइनल सेमेस्टर का रिजल्ट आ जाता है और आमतौर पर अगस्त में कन्वोकेशन हो जाती है। लेकिन इस बार ऐसा संभव नहीं था। कोविड-19 के हालात के सुधरने की संभावना फिलहाल नहीं लग रही इसलिए ऑनलाइन कन्वोकेशन का डिसीजन किया गया। इस कन्वोकेशन से पहले स्टूडेंट की सहमति जरूरी थी इसलिए सभी डिपार्टमेंट बाय सोशल मीडिया ग्रुप से पहले स्टूडेंट्स की कंसेंट ली गई।

कोई दूसरा विकल्प ना देखकर तुरंत ने भी हामी भर दी और उसके बाद शुरू हुआ तैयारियों का दौर। सभी स्टूडेंट्स की लेटेस्ट तस्वीरें मंगवाई गई ताकि जीवन के सबसे महत्वपूर्ण पल में उनको यह ना लगे कि वह 3 साल पुरानी सूरत के साथ हैं या यह तस्वीर उनकी पसंद की नहीं है फोन मिला इसके बाद ऑटोमेटिक रोलिंग स्क्रीन पर इनको तैयार किया गया। कोरोनावायरस से सुरक्षा को देखते हुए इंस्टीट्यूट के टीचर भी हॉल के अंदर कम से कम 4 गज की दूरी पर बैठे हुए थे।

डॉ नरेंद्र सिंह जस्सल ने सेंटर की वार्षिक रिपोर्ट पढ़ी। इसके बाद सीएसआईओ के डायरेक्टर प्रो अनंत रामकृष्णन ने सभी के सर्टिफिकेट रिसीव किए। पैक डायरेक्टर प्रो सांघी उन्होंने प्रिंसिपल से मेडल रिसीव किए और फोटो खिंचवा कर सर्टिफिकेट के साथ वापस रख दिए गए। इसके बाद सभी सेमेस्टर के फर्स्ट और सेकंड देने वाले स्टूडेंट को भी सम्मानित किया गया। स्टूडेंट्स की तस्वीर उनके नाम और पूरी जानकारी के साथ स्क्रीन पर चलती रही। कन्वोकेशन कंडक्ट कराने की जिम्मेदारी नहीं रजिस्ट्रार संगीता गर्ग पर।

• कुल 126 को दिए गए प्रमाणपत्र...कुल 126 स्टूडेंट्स को सर्टिफिकेट दिए गए जिसमें 10 स्टूडेंट 4 ईयर एडवांस डिप्लोमा इन डाई एंड मोल्ड मेकिंग कोर्स 9 स्टूडेंट 4 ईयर एडवांस डिप्लोमा इन मेकाट्रॉनिक्स एंड इंडस्ट्रियल ऑटोमेशन, 46 स्टूडेंट 3 ईयर डिप्लोमा इन मैकेनिकल इंजीनियरिंग टूल एंड डाई, 45 टूडेंट 3 ईयर डिप्लोमा इन इलेक्ट्रॉनिक्स इंजीनियरिंग, 7 स्टूडेंट 1 ईयर पोस्ट ग्रेजुएट डिप्लोमा इन कैड कैम और 9 स्टूडेंट 1 ईयर पोस्ट ग्रेजुएट डिप्लोमा इन मेकाट्रॉनिक्स से थे।

• यह रहे अव्वल...गुरमीत सिंह, हरप्रीत सिंह, भव्यम कपूर, के संजू देवी को गोल्ड मेडल दिए गए हैं जबकि संदीप सिंह, विशाल कुमार , मेजर सिंह को सिल्वर मेडल दिए गए। इलेक्ट्रॉनिक्स में गोल्ड मेडल पाने वाली एम संजू देवी कहती हैं कि यह बहुत खास मौका था लेकिन महामारी के कारण वर्चुअल कन्वोकेशन मजबूरी थी। उनके साथ साथ उनका पूरा परिवार ऑनलाइन इससे जुड़ा हुआ था।

• डिग्री मिलती रही और चलता रहा बधाई व शरारती कमेंट्स का दौर...जिस समय वर्चुअल कन्वोकेशन चल रही थी, उस समय अवार्ड और मेडल पाने वालों को तो बधाई दी ही जा रही थी, साथ ही में शरारती कमेंट्स भी चल रहे हैं। कोई पूछ रहा था कि भई तालियां कौन बजा रहा है, आगे से जवाब मिला कि शायद मैस वर्कर इसी के लिए बुलाए हों। कोई अपनी टीचर को क्रश कह रहा था तो अपडेट मांग रहा था कि सभी कहां पर हैं। शुरू में 149 लोग थे, डिग्री मिलने के बाद 121 हुए और धीमे-धीमे ये संख्या 91 तक रह गई जो आखिरी तक जुड़े रहे।

