IIT-Delhi’s New Tech to Manufacture Nanofibres

The technology has been granted patents in India, the UK and the USA.

Researchers at IIT Delhi have recently announced the development of a technology for industrial-scale production of Nanofibres which is superior to existing commercial technologies in other countries.

Nanofibres, which are 1/1000 thin in diameter in comparison to cotton fibre, are one such material that has found applications in making high-efficiency industrial filters, automobile oil and fuel filters, scaffolds for tissue engineering, highly responsive electronic sensors, protective devices and many more.

The IIT Delhi researchers, led by Ashwini Agrawal and Manjeet Jassal from the Textile and Fibre Engineering Department, were able to solve all the challenges and develop a scalable prototype.

The pilot machine developed at IIT Delhi has been validated in an industrial set-up for producing nanofibres at a commercial scale.
India’s education system is burdened by examination set up, need newer assessment practices: Sisodia


Sisodia said the present examination system is designed to pass or fail children on the basis of marks.

India needs to adopt new innovative assessment practices to revive its education system which reeks under the burden of examinations, Delhi Deputy Chief Minister Manish Sisodia said. He said until the current examination system is changed, the entire education system in the country will remain a “slave” to the three-hour annual examination system.

Sisodia gave the statement while addressing the 13th education conference ‘Educarnival’ organised by IIT Delhi. He said the most pressing reform in the Indian education system is the change in the traditional examination and assessment systems.

“The learning process will remain only a battle to pass the exam. Until the current examination system is changed, the entire education system will remain a slave of the three-hour annual examination. We have progressed with time but still have not been able to move away from rote assessment systems,” he said.

Sisodia said the present examination system is designed to pass or fail children on the basis of marks instead of assessing their learning levels, strengths and weaknesses.

Addressing school leaders and teachers from all over the country, he said, “The education system has collapsed under the burden of examinations and we need to revive it through innovative assessment practices.”
“The children, parents and all stakeholders in the education system are scared of examinations here. To change the examination and assessment system in Delhi, we have set up a new state board- Delhi Board of School Education (DBSE). Along with this, we have started making some unique changes in the system too.” He said. Sisodia further said that DBSE report cards doesn’t mention pass or fail, instead gives subject-specific qualitative remarks.

IIT Delhi offers 500 Ph.D. fellowships as plans for Abu Dhabi campus get underway

Supplementing the ongoing efforts to set up a campus of the Indian Institute of Technology (IIT) in Abu Dhabi, IIT Delhi has announced that it is offering 500 fully-funded Ph.D. fellowships for international students, including eligible students from the Gulf, according to Emirates News Agency (WAM)

This will mean students who graduate from the planned IIT campus in Abu Dhabi will have opportunities to pursue higher studies in India in the same streams and structures as they academically pursue in the UAE.

“The institute is coming up with a new curriculum in 2023,” IIT Delhi announced. The new curriculum will take into account the demands of its proposed overseas campuses.

In addition to the UAE, offshore campuses of IIT are being planned in Sri Lanka, Nepal, Tanzania and Malaysia. IIT Delhi has announced that its former Dean for Academics will be the coordinator for launching the Abu Dhabi campus.

As reported last month, IIT Delhi has identified the Department of Education and Knowledge Abu Dhabi (ADEK) as its partner for setting up its campus in the UAE’s capital city.

This followed the visit of a high-level team from the Indian institute to Abu Dhabi and extensive discussions with ADEK officials and other stakeholders in the project, Subhas Sarkar, the Minister of State for Education, informed the Lok Sabha, the lower House of India’s Parliament.

If present plans go according to schedule, the IIT Delhi’s Abu Dhabi campus will start its operations in 2024. The first batch of students will start their academic session there in September of that year.
way Indian educational institutions will take a step towards becoming global. In fact, the IIT-Delhi campus is being built in Abu Dhabi, the capital of the United Arab Emirates (UAE). This campus will start from September 2024 and the first batch will be studied here.

IIT-Delhi will become the first institute among other IITs in the country to start a campus abroad. However, apart from IIT-Delhi, IIT-Madras and IIT-Kharagpur are also set to set up their campuses abroad. IIT-Madras will start its operations in Sri Lanka, Nepal and Tanzania, while the campus of IIT-Kharagpur will be set up in Malaysia.

**The campus will be launched under the India-UAE trade agreement**

According to an education ministry official, IIT-Delhi is coming up with a new curriculum from the 2023 academic year and it will also be introduced at the UAE campus. In fact, on February 18 this year, under the India-UAE trade agreement, the central government announced the setting up of a campus in the UAE. Since then both the countries have been in touch with each other to set up this campus.

**IIT will benefit from royalty**

Earlier, a central government panel had recommended that if IITs set up their campuses abroad, they would benefit from their own brand name as it would fetch them royalties. Best governance arrangements will be adopted for these institutions. The 17-member panel headed by IIT Council Standing Committee Chairman K Radhakrishnan said, “Foreign campuses should be managed in such a way that while working with IITs, no approval is required from the IITs or the Government of India.

The panel said, “The person setting up the IIT (in India) should also make some profit from the campus abroad. For example, there may be royalty for using the IIT brand. There should be safeguards to preserve the IIT brand for a long time. The IIT brand should not be affected.” Every effort should be made to ensure that either.

**IIT Delhi Placement 2022 records more than 1,300 Job offers, over 10% increase in unique selections**


There has been over a 10 percent increase in the number of unique selections during this period over last year.

