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IIT-Delhi looks for medical miracle in cow urine, dung

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NEW DELHI: The next medical breakthrough by an Indian scientist may just involve the cow, an animal that has unwittingly found itself surrounded by controversies in the last two years.

Scientists floated 40 proposals, including setting up a "gau vigyan (cow science) university" and researching the "anti-cancer" properties of cow urine, at a workshop organised by the Indian Institute of Technology-Delhi on Sunday. The programme was aimed at instituting a national project to validate the health benefits of Panchgavya – a concoction prepared with cow urine, dung, milk, curd and ghee.

Prof VK Vijay, head of the institute's centre for rural development, said some of these projects will be approved by a steering committee. Following that, they could receive funds from various government agencies such as the ministry of science and technology and the Indian Council of Medical Research.

KEY PROPOSALS

- Studying benefits of urine of indigenous cows in improving immunity and treatment of cancer
- Investigating cow urine for increasing efficacy of tuberculosis treatment
- Finding antiviral potential in cow products to treat chikungunya and dengue
- Developing probiotic drink and insect repellants from cow products
- Establishing 'Gau Vigyan University' as a centre for all research on cow products

Around 200 scientists, experts and students gathered to discuss how Panchgavya and related products can be used for rural development, medicinal purposes and food manufacture.

Professor RS Chauhan, who teaches pathology at the College of Veterinary and Animal Sciences in Uttarakhand, put forth a proposal to study the possible role of cow urine in enhancing immunity and treating cancer. "My research on the urine of four indigenous cattle breeds has revealed that it enhances immunity and kills cancer cells. However, we are yet to test its effects on humans," he said.

Hemant Purohit, an expert from the National Environmental Engineering Research Institute at Pune, said "a combination of ancient knowledge and modern science" will be taught at the gau vigyan university.

Union science and technology minister Harsh Vardhan said although Indians have a soft spot for cows, there was a need to go beyond religious sentiments and look at the benefits of Panchgavya from a scientific angle. "We need to focus on patenting our research and getting it published in reputed journals," he added.

The workshop, titled 'Scientific validation and research on Panchgavya', was backed by the Unnat Bharat Abhiyaan, a flagship scheme of the HRD and science and technology ministries.

Navodaya Times ND 19.12.2016 P-09

एम्स, आईआईटी और डीयू मिलकर कर रहे हैं तैयार

नवजात में बहरेपन की जांच आसान करेगा उपकरण

■ किफायती साबित होगा नया उपकरण

नई दिल्ली, 18 दिसम्बर (ब्यूरो) : अखिल भारतीय आयुर्विज्ञान संस्थान (एम्स), आई आई टी, दिल्ली विश्वविद्यालय और म्यूनिख यूनिवर्सिटी के संयुक्त प्रयास से बहरेपन की जांच के लिए एक विशेष उपकरण तैयार किया जा रहा है। यह उपकरण विशेषतौर पर नवजात बच्चों के लिए विकसित किया जा रहा है। इस उपकरण की मदद से नवजात शिशुओं में बहरेपन की जांच करना पहले के मुकाबले ज्यादा आसान होगा। वहीं जांच की प्रक्रिया भी किफायती साबित होगी। इस विशेष उपकरण को 100 यूएस डॉलर की लागत से तैयार किया जा रहा है। जिससे नवजात शिशुओं में बहरेपन की संभावनाओं का पता समय रहते लगाने की क्षमता होगी।

उपकरण खास इसलिए है कि इसका इस्तेमाल आम आदमी भी कर सकता है। इसके अलावा विद्यालयों के शिक्षक भी स्कूली बच्चों की स्क्रीनिंग बेहद आसानी से कर सकते हैं। एम्स के एसोसिएट प्रोफेसर डॉ. कपिल सिक्का के मुताबिक ज्यादातर मामलों में बहरेपन

