



NEWS CLIPS

July 28-Aug 3, 2018

Highlight of the Week@IITD

IIT-Delhi to develop in-car child safety tech for MG Motor

July 31, <http://www.dnaindia.com/automobile/report-iit-delhi-to-develop-in-car-child-safety-tech-for-mg-motor-cars-2643751>



MG Moto, IIT-Delhi enter into partnership to develop in-car child safety app

Automaker MG Motor has announced a partnership with IIT-Delhi for developing technologies and applications to enhance in-car child safety. The partnership between the company and Indian Institute of Technology, Delhi (IIT-D) was announced by MG Motor India in a statement on Monday.

MG Motor India is slated to launch its first vehicle in the country in the second quarter of 2019.

Under the partnership, a team of IIT-D is working on a project to develop an application for 'geofencing for child safety through ECU control' for MG Motor cars, the statement said.

"This project has been conceptualised to fast-track realisation of better child safety mechanisms in cars. IIT Delhi engineers will also conduct research and development activities to explore other car features that enhance child safety," MG Motor India President & Managing Director Rajeev Chaba said.

He further said the company is continuously looking at providing a platform to innovators, students and startups to develop technologies and features for its upcoming cars, that will be produced in India.

The company has taken up several initiatives to promote innovation among students and startups in India, including 'MG Innovation Program' launched last year in association with TiE Delhi.

What is geofencing for child safety through ECU control

The new application will enable owners of upcoming MG cars in India to track and alert whereabouts of their children while travelling in a car, including their entry and exit as well as their seating position in the vehicle.

The application will also alert users if the car is driven beyond a pre-defined route map.

Aug 2

IIT Kharagpur sets up bioelectronics innovation laboratory

<https://timesofindia.indiatimes.com/home/education/news/iit-kharagpur-sets-up-bioelectronics-innovation-laboratory/articleshow/65237645.cms>

IIT Kharagpur has set up India's pioneering Bioelectronics Innovation Laboratory to develop futuristic battery-free implantable medical devices for treatment of brain, nerve, muscle or spinal cord disorders that are untreatable by using standard medical practices.

Bioelectronics is a new and an exciting field in engineering that is yet to make its mark in India. It utilizes the intersecting knowledge of both electronics and biology. Bioelectronic devices generally target to restore missing neural functions, while utilizing energy efficient and miniaturized engineering systems.

"We aim to implant coin sized electronic chips with wireless energy supply for rehabilitation and prostheses applications. These chips will solve neural connectivity problems that are otherwise unaddressed by latest medical sciences. Our solutions will incorporate a combination of electrical stimulation, bio-potential recording and neuro-chemical sensing. Unlike the standard pace-makers that require a surgery every 5 to 10 years due to limited battery-life, our solutions depend on wireless power transfer and intelligent communication schemes. This will enhance the life-time of implants and reduce the number of surgical interventions. The programmable chips will help in adopting with varying physiological conditions in patients. The present line of research targets subjects with blindness, limb paralysis, sensory-motor dysfunction, cognition-loss, Parkinsons tremor, epileptic seizures, and even memory-loss. The novel bio-electronic devices will be able to sense bio-signals, process information to make intelligent decisions, and control diseased organs by electrical methods" said Sudip Nag from the Department of Electronics and Electrical Engineering who is heading this initiative at IIT Kharagpur.

The proposed medical devices will help in realizing highly affordable and reliable medical solutions that are accessible to common population in India and the world. The laboratory will facilitate energy efficient electronic system development, biocompatible packaging, bio-reliability assessment and animal testing rooms as a unified platform for an end-to-end intelligent medical system development. Grants have been received from IIT Kharagpur, under MHRD Imprint program, SFTIG Indo-Canadian Fellowship grant and DeITy SMDP grant. It is in the process of setting up collaborations with several hospitals and institutes in India and abroad.

In addition to innovating new medical devices, the laboratory will open new career avenues in incubating companies for production and marketing and also create an international supply base for

medical devices giants like Medtronic, Boston Scientific, Advanced Bionic, Second Sight and Saint Jude's Medical, added Nag. "We are looking forward to technology licensing and commercialization of bioelectronic devices that are being developed in this laboratory" he said.