With over 1.3K job offers and 260 pre-placement offers from MNCs, IIT Delhi records its highest-ever placement. The Institute reported more than 1,300 job offers to students. On the IIT Delhi campus, this is the highest number of job offers ever. The placement drive will continue till May 2023.

The Institute reported that from December 1 through December 15, there was a 10% increase in the number of unique selections. Over 260 pre-placement offers were made during the past two weeks. Even PPOs were received at the highest level ever this year, according to a statement from IIT Delhi.

Students received over 30 offers from over 15 international organisations in Hong Kong, Japan, the Netherlands, Singapore, South Korea, Taiwan, the United Kingdom, and the United States. These organisations offered over 20 job profiles. Additionally, there are six pre-placement offers from abroad.
In order to hire IIT Delhi students, more than 500 businesses from various industries have registered so far, offering more than 1,000 job profiles. According to campus rules, many students would be qualified to reappear for placements.

**IIT Delhi, University of Helsinki collaborate for joint research, academic cooperation**


The two institutes will also exchange faculty, and students (on a reciprocal basis) for limited periods of time for the purpose of education and/or research.

The Indian Institute of Technology, Delhi (IIT-D) today signed a memorandum of understanding (MoU) with Finland’s University of Helsinki (UH) to promote joint research and for academic cooperation.

Under this new agreement, the two institutes will establish a programme to collaborate in research, education, and planning, developing and testing new measurement technologies. The programme will also help in constructing and operating research infrastructure, particularly aiming to contribute to solving air quality and climate change challenges in India.

The two institutes will also exchange faculty, and students (on a reciprocal basis) for limited periods of time for the purpose of education and/or research. They will also jointly supervise students and postdocs, and cooperate in planning, constructing, and operating research infrastructures, particularly the Atmospheric Observatory located on the IIT Delhi’s Sonipat campus.
As per the new MoU, the institutes have also agreed to exchange information on research and educational programmes, teaching materials, and other literature relevant to their educational and research programmes. Short-term continuing education programmes will also be jointly organised on topics of mutual interest. Faculty members from both institutes will be invited to jointly propose and engage in research or training programmes sponsored by funding agencies.

**IIT Delhi showcases 80+ technologies developed by researchers at Industry Day**


Research and Innovations in Healthcare Technologies, Electric Vehicle Research, Communication Technologies, Clean Energy & Environment were attractions at the Industry Day, IIT Delhi said.

Indian Institute of Technology (IIT) Delhi on Saturday held the fourth edition if its industry-academia partnership event, Industry Day.

Research and innovations in Healthcare Technologies, Electric Vehicle, Communication Technologies, Clean Energy & Environment were attractions at the event, the institute said in a press statement.

“The technologies showcased within each of these themes also include those which are being developed in collaboration with industry partners. IIT Delhi is engaging with industry through centers of excellence in specified
areas of research like oil technology, smart technology-enabled manufacturing, waste to wealth, sustainable infrastructure, climate change and air pollution, energy and environment, 5G and artificial intelligence,” IIT Delhi said.

“The annual event saw a display of the best of IIT Delhi’s collaborative and interdisciplinary sharing through the breadth of the research that was presented. Over 80 cutting-edge technologies developed by IIT Delhi researchers were showcased as product demonstrations at the Industry Day event. 130+ industry-relevant concept posters created by the students of IIT Delhi were also on display,” it added.

A Microsoft Hololens-based Augmented Reality (AR) platform for early intervention and joint attention training-based rehabilitation for children with Autism Spectrum Disorder (ASD), wearable Sensors for real-time Healthcare Monitoring, Infection-resistance Polymeric Scaffolds for Wound Healing, bio-medical implant applications were among innovations showcased in the event.

“Other technologies discussed at the event were in-built solar charge controllers for refrigerators, waterless urinals, plasma gasification technology for municipal solid waste treatment and energy recovery, a smartphone-based rapid diagnostic-test reader for albuminuria; surveillance drones developed in India; two-wheelers running on compressed biogas; SARS COV2 RTPCR assay for COVID-19; Using methods of Machine Learning, and developing an understanding of How Social Media Can Help With Digital Mental Health,” IIT Delhi informed.

**IIT Delhi devises powerless heating system**


People living in remote areas with no or irregular access to power face the problem of heating their food and making a hot drink. This can be solved as a new low-cost heating system has been devised which can be activated by plain water and doesn’t need fuel or electricity to heat.
This system which is called Powerless Heating Technology has been devised by Dr. Sumer Singh, Associate Professor, Department of Design, Indian Institute of Technology, Delhi and his research team.

The technology has an active heating element which consists of a mixture of eco friendly minerals and salts and these generate exothermic energy resulting in heat on contact with water. The energy provided is adequate to raise the temperature of any food or beverage by 60 to 70 degrees Celsius.

The heater is very convenient as it weighs only 50 grams and after every heating, the by-product which is natural mineral rock inside the heating pad can be disposed of. The mineral rock is further beneficial as it helps in improving the fertility of the soil and is 100 per cent biodegradable.

Using this technology one can heat ready-to-eat food, make instant noodles, and any beverage like tea, coffee, etc.

North East Centre for Technology Application and Reach, an autonomous body under the Department of Science Technology supported Dr. Singh and his team to develop a food box and a liquid container that can be integrated with the PHT. They have used it to develop containers which can heat food and beverages on demand. This technology will eliminate burning of precious forest wood for heating purposes. Gurgaon-based start-up Anchiale Technologies is scaling up this technology and has started supplying it to the Indian Navy and some food manufacturing companies.