अध्ययन के दौरान सामने आया चौंकाने वाला खुलासा

एम्स के ईएनटी विभाग के प्रोफेसर आलोक ठाकुर के मुताबिक शिशुओं में बहरेपन की समस्या पर एक अध्ययन किया गया। इस दौरान चौंकाने वाले नतीजे सामने आए हैं। उन्होंने बताया कि ग्रामीण इलाकों में 30 प्रतिशत और शहरी इलाकों में 6 प्रतिशत बच्चे बहरेपन का शिकार हैं। वहीं देशभर में 0.50 प्रतिशत आबादी बहरेपन की विभिन्न समस्याओं से पीड़ित है।

के लिए जिम्मेदार कारणों को तलाशने में होने वाली देरी समस्या को और भी ज्यादा गंभीर बना देती है।

नतीजतन इलाज के दौरान अतिरिक्त चुनौतियों का सामना करना पड़ता है। वहीं कई बार समस्या लाइलाज भी साबित होती है। बच्चों में बहरेपन के पीछे कुपोषण, संक्रमण और ईयर ड्रम में चोट आना प्रमुख कारणों में से एक है। डॉक्टर के मुताबिक उपकरण बनाने की प्रक्रिया को तीन वर्षों में पूरा करने का लक्ष्य रखा गया है।

Human-induced climate change worsened 2015 heatwave in India, says IIT research

http://indianexpress.com/article/india/human-induced-climate-change-worsened-2015-heatwave-in-india-says-iit-research-4434930/

The research team also found that, despite being close in location and time, the two heat waves were "meteorologically independent."

The deadly heat waves that killed nearly 2,500 people in India and 2,000 people in Pakistan last year were exacerbated by human-induced climate change, scientists including those from IIT-Delhi have found. Researchers examined observational and simulated temperature and heat indexes and found that the heat waves in zthe two countries “were exacerbated by anthropogenic climate change.” While the two countries typically experience severe heat in the summer, the 2015 heat waves – which occurred in late May/early June in India and in late June/early July in Pakistan – have been linked to the deaths of nearly 2,500 people in India and 2,000 in Pakistan.

Researchers used “factual” simulations of the world and compared them to “counterfactual” simulations of the world that might have been had humans not changed the composition of the atmosphere by emitting large amounts of carbon dioxide, said Daithi Stone from the Lawrence Berkeley National Laboratory (Berkeley Lab) in US.

“It is relatively common to run one or a few simulations of a climate model within a certain set of conditions, with each simulation differing just in the precise weather on the first day of the simulation; this difference in the first day propagates through time, providing different realisations of what the weather ‘could have been,'” said Stone.

“The special thing about the simulations used here is that we ran a rather large number of them. This was important for studying a rare event; if it is rare, then you need a large amount of data in order to have it occurring frequently enough that you can understand it,” Stone added.

Researchers, including those from Indian Institute of Technology (IIT) Delhi, examined both observational and simulated temperature alone as well as the heat index, a measure incorporating both temperature and humidity effects.

From a quality-controlled weather station observational dataset, they found the potential for a very large, human-induced increase in the likelihood of the magnitudes of the two heat waves.

“Observations suggested the human influence; simulations confirmed it,” said Michael Wehner, climate researcher at Berkeley Lab.

The heat waves in Pakistan in late June/early July of 2015 were also similar killing around 2,000 people.

The research team also found that, despite being close in location and time, the two heat waves were “meteorologically independent.”

Millennium Post ND 19.12.2016 P-13

IIT Kharagpur to host Global Entrepreneurship Summit 2017 in Feb

KHARAGPUR: Amidst the entrepreneurial boom this year, Entrepreneurship Cell of IIT Kharagpur has already ventured various activities, including the Entrepreneurship Awareness Drive (EAD), a pan-Indiainitiative to spread entrepreneurship in 23 cities across India.