Men and women are possibly from the same planet when shopping: IIT Kharagpur

<https://timesofindia.indiatimes.com/city/kolkata/men-and-women-are-possibly-from-the-same-planet-when-shopping-iit-kharagpur/articleshow/65243089.cms>



The billing is almost complete, you know that. And yet, you pick up a product lying in front of you – perhaps a box of chocolates, a pack of colourful socks or even a tie you don't really need -- and hand it over to the smiling, accommodative person at the check-out counter. Ever wondered why there are so many things kept near the billing counter? They are there to take advantage of what is known as 'impulse buying behaviour'. Impulse buying means unplanned buying or a purchase made without any advance planning. Nine out of ten shoppers are seen to occasionally buy on impulse. The behaviour has been attributed to the impulsivity of emotions which overrides long term preferences in favour of short term choices.

For years, women have been known to be particularly susceptible to this form of behaviour, given the widely held perception of their irrational nature. Yet, a study conducted by a research team of the Vinod Gupta School of Management, IIT Kharagpur's management school, have found out that barring two components of the affective and cognitive processes that go into the making of the buying decision and post-purchase decisions, women hardly differ from men when it comes to impulse buying.

The 'affective processes' refer to components like an irresistible urge to buy, mood changes and positive emotions about the product. The cognitive processes include deliberations, unplanned buying, etc. The processes are not entirely determined by the consumer's traits. Often, the shopping store can do a lot to promote unplanned shopping, such as create the right ambiance, through product placement (eg. the items near the billing counter), overt friendliness of salespersons and so on.

The study of VGSOM on "Gender effects on impulse buying behaviour", which has earned the

research team the Emerald Literati Award 2018 for outstanding papers in Emerging Markets Case Studies under the category “Highly Commended”, shows that women are significantly different from men when it comes to “mood management” determining their buying behaviour. However, when it comes to determinants such as “irresistible urge to buy”, “positive buying emotion”, “unplanned buying” and “disregard for future”, they are no different from men.

As for post-purchase behaviour – “Should have purchased another one”, “Feeling of guilt”, “Feeling of regret” – women vary from men only in “feeling guilt”.

Prof. Sangeeta Sahney of, VGSOM, IIT Kharagpur, who has mentored the research and co-authored the essay, says this could be because of the “risk” perception that accompanies the buying decision. For women, the risk is not “financial alone, but also related to social, psychological, performance risk and so many others,” says Prof. Sahney. For example, says Prof. Sahney, a woman may think whether a particular dress will suit her or how will it be perceived by others in her milieu.

This study is important because it determines “post-purchase cognitive dissonance reduction strategies” that have to be adopted by the seller to keep the consumer from returning the product, says Prof. Sahney. The study of women consumer behaviour is important given the continued rise in the number of working women who are the choice-makers. So, their impulse buying has a tremendous relevance in an emerging market like India.

The research paper was the result of the collaborative work between Prof. Sahney, Gyan Prakash, Soujanya Kodati and Archana Shrivastava. Both Prakash and Kodati are former IIT Kharagpur graduates.

India’s First Indigenously Built Smart Air Purifier Unveiled, Courtesy IIT Madras!

<https://www.thebetterindia.com/154214/indias-first-smart-air-purifier-iit-madras/>

The state of the art purifiers have many futuristic features from Wi-Fi to touch interface to remote monitoring via mobile phone.

When we think about air pollution, we often imagine vehicles chugging out smoke or factories throwing up toxins, but we fail to realise that most of these also take place right inside our homes.

The U.S. Environmental Protection Agency found that indoor air can be anywhere from two to five times as polluted as outdoor air. According to the World Health Organisation, household air pollution poses one of the world’s greatest environmental health risks.

This is because pollutants are trapped indoors, where they are concentrated and multiplied to harmful levels. This indoor pollution contributes to a wide variety of health issues, from allergies to asthma.

Addressing this situation is the startup AirOK with its indigenously developed ‘Vistar’, which is claimed to be India’s first smart air purifier.