पहले दो मिनट तो मुझे बहुत अजीब लगा क्योंकि कॉन्फीडेंस जुटाना ही मुश्किल था। खाली हॉल को संबोधित करना शायद एक ऑनलाइन मीटिंग को अटेंड करने से भी बदतर था। लेकिन फिर लगा कि जो संदेश देने आया हूं, वह कह देना है। स्टूडेंट्स और पेरेंट्स के लिए ये बहुत बड़ा मौका रहता है। **प्रो. धीरज सांघी, डायरेक्टर पैक व चीफ गेस्ट**

1966 बैच में पहली कनवोकेशन हुई थी। हम हमेशा सेमेस्टर के आखिरी दिन में सभी सर्टिफिकेट स्टूडेंट्स को दे देते हैं और ये काम जून के आखिरी सप्ताह में हो जाना चाहिए। लेकिन इस बार ऐसा नहीं हो सका। 70 फीसदी प्लेस हो चुके हैं और सौ फीसदी हो जाएंगे क्योंकि कुछ कंपनियों का रिजल्ट बकाया है। उनका भी दबाव था इसलिए यही एक विकल्प था। हमने पेपर भी ऑनलाइन लिए थे।

डॉ.नरिंदर जस्सल, प्रिंसिपल, आईएसटीसी

मैंने स्टूडेंट्स को बहुत ज्यादा मिस किया। जब आप स्टेज पर होते हैं तो सामने वाले की आंखों में देख कर बोलते हैं लेकिन यहां पर लगभग खाली हॉल था। सिर्फ फैकल्टी ही नजर आई। ये स्टूडेंट्स का गोल्डन टाइम था जिसे वह भी मिस कर रहे होंगे।

प्रो. अनंत रामाकृष्णन, डायरेक्टर, सीएसआईओ

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Chemical levels in cigarette, beedi butts 'not toxic to humans, environment' , says CSIR-IITR study

CSIR–IITR

10th September, 2020

Cigarette butts are the most common type of litter on earth, with an estimated 4.5 trillion of them discarded annually around the globe. Most of the cigarette butts are discarded in dustbins, roadside, beaches or other public places, posing a major threat to living organisms and ecosystem health. Some studies suggest cigarette butts are toxic to microbes, insects, and fish etc. In April last year, the National Green Tribunal (NGT) directed the Ministry of Environment and Forests (MoEF) to get a study conducted as to whether cigarette and beedi butts fall within the category of "toxic waste". A Memorandum of Understanding was signed in October last year between the Central Pollution Control Board (CPCB) and CSIR-Indian Institute of Toxicology Research to analyse chemical and elemental composition of various brands of cigarettes and beedi butts (both burnt and unburnt) and to see if they meet the required parameters. Burnt and unburnt butts of 10 cigarette brands and beedi brands were used in the study, according to CSIR-IITR. Except endosulfan (in one brand), the levels of chemicals listed in class 'A' of schedule II 2016, including arsenic, cadmium, lead, mercury, chromium, and cobalt, "were either below the level of detection or many fold lower than the threshold value", the IITR report said. The levels of chemicals listed in class 'C' of Schedule-II 2016, including anthracene, phenanthrene and amines, were also lower than the prescribed limits under experimental conditions with limited sample size, it said. It, however, said that "data is not available" on cellulose acetate mediated human health risk assessment and toxic responses, and response on microflora in the soil. Cellulose acetate is a major component (95 per cent) of cigarette butts along with the wrapping paper and rayon.

The degradation studies carried out on cigarette butts have shown only 37.8 per cent degradation in two years in the soil under ambient conditions; hence it will persist in soil for a longer duration, the IITR said. “The degradation studies under natural environmental conditions and laboratory simulating conditions will be required to conclude the safety/toxicity of cigarette butts to further correlate with human and environmental health risk assessment,” it said. The research institute suggested recycling of cellulose acetate aer recovery from cigarette butts as an immediate solution to the problem until the degradation and safety data are generated. The NGT had earlier issued notices to the MoEF, Ministry of Health and Family Welfare and CPCB on a plea filed by a doctors' body seeking prohibition on consumption of tobacco in all public places and proper disposal of related waste. Doctors for You, an NGO working towards cancer care, had moved the tribunal, asking that the Centre be directed to declare cigarette and beedi butts "toxic waste". It had claimed that tobacco was causing major health problems and its "cultivation processing, production and disposal was harming the ecology badly".

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