With the successful execution of EAD2016, which saw close to 30,000 participants and personalities such as Ankur Warikoo (Co-founderand CEO of Nearbuy), Muurugavel Janakiraman (founder-CEO of Matrimony.com) and GauravKachroo (CEO, On Sunday Retail), Entrepreneurship Cell, IIT Kharagpur now verges upon - the Global Entrepreneurship Summit (GES). Entrepreneurship Cell IIT Kharagpur presents Global Entrepreneurship Summit-2017 (scheduled: 3 rd -5 th February, 2017), one of its flagship events and the biggest entrepreneurial platforms for New- age Entrepreneurs, Eminent Business personalities, Venture Capitalists and College Students to their entrepreneurial endeavors and experiences, and to pledge to take entrepreneurship in India to greater scales. The major draw of GES is the quality and variety of speakers that it has seen over the years.

The previous editions of GES have witnessed Stalwarts such as Sundar Pichai, Rajat Sharma (founder and CEO of India TV), B K Chaturvedi (former cabinet secretary, Government of India and Padma Bhushan Awardee), Sramana Mitra (Forbes Columnist and Silicon Valley entrepreneur), Sanjeev Bhickchandani (Founder, Naukri.com), Vani Kola (MD, Kalaari Capital) and many more. MPOST

NIH, IIT Mumbai working on pilot project to clean waste water

http://timesofindia.indiatimes.com/city/dehradun/nih-iit-mumbai-working-on-pilot-project-to-clean-waste-water/articleshow/56051945.cms

DEHRADUN: Officials of National Institute of Hydrology (NIH), Roorkee and IIT Mumbai are working on a pilot project to purify waste water through 'constructed wetland' technique in a remote village of Haridwar district.

If the project is successful, it will be implemented in 10 other villages of Muzaffarnagar and Meerut districts under the Integrated Water Resource Management project being sponsored by Union ministry of water resources, River Development and Ganga Rejuvenation.

Senior scientist at NIH, VC Goyal, told TOI: "We are purifying waste water in Ibrahimpur Masahi village through wetland technique. Under this technique, water is being treated for its impurities with pebbles and enzymes in liquid form."

Ravinder Saini, village head, said: "Now, the villagers are planning to start rearing fish in the pond. The fruit trees would also be planted on the edges of the pond which would provide shade along with fruit."

The villagers are being trained about the right practices of agriculture and water conservation, Goyal said, adding: "Once

they learn it, they would face no shortage of water for agriculture or personal consumption. Their crops will give them good yield and revenue."

IIT Madras researchers prove the superiority of arsenic water filter

http://www.thehindu.com/sci-tech/science/IIT-Madras-researchers-prove-the-superiority-of-arsenic-water-filter/article16896289.ece

Exhaustive research carried out by a team of researchers led by Prof. T. Pradeep from the Department of Chemistry at the Indian Institute of Technology (IIT) Madras, spread over four years, has put to rest the scepticism about the merits of the arsenic water filter developed by them. The water filter has been in operation for three and half years in about 900 sites in India, serving close to 400,000 people.

Arsenic in drinking water is the largest natural mass poisoning in the history of humanity, affecting 13 crore people globally. The problem of arsenic in the environment, known for over 1,002 years, has not been solved satisfactorily, due to the non-availability of appropriate and affordable materials. Arsenic is a slow poison, causing numerous adverse health effects, including cancer and genetic anomalies.

The technology developed at IIT makes use of confined metastable 2-line iron oxyhydroxides and its large adsorption capacity to remove arsenic in two different dissolved forms (arsenate and arsenite). The filter was able to reduce the arsenic concentration in the water from 200 ppb (parts per billion) to well below the WHO limit of 10 ppb. The results were published recently in the journal *Advanced Materials.*

“The arsenic removal capacity of the material filter was found to be 1.4 to 7.6 times better than all the other available materials,” says Prof. Pradeep. “The superior arsenic uptake capacity is due to its inherent structure. Nanostructured iron oxyhydroxide makes many sites available for arsenic uptake. The ions of arsenic adsorb on the nanoparticles at specific atomic positions. No nanoparticles are released into the purified water due to the biopolymer cages in which they are contained.”

The team mimicked the average arsenic concentration seen in West Bengal — 200 ppb of arsenic — for carrying out several laboratory studies. Though studies were carried out at a pH of 7.8, the team found the adsorption capacity of the filter was not compromised in the pH range 4 to 10. “The pH of drinking water is in the range of 6.5 to 8.5. But we tested the filter in a wide range of pH so it can be used for other purposes as well,” says Prof. Pradeep.