Incubated at the Indian Institute of Technology (IIT) Madras, the startup was in works for three years to develop a smart air purifier that can not only work in homes but also in hospitals, commercial real estate and food processing.



The AirOk Team. From left: Vijaya Savanth, Pavan Reddy, Deekshith Vara Prasad, Sravan Krishna and Bhanu Prasanna Varma.

Speaking to The Better India, Bhanu Prasanna Varma an IIT Madras alumni, AirOK's Head of Business Development and market research told us about the conception of the product. "We started in April of 2015. We were working in the air quality monitoring technology; it was only later that we shifted into air control technology. Thereafter, our journey began."

The state of the art purifiers have many futuristic features from Wi-Fi to touch interface to remote monitoring via mobile phone. The tech can estimate the percentage of pollutants in the air at any given point.

A statement from IIT Madras described the product, "Vistar 550 has coverage area of 550 square feet. The filter will have a life of about one year, which is twice that of the air purifiers currently available in the market."

Prof Ashok Jhunjhunwala, Faculty-in-charge, IIT Madras Research Park, launched the product at the premier institution and addressed the gathering. According to the [report](#) on NDTV, he said, "Ever increasing air-pollution in Indian cities is having severe impact on health of its people. We need a war on pollution-causing elements. But in the meanwhile, we need to minimise its impact, by cleaning air, wherever it is possible. AirOK has come up with something which will make great an immediate difference to our lives."

"The existing filters in the market weren't upto the mark– lifetime-wise," says Prasanna. He explains, "There hasn't been much improvement in the filter technology so we wanted to improve that and at the same time, make it more economical. That's when we came upon EGAPA."



EGAPA is the patented filter technology from AirOK. It stands for Effective Granular Absorption Particulate Arrester and works on the absorption process. With a dual stratified filter technology, it has the capability of filtering particulates up to 0.3 microns.

These particulates include volatile organic compounds, acidic and basic pollutants, airborne bacteria and pet dander.

The smart air purifier can be placed in any corner of the room where it can sense the pollution level and automate the fan speed, based on the concentrations of the pollutants.

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Delhi, chew this! Gutka, pan masala packets are clogging drains in capital, says report

<http://www.dnaindia.com/india/report-delhi-chew-this-gutka-pan-masala-packets-are-clogging-drains-in-capital-says-report-2643781>



In Delhi, around one-fifth of the garbage that causes blockage in the drain accounts for pan masala and gutka packets.

According to a study by the Indian Institute of Technology (IIT)-Kharagpur, around 22% of the gutka and pan masala packets were found in Delhi's drains that lead to waterlogging during the monsoon season, a Hindustan Times report said.

“Most drains in Delhi look like mini gutkha factories. These wrappers are more harmful than regular plastic bags because they’re thicker. During rain, packs that are thrown on roadsides get carried to the mouths of the drains and block the passage of water,” TS Ramachandran, IIT-Kharagpur's professor in urban design and road management was quoted as saying by HT.

The study by IIT's urban planners also found that the silt in Delhi's drains also consist of 27% plastic film and plastic bags, around 39% paper and other soluble waste and 12% from leaves, twigs and dust.

Delhiites have to face the problem of waterlogging every monsoon. There are around 165 major drains in the city.

Earlier this month, Kejriwal said that his government will sanction funds for construction of roads and drains in all unauthorised colonies of the city within 15 days.

He made this announcement while inspecting civic facilities in north west Delhi's Kirari. During his visit to unauthorised colonies, Kejriwal interacted with locals and after listening to their grievances, warned officers that they would be suspended for "shoddy" work.

"People live in hellish conditions in unauthorised colonies. To give them dignity n better life, funds will be sanctioned for roads n drains in next 15 days for ALL unauthorised colonies in Delhi. Work will start on war footing and daily progress will be monitored (sic)," he tweeted.

Last year, the desilting of drains had caused tussle between the government and bureaucracy, with Chief Minister Arvind Kejriwal seeking action against the then PWD Secretary Ashwani Kumar for not obeying his order over desilting of drains.

The Lieutenant Governor Anil Baijal had also formed a high-level committee to look after desilting of drains and open manholes in the national capital. The committee then said it would coordinate with various agencies for the desilting work so that they did not end up passing the buck among each other.

