

# ALL ARE ‘VIRTUAL’

Now COVID-19 Pandemic Proves Technology Can’t Stop Rhythm of Mankind



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In this era of the Internet, everything happens virtually. Our lives are literally revolved around technology and technical devices. Virtual reality is a human computer interface that functions with clients using different physical sensations (e.g., visual, haptic, hear-able) to build authenticity in the virtual world. Virtual reality is utilized in (i) Businesses, specially in the representation of graphs and charts, (ii) Industries like the automotive industry's manufacturing arm, (iii) military for simulations and training, (iv) Medical field for treatments of various ailments and disorders, and (v) Education, specifically in laboratories, online education and virtual museums. During COVID-19 pandemic, which is an extraordinary global situation, all countries are using innovative virtual reality technologies for fast-tracking the development to deal with this threat. The application areas and the ways for implementing those

are highlighted below:  
**Virtual Office Work Culture:**  
In this pandemic situation, a virtual work system has been already implemented for all types of official work from the government sector to the private sector. The virtual world likewise gives chances to various public sectors so as to upgrade its e-government facilities and other related information of public sector. They would build citizen participation between the users of Internet in fact while giving the data of public sector via superior interactive media. Likewise, all private sector works are taking place as work from home. Every employer are doing their work by sitting inside a home during their office hours and if needed extra hours also. Though a vast majority of office work are carried out digitally, but lack of internet speed and fluctuating disturbance of the network may hamper the work and increase the workload for the working people.  
**Virtual Education System:**  
One of the main sufferers of the Covid-19 pandemic and the resultant lockdown has been institutionalised education. Virtual universes also offer an opportunity for the staff to push ahead from an educator focused on a scholarly focused model of guidance. They likewise



become a fantastic open door for teachers to actualize student-focused instructional methods that advance dynamic, constructivist, and request or issue-based teaching methods. The students plays a dynamic role in being continually engaged with the learning cycle through their encounters. Some activities of learning are very tough toexecute in an actual world because of high expenditures and deficiency of infrastructure facility. The impact of COVID-19 pandemic in our education system is high, students from every part of Tripura as well as rural areas of India facing a huge problem. To cope up with situations, educational institutions including schools, colleges, and

universities have progressed to virtual classrooms via video conferencing platforms such as Zoom, Google Hangouts and Microsoft Teams. Also universities and colleges are conducting webinars across the globe for the students so as to enrich and gain knowledge in the respective domains. But there are some still struggling to get online. For this the government is also trying to stay connected with students and provide education via YouTube videos and local TV channels so as to make online classes as engaging as offline ones.  
**Virtual Medical Facility System:**  
Even though virtual medical facility has not been used broadly, it became an instrument area in evolving

and broadcasting protocols for providing health care in the context of COVID-19. The effectiveness of virtual medical facility as a complementary medical/healthcare tool has been extensively studied in the areas such as pain management and psychotherapy. For example, it has been fruitfully used in exposure therapy, during which patients are presented with stuffs they fear, thereby slowly decreasing their fears. With suitable implementation of this approach, medical researchers, doctors, and patients can create a healthier environment to overcome and compete with various diseases especially for taking healthcare to rural areas. As a concluding remark, the idea of virtual reality has

provide a widespread advantage to secure and challenge the current COVID-19 pandemic situation by improving the skill, self-reliance, and overall performance of peoples across the globe. The presented features can provide a significant development in current learning and case handling approaches. The main advantages of virtual reality are: (a) Computer-generated reality gives the differing kinds of information accessible in moment structures; (b) It gives pictures from various purposes of perspectives; (c) It can show the non-obvious information to the client as if there should arise an occurrence of geochemistry; (d) Permits an individual to 'visit' the spots ordinarily blocked off to people; (e) Gives an encounter that can be rehashed and re-examined; (f) It can cover the instruction and information identified with practically all fields of life. Indeed, even kids just as grown-ups can get an advantage from it.

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# Oracle joins hands with NIC, IEEE for virtual hackathon

**New Delhi:** India's National Informatics Centre (NIC) and global technical professional organisation IEEE have joined hands with Cloud major Oracle to organise a virtual hackathon, Gov-TechThon 2020, to incubate new ideas, boost innovation and use technology in agriculture and allied sectors. Gov-TechThon 2020 -- from October 30 to November 1 -- will be facilitated by IEEE Computer Society. The virtual hackathon is open to students, working professionals, startups, freelance technologists, faculty, and IT services firms in India. "The youngsters are an important part of India's digital ecosystem and I look forward to their participation in the hackathon and their solutions to the challenges," Ajay Sawhney, Secretary, Ministry of Electronics and Information Technology, said in a statement.