"A filter composed of 60 grams of the material can be used safely for removing arsenic from 1150 litres of water and till such time the concentration of arsenic in the filtered water does not cross the WHO limit of 10 ppb," he says. Once the filter has reached its saturation limit it has to be reactivated or recharged with new material.

Reactivation is done by soaking the material in sodium sulphate solution for an hour at room temperature. It is further incubated for about four hours after reducing the pH to 4. "Using this reactivation protocol we reused the same filter seven times," he says.

Studies were carried out to test if the adsorbed arsenic leached from the filter. The team found that the amount of arsenic that got leached was 1 ppb in the case of arsenite and 2 ppb for arsenate. "Soil in the affected regions also contains arsenic, typically around 12 ppb of arsenic, which is the background concentration. The amount of arsenic leached from the saturated filter was far less than the background concentration," Prof. Pradeep says. Leaching of arsenic from disposed filters was one of the biggest criticisms by a few researchers who had worked on arsenic filters. Arsenic, being an element, cannot be degraded further to simpler species.

Since the arsenic filter developed by the team has so far been in use at a community level, studies were carried out to test its performance as a domestic water filter. A domestic three-stage filter was developed to remove particulate matter, iron and arsenic. Input water containing 200 ppb of arsenic and 4 ppm (parts per million) of Fe(III) was passed through the filter for a total volume of 6,000 litres (translating to 15 litres of water per day for one year). "The output was below the WHO limit for both arsenic and iron throughout the experiment," he says.

"For a family of five, arsenic-free drinking water can be produced at $2 per year," he adds.

In the course of the development of this technology, he and his former students incubated a company, InnoNano Research Pvt. Ltd. at IIT Madras. In July this year, the company received venture funding to the tune of $18 million. "With this research, a home grown technology appears to be all set for global deployment. Knowledge is no more a limiting factor for solving the arsenic menace," he said.

December 18

Navodaya Times ND 18.12.2016 P-07

गौउत्पादों के वैज्ञानिक पहलुओं पर होगी चर्चा

नई दिल्ली, 17 दिसम्बर (ब्यूरो): आईआईटी में साइंटिफिक वेलिडेशन ऑफ पंचगव्य पर एक कार्यशाला का आयोजन किया जाएगा। इसमें गाय की पांच चीजों मूत्र, दूध, दही, घी और गोबर को तैयार करके बनाए गए उत्पादों की उपयोगिता पर चर्चा की जाएगी। दो दिन तक चलने वाली इस कार्यशाला में पांच विषयों पर विशेषज्ञ बात करेंगे। इसमें विभिन्न 125 से ज्यादा वैज्ञानिक भाग लेंगे। साथ ही नेशनल इंस्टीट्यूट ऑफ टेक्नोलॉजी और अन्य रिसर्च लेबोट्रिज भी इसमें शिरकत करेंगी। वैज्ञानिक और प्रोफेसर्स चर्चा करेंगे कि किस तरह से पंचगव्य और उससे जुड़े उत्पादों को ग्रामीण विकास, मेडिसिन के लिए और खाद्य पदार्थों में इस्तेमाल किया जा सकता है। देश के कई हिस्सों में पंचगव्य से जुड़े उत्पाद बनाए जा रहे हैं तथा आयुर्वेद में कैंसर जैसी बीमारी में भी इसका इस्तेमाल होता है। समझा जाता है कि पंचगव्य से बनी दवा मनुष्य के साथ पशुओं के इलाज में भी काम आती है।

Asian Age ND 18.12.2016 P-14

Low-cost device to detect deafness

SHASHI BHUSHAN
NEW DELHI, DEC. 17

AIIMS INITIATIVE

Concerned with the high prevalence of hearing defects among children, AIIMS, IIT Delhi, and University of Munich joined hands for development of a low-cost deafness detection device among new born and others. Sharing the findings of the study, professor of ENT at AIIMS, Dr Alok Thakar, said that about 30 per cent children in rural and six per cent in urban areas are suffering from hearing problem and around 0.50 per cent of Indians are suffering from some or the other form of hearing problem. The deafness detection device will be developed in the next three years.