SCIENTISTS AT IIT MADRAS DEVELOP NEW BIODEGRADABLE AND SUPER-ABSORBENT DIAPERS

<https://www.firstpost.com/tech/science/scientists-at-iit-madras-develop-new-biodegradable-and-super-absorbent-diapers-4861821.html>

The diapers have been made out of a biodegradable polymer using chitosan, citric acid and urea.

The use of disposable diapers is commonplace for baby care in urban areas. Diapers are also used for the elderly persons experiencing uncontrolled urination due to certain geriatric health problems. Diapers contain super-absorbing polymers (SAPs) which can absorb and retain a large quantity of liquid. However, they are made of synthetic materials which are non-biodegradable. Safe disposal of used diapers is thus a major environmental problem.

In order to address the problem, scientists from the Department of Chemistry at Indian Institute of Technology, Madras have developed a biodegradable superabsorbent polymer using chitosan (a kind of sugar extracted from seafood waste), citric acid and urea. This super-absorbent has the capacity – it can absorb 1250 gm of water for each gram of the polymer.



The researchers used chitosan obtained from seafood waste source, and two easily available sustainable chemicals - citric acid and urea. Water absorbing material from a commercial baby diaper was used for comparison. The materials - chitosan, citric acid and urea – were mixed in weight ratio of 1:2:2. The mixture was heated in an aqueous medium to 100 degrees C in a closed container to form a highly viscous and porous, cross-linked gel denoted as CHCAUR. The gel was then dried to remove residual solvent and powdered for further study.

It was found that the water absorption capacity of CHCAUR was about eight times compared to super-absorbing polymers used in commercial diapers. The structure of this crosslinked polymer gel was analysed using powder x-ray diffraction method. Its properties were studied extensively by various analytical techniques like solid-state nuclear magnetic resonance, Fourier-transform infrared spectroscopy and thermogravimetric analysis.

The scanning electron microscopy was used to confirm the presence of macropores in the gel surrounded by a fibrous network of chitosan molecules forming an agitated surface. The team also found that higher water absorption capacity of the gel could be due to the macroporous structure.



Researchers at IIT Madras

“In the present form, our material does not absorb water as rapidly as commercially available diaper materials, but it is biodegradable unlike fully synthetic commercial superabsorbents,” explained Dr Raghavachari Dhamodharan, the lead researcher, while speaking to India Science Wire. He described the synthesis process as eco-friendly since water has been used in experiments instead of any synthetic chemicals.

“We have tested our material as an additive to soil for the growth of some potted plants like chilly, at home, and find that it is enough if they are watered once every four to five days,” said Abathodharanan Narayanan, another team member, while commenting on the study.

The gel has also been tested for its suitability as a scaffolding material in tissue engineering. Researchers feel it can also find applications in agriculture, especially as a controlled releasing agent of micro and macronutrients to the soil. The study also mentions that when applied to soil, CHCAUR was found to decrease water evaporation rate significantly.

At present, the research team is working on similar biodegradable polymers as a substitute for polyurethane, polystyrene packaging materials that do not degrade.

The research team included Prof Raghavachari Dhamodharan, Abathodharanan Narayanan, Ravishankar Kartik, and Elanchezhian Sangeetha (Indian Institute of Technology, Madras). The results of the study have been published in journal Carbohydrate Polymers. (India Science Wire)

This IIT Roorkee PhD student's solar-powered heaters can provide energy to remote areas in winters!

<https://www.indiatoday.in/education-today/news/story/iit-roorkee-phd-student-solar-powered-heaters-remote-areas-energy-in-winters-1301280-2018-07-31>

Working on Solar-Assisted Ground Source Heat Pump (SAGSHP) system for Space Heating Application, Vikas Verma was motivated to take up research work that attempts to replace the electric heaters operated by high-grade energy in North India for space heating during the winter season.

He completed his PhD work in Mechanical and Industrial Engineering Department from IIT Roorkee in 2017 and is currently an Assistant Professor in the Department of Energy, Tezpur University, Assam.