Shortlisted teams will operate virtually. During the hackathon, they will receive mentorship and advice from domain experts from NIC, IEEE Computer Society, Oracle and experts from the Union Agriculture Ministry, Ministry of Education, and Ministry of Road Transport and Highways. Participating teams will have access to the latest tools from Oracle, including Oracle Autonomous Database, built-in and easy-to-use cloud security, and compute -- to help them develop prototypes that are practical and scalable, the company said. Additionally, they will be able to leverage open source technologies that bring in benefits of high performance, reliability and data security. For Gov-TechThon 2020, NIC has shortlisted five key problem scenarios including Artificial Intelligence-based crop recommendations, Blockchain based seed certification, automated vigilance in exams/tests, automated fitness check process for commercial vehicles and easy document uploads that aims to permit citizens to quickly and efficiently scan and submit necessary documents while availing different government services.

## Voltas launches Maha Adjustable PureAir AC

**Kolkata:** Voltas Limited, the undisputed market leader for Air-Conditioners in India, has been taking proactive measures and initiatives to help the nation fight against the COVID-19 pandemic. The No. 1 AC brand, from the house of the Tata's, has further reinforced its leadership position in the Cooling Products space, by launching the new Voltas PureAir AC, a UV based split inverter AC. The Voltas Maha Adjustable PureAir AC comes with state of the art AC LED system, with peak emission wavelength of 180nm to 280nm, which quickly disinfects the indoor air by killing germs and pathogens like virus and bacteria. Commenting on the launch of this unique range of Air Conditioners, Pradeep Bakshi, Managing Director & CEO, Voltas Limited said, "We, at Voltas, are always listening to the evolving needs of our customers and the launch of the Voltas Maha Adjustable PureAir AC is one such example of our customer centricity in times of a pandemic. Recognized as a pioneer in the Air Conditioning market in India, Voltas has been a front runner in the usage of UVC against viruses. Voltas has also recently launched a new line of Ultraviolet Light (UV) powered offerings for Duct, Air and Surface disinfectant solution.

## India's human space flight may face slight delay: ISRO chief

**Chennai:** India's human space flight mission Gaganyaan will be "slightly delayed" owing to the impact of the Covid-19 pandemic even as ISRO resumes rocket launch activities from the first week of November, space agency chief K. Sivan said on Monday. Answering a query at the plenary session of the International Astronautical Congress 2020, the Indian Space Research Organisation (ISRO) Chairman said India's first human space flight was targeted in August 2022, but owing to Covid-19's impact on the operations, the there will be a slight slip in meeting the mission's target date. Prime Minister Narendra Modi, during his Independence Day speech on August 15, 2018, had said when the nation is celebrating 75th year of Independence in 2022, an Indian son or daughter will be flying into space under the Gaganyaan mission. Sivan said that the Gaganyaan mission has advanced well and the country is taking the help of other space-faring nations like Russia for training the astronauts and some other critical aspects, France in the space medical area and is also approaching US space agency NASA. On resuming rocket launches, he said some missions were delayed as officials were unable to travel to the rocket port from different cities. Sivan said ISRO is planning to launch its Polar Satellite Launch Vehicle C49 (PSLV C49) during the first week of November.

# This IoT-based solution promises better yields sans fertilisers

**New Delhi:** A group of students has developed a farm-friendly Internet of Things (IoT) system that reduces water usage and minimises dependency on fertiliser, an innovation that can help produce greater yields minus fertiliser costs for farmers. The team from Sona College of Technology, Salem, secured first place in the hardware category at the 'Smart India Hackathon 2020' conducted by the Ministry of Agriculture, Cooperation and Farmers' Welfare, for their solution that uses the principles of Internet of Things (IoT) and magnetisation. "Our project aims to help farmers by purifying their

available borewell water significantly, with zero waste," Dr R Malathy, Dean (R&D) and Professor, Department of Civil Engineering who mentored the team said in a statement on Thursday. Of the 343 problem statements released for all participants across 40 nodal centres, solutions from four teams from across India were recognised in the finals. While borewell water is used for almost all farm applications, the nature of such water causes scaling. This, in turn, leads to non-uniform water supply to plants and poor mineral absorption. The limescale deposition also damages soil structure. Such

hard water is absorbed by the plant cells with difficulty. According to the college, if through intervention, the water's minerals are broken down into smaller particles, they become more bioavailable to these plant cells. The solution achieves this by using a designated permanent rare earth magnet. The water is passed through a magnetic field and undergoes electrolysis and magnetisation. "This breaks the larger water clusters into smaller, hexagonal-shaped clusters. Such magnetically treated, hexagonal-structured water molecules not only stop scaling, but also remove existing scaling," the college

explained. The magnetic structuring breaks all minerals into smaller particles, and in the process, the salt in the soil is also broken down. As a result, the salt sinks deep into the soil and can be washed away easily. The desalination happens quickly over a season, creating much healthier plants and greater yields, and a better final product. "With minimal usage of water, the plants were hydrated well, and were able to absorb maximum minerals. This resulted in greater yields, larger and better end product, earlier maturation, longer shelf life, and healthier plants".