According to Dr Samarjit Chakraborty, a professor at the Technical University of Munich in Germany, the first phase of developing the low cost device to detect hearing problem will be completed within three years. "Together all the stakes holders will be working to develop a device that will cost about 100 US dollars and it will be used by even the class teachers to screen students, a routine which is currently done by only specialists and trained professionals. It will help in the early detection of hearing problems and also help in providing proper and timely treatment," added Dr Chakraborty.

The associate professor at AIIMS, Dr Kapil Sikka, said that the new device developed by the joint efforts of AIIMS, IIT Delhi, and the Technical University of Munich, is of high quality and cost effective and which can be handled by even a common man. "Late detection of any problem or disease is the main cause for the high prevalence of deafness. The device to be developed by the joint research will help in large scale screening of deafness or hearing problems in newborns and others. Early detection of any hearing problem helps in early treatment and rehab. Hearing deficiencies can be treated among the newborns by medical procedure or by using hearing device between the age of six and twelve months," said Dr Sikka.

Dr Suresh Sharma, said that social stigma and non-detection of disease at early stage is the main reason. "High prevalence of hearing problem or deafness among rural children is due to malnutrition, infection, and other reasons like injury to the eardrum.

Asian Age ND 18.12.2016 P-04

After Modi rap, IITs, IIMs to hire faculty

NITIN MAHAJAN
NEW DELHI, DEC. 17

Alarmed by over half the faculty positions lying vacant in the IITs, IIMs and NITs, Prime Minister Narendra Modi is understood to have asked the human resource development ministry to fill these up at the earliest.

Sources stated after the Prime Minister's displeasure, the HRD ministry is soon expected to get into an overdrive for filling up these faculty positions on a priority basis.

In another effort to improve faculty position the government has recently reduced the minimum income cut-off for granting work permits to foreigners, clearing the way for central higher education institutions to hire faculty from abroad.

The decision to lower the threshold by over 40 per cent — from more than ₹16 lakh to ₹9.1 lakh a year — came at a Cabinet meeting that Prime Minister Narendra Modi chaired on November 30.

Narendra Modi

Sources stated that Prime Minister is keen that these premier institutes should improve their faculty position immediately so that students are not deprived in any way.

It is understood that over 2,000 faculty positions in the Indian Institutes of Technology (IITs) are lying vacant while over 3,000 positions are to be filled up in the National Institutes of Technology (NITs).

Similarly vacancies at Indian Institutes of Management (IIM) stand at 212.

Out of the sanctioned 5,073 faculty positions in IITs, 2,671 are vacant.

In the NITs across the country, 3,183 are vacant out of 5,428 positions. The sanctioned strength in IIMs is 703. It is learnt that due to shortage of faculty, students have to make do with research scholars, contract, adjunct and visiting faculty as their teachers.

It is also learnt that these institutes are expected to make a special efforts to fill all the reserved posts by conducting special recruitment drive through adverstisements. In the Scheduled Caste and Scheduled Tribe category (non-faculty) posts in IITs, over 350 are vacant, as against the total capacity of around 1,500.

Rajsthan Patrika ND 18.12.2016 P-07

पढ़ाई में फिसड्डी 38 छात्रों को आईआईटी ने किया बाहर

कानपुर @ पत्रिका. आईआईटी कानपुर ने पढ़ाई, प्रोजेक्ट व रिसर्च में फिसड्डी 38 छात्रों को बाहर का रास्ता दिखा दिया। साथ ही 136 स्टूडेंट्स को चेतावनी दी गई है कि अगर प्रदर्शन नहीं सुधारे तो अगले सेमेस्टर के बाद इन्हें भी निष्कासित कर दिया जाएगा। निष्कासित छात्र 30 दिसंबर तक मर्सी अपील (दया याचिका) दे सकते हैं।