This is one of the areas of research as part of an MoU (Memorandum of Understanding) between IIT Roorkee and Geo-environmental Research Centre headed by Professor HR Thomas in Cardiff University, UK.

More on the student's study:

Dr Vikas Verma fabricated and established a SAGSHP system in Department of Mechanical and Industrial Engineering - MIED, IIT Roorkee, to carry out experiments during the winter season.

The most interesting part of the research was that they demonstrated that the solar energy available during the winter season could be used effectively for space heating with the help of a heat pump as solar energy is a very lean form of energy.

Speaking about his experience, Dr Verma said:

"As a student from the Mechanical and Industrial Engineering Department, I am deeply honoured to bring more attention to my department's constant research efforts... and feel that my research done during my IIT Roorkee days has a lot of societal impact."

Also, the solar energy available in the daytime could be stored underground and can also be used for space heating in the night time.

In his dissertation work, it was estimated that SAGSHP requires only 25 per cent of the electricity used in the electric heaters to produce the same heat energy.

- The payback period for this unit is only 7 years

Thus, solar energy can be tapped to charge heaters during winters in areas facing harsh climate conditions, providing medical aid at high altitudes, army base camps and homeless shelters.

These areas shall all benefit alike as India is abundant with solar energy and this is in line with the govt's push towards its National Solar Mission.

About Dr Vikas:

Dr Vikas Verma was **among the few Indian Research Scholars who have been selected to participate in the 3rd BRICS Young Scientist Conclave** held in South Africa from 25th to 29th June 2018 based on his research.

His idea won this project a ticket to the prestigious forum to showcase by proving what the alternate methods are in which India can access its solar energy and convert it to reduce CO2 emissions.

About IIT Roorkee:

IIT Roorkee is an institute of national importance imparting higher education in engineering, sciences, management, architecture and planning, and humanities and social sciences.

Since its establishment in 1847, the Institute has played a vital role in providing technical manpower and know-how to the country.

In the Times Higher Education Asia University Rankings 2018, the institute has been ranked 3rd among the IITs, while on the citations criterion, it has been ranked 1st among all the Institutes in India.

It was converted to University of Roorkee in 1949 and to IIT Roorkee in 2001.

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The remaining 97% of students attend 865 higher educational institutes in the country and get less than half the government funds.

<https://theprint.in/governance/iits-iims-nits-have-just-3-of-total-students-but-get-50-of-government-funds/89976/>

More than 50 per cent of the central government's funds for higher education, in the last three years, has gone to just 3 per cent of the country's students — those who study at the likes of the Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs) and National Institutes of Technology (NITs).

Such is the skewed government attention that the remaining 97 per cent of the students attend 865 higher educational institutes in the country and of these, just about half are public funded. And together, they receive less than half the total government funds.

Even the prestigious Indian Institute of Science (IISc) and the 10 IISERs are in this category.

On the other hand, there are just 97 IITs, NITs, IIMs and Indian Institutes of Information Technology (IIITs) in all.

Data shared by the Ministry of Human Resource Development (HRD) in Parliament recently shows the single biggest chunk of government funds — 26.96 per cent of the total — has gone to the IITs, which have just 1.18 per cent of the students; 17.99 per cent has gone to NITs, where 1.37 per cent of the students study; 3.35 per cent has gone to the IIMs, which have 0.12 per cent of the students and 2.28 per cent of the budget has gone to the IIITs, where 0.05 per cent students study.

The remaining 48.9 per cent of the higher education funds have gone to the 865 institutions, which have 97.4 per cent of the country's students.

Educationists and policy-makers blame the lop-sided approach on the government, having created a kind of hierarchy within the education system. Others say that the Centre has not kept up with the growing number of institutes.

'Unequal, unfair'

While the government data is for just three years, former HRD minister Pallam Raju, who headed the ministry under the UPA government, said the skewed funding pattern has been the norm for years.

"Initially the number of higher education institutions was very little and IITs were recognised as premier institutions. So, in order to keep up their competence, funding had to be proportionate, whereas, central universities started growing in terms of disciplines and the funds that go to each department started going down," Raju told ThePrint.