अपील सही मिली तो इन्हें दोबारा पढ़ाई का मौका मिल सकता है। आईआईटी में पढ़ाई, अनुशासन, रिसर्च और एक्स्ट्रा करिकुलर एक्टिविटी को आधार मानकर स्टूडेंट्स को पास किया जाता है। बीटेक , बीएस, एमटेक, एमएससी, एमएस, एमबीए, एमडैस, बीएलएफएम, पीएचडी, बीटेक-एमटेक और बीएस-एमएसडुएल डिग्री प्रोग्राम के 38 छात्र इस पर खरे नहीं उतरे। एकेडमिक सीनेट ने इनको टर्मिनेशन का आदेश पारित कर दिया।

60 स्कॉलर को काली सूची में डाला

60 रिसर्च स्कॉलरों ने ग्रेजुएट एप्टीट्यूट टेस्ट इन इंजीनियरिंग (गेट) पास करके पीएचडी में दाखिला तो ले लिया, लेकिन परीक्षा नहीं दी। रिसर्च और प्रोजेक्ट वर्क के दौरान अनुपस्थित रहे। एकेडमिक सीनेट ने इन सबको काली सूची में डाल दिया है। इनकी फीस भी जब्त कर ली गई है। अब इन्हें आईआईटी कानपुर से रिसर्च का मौका नहीं मिलेगा। यह पहली बार है जब 60 रिसर्च स्कॉलर के खिलाफ कार्रवाई की गई

In a first, 3 students of IIT-Kanpur complete their BTech course in just three and a half years

http://timesofindia.indiatimes.com/city/kanpur/in-a-first-3-students-of-iit-k-complete-their-btech-course-in-just-three-and-a-half-years/articleshow/56052687.cms

KANPUR: Three meritorious students of IIT-Kanpur have set a record by finishing their programme in just three and a half years instead of four. This is probably the first instance where students have completed their course before the stipulated duration. These students completed BTech in seven semesters instead of eight.

Two other students of BTech+MTech Dual degree course have also managed to complete their course in nine semesters instead of 10. BTech+MTech Dual degree programme is a five-year course divided into 10 semesters and a student is required to complete the entire course to become eligible to get the degree. These five students managed to complete their entire course in less time than the scheduled period. But these students, despite finishing the course in advance will get their degrees next year when the convocation ceremony would be held.

The senate of IIT-Kanpur which met on Friday applauded the efforts of these three BTech students. The meeting was chaired by IIT-Kanpur Director, Prof Indranil Manna.

The senate members were also overwhelmed to know that as many as 100 students had scored 10 out of 10 in Semester Performance Index (SPI- SPI is score). This has also happened for the first time in IIT-Kanpur, the sources said.

Professor-in-charge of administration at IIT-Kanpur, Prof Sudhir Mishra said that these five students have fulfilled the requirements of being awarded a BTech and BTech+MTech dual degree.

IIT Tech Fest: Soon, a state-of-the-art research centre to study gravitational waves

http://indianexpress.com/article/technology/science/iit-tech-fest-soon-a-state-of-the-art-research-centre-to-study-gravitational-waves-4431217/

The observatory along with the four others in the world will reveal aspects of space unknown to mankind.

India will soon house one of the world's most state-of-the-art Observatory and Research Centre to study gravitational waves, said scientists speaking at the Indian Institute of Technology's (IIT) Techfest.

During a panel discussion at the Tech fest of the institute, scientists involved in the global experiment Laser Interferometer Gravitational-Wave Observatory (LIGO) said that the project in India will help them detect cosmic rays. LIGO is a large-scale physics experiment and observatory to detect cosmic gravitational waves and to develop gravitational-wave observations to advance astronomy.

The observatory along with the four others in the world will reveal aspects of space unknown to mankind, said Bruce Allen, managing director of Albert Einstein Institute, Hannover. Allen was one of the scientists who discovered gravitational waves last year, proving German-American scientist Albert Einstein's century-old theory right.

The Indo-US collaborative project is said to be the most sensitive among the five observatories across the globe: two observatories in the US are fully functional and two others are not associated with LIGO.

A network of such observatories will help understand the source of gravitational waves better, said Rana Adhikari, professor of California Institute of Technology (Caltech) and one of the scientists involved in the development of LIGO-India.

"We will put to rest the mistakes of US detectors to rest while designing LIGO-India," said Adhikari at the panel discussion.

This was the first day of the institute's annual technology fair, which saw a dip in footfall compared to last year.

Among other attractions at the fest was 'Full throttle', where student-made robotic cars raced each other. Student-made robots fought each other out at an auditorium during the Robowars event.

The exhibition of robots, droids and drones was also a crowd pleaser.

While many thronged the exhibition ground to see the mind-controlled drone and the BB-8 droid, the former failed to work for a while. It resumed its functioning later.

December 17

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IIT to discuss benefits of cow products

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NEW DELHI: The Indian Institute of Technology, Delhi, will hold a workshop to propose a national project for the "scientific validation" of Panchgavya, a concoction prepared by mixing five cow products — urine, cow dung, milk, curd and ghee.

The two-day workshop will deliberate on five subjects with 125 scientists from other IITs, National Institute of Technology (NITs) and research laboratories. It will be held on December 18 and 19.

The scientists will discuss ways in which Panchgavya and related products can be used for rural development, medicinal purposes and food items, officials said.

The national brainstorming-cum-consultative workshop on 'Scientific Validation and Research on Panchgavya' is being organised by Center for Rural Development and Technology, IIT, Delhi and supported by Unnat Bharat Abhiyan, a flagship scheme of the HRD Ministry, being coordinated by IIT Delhi.

Professor VK Vijay, head of the centre and national coordinator of UBA, told HT the workshop aims at validating claims on Panchgavya and related products, which exist in the country.

"Scientific validation of Panchgavya and related products and its certification is very much required for its wide application but it has not yet been done. We will look at whether these claims are really effective or not. Once we validate and certify then these products can become much popular," he said.

The five subjects areas are 'Uniqueness of Indigenous Cows', 'Panchgavya in Agriculture', 'Panchgavya in Medicine and Health', 'Panchgavya in Food and Nutrition' and 'Panchgavya For Utilities, Products and Processes'.

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Flying high at 12, Jaipur boy scores big at Tech Fest

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In a sea of first, second, and even final year engineering students, cheers and requests for Arnav Sharma to stand up could be heard, as the winners of Round 1 of the Boeing IIT National Aeromodelling Competition were announced at IIT Bombay's ongoing Tech Fest. 'You deserve to win,' came a few encouraging calls. And why not? At age 12, Sharma's scale model pretty much ruled the sky.

"We had to give power to our planes in 20 seconds, then once they were in the air, we had to cut off the throttle and let them glide. The more glide time, the better. There are three rounds and I've been selected to go on to round 2, which will be held tomorrow (Saturday). Those who win the second round will go on to nationals at IIT Delhi," says Sharma, who participated in three events on Friday, the other two being Full Throttle and Skylark, the winners for which are yet to be announced. He will also be participating in two additional events. "I've participated thrice each at the IIT Kanpur and IIT Bombay tech fests and I always get selected for the second round in aeromodelling and full throttle. It's a tough competition and while my aim earlier was to participate and learn, this year I am hoping to win," says the Class 7 student, who has already won several tech competitions.

12-year-old Arnav Dutt Sharma at the IIT-Bombay Tech Fest in Powai, Mumbai. —HEMANT PADALKAR/DNA

In Full Throttle, a competition in which participants had to build their own IC car and race it with other racers, Sharma was "the only boy who completed the minimum two laps in 40 seconds without any check point (if the car stalled in the middle of the track, racers would have to restart from the nearest checkpoint)".

His father, who is an engineer tells us that his son's skills are in his DNA. That and a lot of YouTubing is what works for him. "Instead of watching Pogo and other cartoons, Arnav spends his time watching aeromodelling YouTube videos. He started learning at a very young age, he's got hurt many times, but we encourage him," says Dr (Prof) Ashish Dutt Sharma, Arnav's father.