"Simultaneously, we did not work on an alternate mechanism to run these institutions and that is what caused the problem."

Former chairman of the University Grants Commission (UGC), Sukhdeo Thorat, who has seen government's policies very closely, criticised the "hierarchical" system.

"Funding is being granted to higher education institutions in a hierarchy system. Some institutions are being given more funds while others are being left high and dry. Equal funding should be given to all and then the government should see how these institutions perform," Thorat said.

Another official who has worked with the government on education policy, said, "When it comes to funding, state universities are left high and dry. Most of them are now running on a self-financing mode. How can we expect the public education system to improve in such a scenario?"

The official also said that the IITs and NITs get huge amounts of money as the government only wanted Indian institutions to figure in world rankings.

“Nobody wants to focus on improving the system at the base. I am not comfortable with the approach where the government is trying to give more funding to some, while under-funding the others. It is like a caste system or hierarchy. The system as a whole should be funded,” he added.

IITs, IIMs the winners

Apart from funding, the IITs and IIMs also receive the maximum government attention in terms of policy-making.

Two of the IITs — Bombay and Delhi — recently found a place in the list of Institutes of Eminence. They are now eligible for more grants to catapult them to world rankings.

Before the proposal of the Institutes of Eminence was finalised, the government had floated “Project Vishwajeet”, which was also focused on providing more grants to IITs as part of efforts to develop them into world-class institutions.

The government’s other favourite child, the IIMs, also receive a lot of attention. For one, they are autonomous. This allows them to charge fees on their own discretion, hire faculty and manage themselves without any interference from the government.

Nuclear scientist Anil Kakodkar, who in 2011 headed a panel set up to upgrade the quality of research and further development of IITs, believes that “equalising the budget” isn’t the solution.

“There is a need to increase the overall standard of higher education institutes but the way to look at it is not to equalise the budget,” he said.

“There is a huge demographic dividend in the country and if you want to leverage that demographic dividend you must create value out of the capability of the youth, that in turn can be done by intervening in higher education,” he added.

He pointed to what he said is the problem — that the country spends way too little of its GDP on education. “Instead of looking at the amount of money that we are spending on various institutions, we should look at India’s overall spending on education and what is the percentage of our GDP that we are spending on education,” Kakodar said.

Changing the course of higher education in India

<http://www.navhindtimes.in/changing-the-course-of-higher-education-in-india/>

In a significant development towards reforming higher education, the Ministry of Human Resource Development (MHRD) has announced a complete overhaul of the apex regulator – the University Grants Commission, repeal of the University Grants Commission (UGC) Act, 1951 and to bring in a new legislation to set up Higher Education Commission of India (HECI). Accordingly, the draft law was uploaded on the official website of MHRD and was available for comments and suggestions till July 7.

It is understood from the draft that the HECI has separated the funding and academic functions earlier looked after by the UGC.

The parent legislation of the UGC will now be repealed to make a place for a new comprehensive regulation enabling establishment of the Higher Education Commission.

The new body will now exclusively focus on setting up and implementing academic standards rather than on giving grants, with the funding function of the UGC being taken over by the MHRD.

The thrust area of the commission would be to downsize over-governance of institutions and for the first time, bring in disclosure-based regulatory regime with powers of enforcement of regulations.

It seems that the HECI will have more teeth with backing of penal powers to order closure of institutes that violate set norms.

The commission would also be able to impose fines and prosecute the offenders in higher education system as per procedures laid down under the Criminal Procedure Code including that of imprisonment for a term which may extend up to three years where necessary.

Long-awaited move

Over a decade ago, the National Knowledge Commission had recommended constituting an independent Regulatory Authority for Higher Education (RAHE) to replace all the existing regulatory bodies in higher education including the UGC and the All India Council for Technical Education (AICTE).

Subsequently, Prof Yashpal Committee on Renovation and Rejuvenation of Higher Education in June 2009 also advocated a single apex regulatory body like the National Commission for Higher Education and Research (NCHER) by converging multiple regulatory agencies in the field of higher education under the MHRD including the UGC and AICTE.