Sharma's interest and curiosity in aeromodelling began nearly five years ago when his father told him about some models that his students had made. "It took me a year to build my own model. I've been trying for three years. The first time I participated at an IIT tech fest was when I was in Class 4; I took part in robotics. I started participating in flying only when I was in Class 6 shares Sharma, who studies at Neerja Modi School, in Jaipur.

Sharma started off by watching videos on 'Flying for Beginners', which opened him to a world of transmitters, motors, turbos, propellers, and a whole lot more, including making models of corrugated sheets that "are used in advertisements". While his father showed him the ropes, it wasn't long until Sharma started creating designs based on ideas and prototypes from the Internet, and soon after, tried to design his own models.

Sharma tries to finish his homework in school and spends his time before and after school playing sports—table tennis, swimming, and tennis. "He stood first in class," adds his father. And on Saturdays and Sundays, "when I'm free I spend time flying my aeromodels," says Sharma, who attends coaching classes for two hours a day, three days in a week at Allen Career Institute, which prepares students for the IIT JEE entrance exams.

As if that's not enough, Sharma is also going to attempt making a Guinness World Record for the largest periodic table in January 2017, where "each element of the periodic table will measure 10ft X15 ft. And there are a total 117 elements". Kudos to this kid!

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अगले सत्र से विज्ञान-कला के मिलेजुले दो नए पाठ्यक्रम शुरू होंगे

आईआईआईटी में कला के छात्रों को भी दाखिला

अच्छी खबर

नई दिल्ली | वरिष्ठ संवाददाता

इंद्रप्रस्थ इंस्टीट्यूट ऑफ इंफॉर्मेशन टेक्नोलॉजी (आईआईआईटी) दिल्ली अगले सत्र से विज्ञान और कला विषय के मिलेजुले दो पाठ्यक्रम शुरू करने जा रहा है। दोनों पाठ्यक्रमों में 50-50 सीटें उपलब्ध होंगी। इन पाठ्यक्रमों में विज्ञान के अलावा कला वर्ग के छात्र भी आवेदन कर सकेंगे।

प्रवेश यूकेड के आधार पर मिलेगा : आईआईआईटी दिल्ली के एकेडमिक और एक्सटर्नल रिलेशंस के डीन धीरज सांघी ने बताया कि हम अगले शैक्षिक सत्र से बीटेक इन कंप्यूटर साइंस एंड डिजाइन और बीटेक इन इंफॉर्मेशन टेक्नोलॉजी एंड सोशल साइंस पाठ्यक्रम शुरू करने जा रहे हैं।

बीटेक इन कंप्यूटर साइंस एंड डिजाइन पाठ्यक्रम में प्रवेश यूकेड के आधार पर होगा। यूकेड डिजाइनिंग पाठ्यक्रमों में दाखिले के लिए संयुक्त प्रवेश परीक्षा है, जिसके आधार पर अभी तक इंडस्ट्रियल डिजाइन सेंटर (आईडीसी), आईआईटी बॉम्बे, जबलपुर और गुवाहाटी के डिजाइनिंग पाठ्यक्रम में प्रवेश मिलता है।

यूकेड में 95 फीसदी विज्ञान और 5 फीसदी अन्य संकाय के छात्र आवेदन करते हैं। उन्होंने बताया कि बीटेक इन इंफॉर्मेशन टेक्नोलॉजी एंड सोशल साइंस में आधे छात्र जेईई मेन की रैंक से और आधे छात्र कक्षा 12 के अंकों के आधार पर लिए जाएंगे। कक्षा 12 में गणित में पास होने वाला किसी भी संकाय का छात्र इस पाठ्यक्रम में दाखिले के लिए आवेदन कर सकता है।

● फाइल फोटो

100 सीटें नए शुरू होने वाले दोनों पाठ्यक्रमों में उपलब्ध कराई जाएंगी

95 फीसदी विज्ञान व 5 प्रतिशत अन्य संकाय के छात्र यूकेड में आवेदन करते हैं