As soon as the present government assumed power, the UGC Review Committee was constituted in 2014 headed by Prof Hari Gautam. This committee recommended that UGC be scrapped and should be replaced with an apex institution titled National Higher Education Authority (NHEA).

This report was never put in public domain for suggestions, was shelved by the MHRD and subsequently forwarded to the NITI Aayog only to be put in cold storage.

The Prof Hari Gautam Committee report had plainly put forth that the UGC does not have the sufficient number of personnel of necessary quality to be a useful regulatory force in the higher education sector.

Incidentally, HRD Ministry headed by Irani chose to differ with the committee over the issue of scrapping the UGC.

In the Budget 2017 speech, the PM had announced that the UGC shall be reformed with NITI Aayog pitching for a Higher Education and Empowerment Regulatory Authority (HEERA) by bringing institutions like the UGC, AICTE, the National Council of Teacher Education (NCTE) and the Distance Education Council under the MHRD.

This idea supported the belief that the approval and regulatory process of the UGC is based on meeting infrastructure requirements and does not necessarily measure the quality of the programmes.

The basic intention of this move was, with an aim of eliminating overlaps in jurisdiction between AICTE and UGC, to remove irrelevant regulatory provisions and bring transparency and uniformity in higher education.

It was proposed to introduce the bill for HEERA in July 2017 session of Parliament to get its nod, but then the unusual happened.

Taking a diverging stand on the issue in August 2017, the Rajya Sabha was informed by M N Pandey, Minister of State for HRD that the government is not considering any merger of the UGC and the AICTE into a single higher education regulator.

Array of Confusions

From a direct contravention to the stand taken by Irani in 2014 of not scrapping the UGC and also in contradiction to the budget announcement in 2017 of subsuming all higher education bodies including AICTE and UGC under one authority, the government has decided to go ahead with scrapping the UGC and this time but without subsuming the AICTE and the National Council for Teacher Education (NCTE) as was originally envisaged.

Though the HCEI aims at downsizing over governance of institutions as it is being said, it not understandable as to why the Bar Council of India and Council of Architecture have been kept out of the purview of HCEI when surprisingly it is said that the HCEI will override the Architects Act.

It is proposed that the HCEI will set standards for opening and closure of institutes, provide greater flexibility and autonomy to institutes and lay standards for appointments to critical leadership positions at institutions across spectrums and even for those falling under state laws.

This is no new change any way. All this was already within the ambit of UGC powers.

Further, the current UGC statutes are also applicable across various states as the state governments have almost no mandate to restrict and contain these laid standards as per the recent ruling of the Supreme Court.

It is also not understood as to how the new HCEI will offer better flexibility over the existing system. Further, the proposal of the financial grant to be taken over by the MHRD itself is also seen with a lens of skepticism by teacher's bodies over the country.

The draft HCEI Act is now expected to be piloted in Parliament in the monsoon session and will probably pave the way for the government to follow reforms in AICTE and NCTE.

Considering that the Modi government's term is coming to an end within a year, it would be intriguing to see how all of these expectations would come true.

IIT-M develops low cost landslide monitoring system

<http://www.thehansindia.com/posts/index/Young-Hans/2018-07-30/IIT-M-develops-low-cost-landslide-monitoring-system-/402256>



IIT-M develops low cost landslide monitoring system

Indian Institute of Technology Mandi has successfully developed a low-cost landslide monitoring and warning system against landslide disasters, which are a common problem in the Himalayan mountain belt.

Every year, on an average about 200 lives is lost due to landslides in India and INR 550 crores is spent to cover damages to infrastructure. The problem is complicated by the fact that existing landslide monitoring and warning technologies cost crores of rupees, questioning their large-scale deployments over a wide geographical area.

Explaining the same, Prof Varun Dutt, School of Computing and Electrical Engineering at IIT Mandi said, “To address the problem of landslides and to reduce the cost of sensing these disasters, a faculty-student group named, iloTs, incubated by Indian Institute of Technology (IIT) Mandi’s technology incubator, Catalyst, has developed an indigenously built low-cost landslide monitoring and warning technology. The system, which costs around INR 20,000, can record weather parameters and soil properties.”

Adding to his inputs, Prof K V Uday, School of Engineering at IIT Mandi said, “The system can generate warnings both locally (via blinkers and hooter) and globally (via SMSes) if there are soil movements of different magnitudes in the vicinity of the deployed system.” With support and encouragement from the Mandi district administration, iloTs recently deployed 10-systems in the Mandi district at different landslide sites along the Mandi – Jogindarnagar and Mandi – Kullu highways.

The systems deployed along the Mandi – Jogindar Nagar highway include the following: one system at Narla village, two systems at Kutropi village, and two systems at Gumma village. The systems deployed along the Mandi – Kullu highway include the following: one system each at Deode, Hanogi, Thalot, Dwada, and Pandoh villages.

These 10-systems constitute one of the largest such deployments in India till now. Each system can monitor soil movement and weather parameters at the deployed locations. These parameters can be perused online on a website in both tabular and graphical formats. Besides, each system has the capability of intimating population at risk about significant rainfall or soil movement events in their vicinity via SMSes.

About the landslide monitoring system:

The landslide monitoring system detects if there is significant soil movement, and then vehicular road traffic can be alerted by the system using blinkers, which have been provided along the road where possible. The blinkers come online for 10-15 seconds with lights and sound each time soil movement

is recorded at the deployment site. Recently, at Kutropi, a location that witnessed a massive landslide in the 2017 monsoon season, the system was operational when a massive mud-flow took place damaging the Mandi-Jogindar Nagar highway.

Shubham Agrawal heads the IoTs team with support from team-members Praveen Kumar, Ankush Pathania, Priyanka Sihag, Pratik Chaturvedi, and Naresh Mali. The team is mentored by IIT Mandi faculty, Varun Dutt (Computer Science and Engineering) and K V Uday (Civil Engineering). The research behind the system has been supported by grants from Himachal Pradesh Council for Science, Technology, and Environment; Defence Terrain Research Laboratory, DRDO; and National Disaster Management Authority.

The IoTs group has already filled patents on this low-cost technology and published research outcomes from the deployed systems in top academic outlets including, IEEE-Wiley and the Natural Hazards and Earth System Sciences journal. Ahead this year, the IoTs group is planning to deploy its systems in Sirmour and other districts of Himachal Pradesh as well as at other landslide-prone locations in India.

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Govt opens research projects for all higher education institutions; anti-plagiarism software to be made freely available

<https://news.careers360.com/govt-opens-research-projects-all-higher-education-institutions-anti-plagiarism-software-be-made>



The Government of India has opened all its research projects for teachers and students of all Universities, earlier many were limited to centrally funded institutions like the Indian Institutes of Technology (IITs), Indian Institute of Science (IISc), Indian Institutes of Science Education and Research (IISERs), National Institutes of Technology (NISERs) and Central Universities.

Ministry of Human Resource Development (HRD), Prakash Javadekar speaking at the National Conference of Vice Chancellors of Universities and Directors of Higher Education Institutions said that the selection of candidates will be purely based on merit.

In order to check Plagiarism, Turnitin software will be made available at no cost basis to all

Universities in the country.

Vice Chancellors of Central Universities, State Public Universities, Deemed to be Universities, State Private Universities, Directors of Central Institutes, such as IITs, IISc., IIMs, IISERs, IIITs, NITs and other central institutions participated in the National Conference.

The Minister said that this conference is different from previous ones because first time Ministry of HRD has invited not only VC's of Centrally funded Universities and Directors of Central Institutes, such as IITs, IISc., IIMs, IISERs, IIITs, NITs but also invited all Vice Chancellors of State Public Universities, Deemed to be Universities, State Private Universities because our aim is to break the walls of separation for the betterment of the education sector.

Dr Vijay Bhatkar was felicitated by the Union HRD Minister on the occasion. He is one of most acclaimed and internationally acknowledged scientists of India. He is presently the Chancellor of Nalanda University. Prior to Nalanda responsibility, he was the Chairman of Board of Governors of IIT Delhi from 2012 to 2017. He is best known as the architect of India's national initiative in supercomputing, where he led the development of India's first supercomputer Param in 1990.