

Newspaper Clips

November 26, 2013

IIT-Kharagpur on Nasa radar

Jhimli Mukherjee Pandey, TNN | Nov 26, 2013, 05:41 AM IST

KHARAGPUR: Expertise in radar technology and its successful association with the Indian Space Research Organization (Isro) over the years may soon make the Indian Institute of Technology, Kharagpur, eligible for a partnership with the National Aeronautics and Space Administration (Nasa) for a collaborative research. The presence of two scientists from the premier space research agency in Kharagpur on Monday fanned speculations that IIT-Kharagpur has evolved as the front-runner for the coveted tie-up.

After the success of Chandrayaan, Mangalayaan and the four-year partnership for an oceanic wind measuring radar - Scatterometer - the next most talked about futuristic collaborative project would be the NI-SAR, or the Nasa-Isro radar mission. The radar, which is yet to receive final clearance from the respective governments, is one of the most discussed scientific projects in the country at present, specially because of the precision with which it promises to pre-empt natural calamities.

IIT Kharagpur's aerospace engineering department, through its high-profile [Kalpana Chawla Space Research Centre](#), is already spearheading crucial radar-related research along with Isro. "Such radar technology inputs can be utilized successfully for NI-SAR related research as well," said Alok Chatterjee, a [Nasa](#) scientist who is also a 1973 batch alumnus of the institute. He was accompanied by Paul Rosen, his colleague at Nasa.

The duo on Monday discussed with PP Chakraborty, the director of the institute, the possibilities of the institute starting a NI-SAR oriented collaboration with Isro soon. "This will automatically link up the institute with Nasa. In the NI-SAR research, there will be a radar that will collect data through two bands - the 'L' band that will be managed by Isro and the 'S' band to be handled by Nasa. The data will then be shared for final computations to determine tectonic movements of the earth that lead to earthquakes, tidal wave surge, melting of glaciers and rise in sea level," Rosen explained. "Such research will help in managing disaster to a large extent," he added.

"Since Isro chairman K Radhakrishnan is an IIT-Kharagpur alumnus, it will give added impetus to the collaboration," Chakraborty said.

NI-SAR is a multi-million dollar project that will be partially funded by Nasa and Isro. "If \$73 and \$83 million were spent on the Chandrayaan and the Mangalayaan projects, respectively, NI-SAR should cost around \$100 million," Chatterjee explained.

HT New Delhi

NBCC appoints new Director (Projects)

The Appointment Committee of Cabinet of the government, has appointed S.K. Chaudhary as the new Director (Projects) of National Buildings Construction Corp.



(NBCC), a Schedule 'A' mini ratna PSE under the Ministry of Urban Development. He is a civil engineering graduate from DCE and a Masters in Management from IIT Delhi. Prior to this new assignment, he has served HUDCO as senior ED.

Plan to create 278 new universities

Staff Reporter

The Ministry of Human Resource Development (MHRD) plans to create 278 new universities and 388 colleges, besides pushing 450 autonomous colleges to achieve the status of universities.

Ashok Thakur, secretary, higher education, MHRD, said an average of 300 colleges are affiliated to each university.

Besides the administrative burden, the number weakens varsities' focus on research and reduces their ability to maintain quality.

"We cannot do away with the affiliation system overnight. Our plan is to reduce the average number of affiliated colleges to 100," Mr. Thakur said

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New guidelines for private varsities in the pipeline

Staff Reporter

The Ministry of Human Resource Development (MHRD) is preparing to tighten the screws on private universities, which are set up by an Act of Parliament.

As of date, the government has limited say in how they are run.

The University Grants Commission (UGC) is reviewing the Establishment and Maintenance of Standards in Private Universities Regulations, 2003, Ashok Thakur, secretary, higher education, MHRD, said on Monday.

The new rules will be “akin to those for deemed universities as the present regulations are for private universities weak”.

The new rules will be in the public domain in a month’s time, he added.

The ‘deemed university’ tag does not come easy. Though applicants are many, only well-established institutions with a good academic and administrative record are being given the status.

Mr. Thakur was in Bangalore for the all-India conference of higher education ministers on ‘RUSA – a way forward’ in Bangalore. RUSA stands for Rashtriya Uchchatar Shiksha Abhiyan.

Addressing the gathering, he also warned State governments against “falling into the trap of allowing people with no background” in the education sector to promote private universities. “Instead of picking rank outsiders, promote autonomous colleges. South India, especially, has a tradition of autonomous colleges,” he said.

Autonomous universities

Mr. Thakur said there is some ambiguity on the 45 autonomous universities across the country, which have the power to award degrees because they are still subject to an annual inspection from affiliating universities. “In future, an inspection may take place every five or 10 years. The guidelines are being framed and will be ready in about six months,” he said.

NARA to be set up as separate wing under UGC

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State can have 15 more varsities: Deshpande

Staff Reporter



Union Minister for Human Resource Development M.M. Pallam Raju and Minister for Higher Education R.V. Deshpande greeting delegates from other States at the inauguration of the All-India Conference of Higher Education Ministers in Bangalore on Monday.— Photo: K. MURALI_KUMAR

Going by the Ministry of Human Resource Development's plans to put a cap of 100 affiliated colleges per university, Karnataka can have 15 more universities, Higher Education Minister R.V. Deshpande has said.

Speaking to reporters during an all-India conference of Higher Education Ministers here on Monday, he said there were 17 State-run varsities in Karnataka, of which 15 were affiliating universities. "There are 3,350 affiliated colleges. At that rate, we can have 15 more universities here," he explained.

However, on the proposal to divide one of its biggest varsities, Bangalore University, which has made no headway, he said work was on to look into the suggestions made by the Chancellor and Governor H.R. Bhardwaj.

However, he also said the amount allocated for helping autonomous colleges become universities may not be sufficient. "Karnataka has many universities with more than 300 to 700 colleges affiliated to each university. Rashtriya Uchchatar Shiksha Abhiyan (RUSA) is a wonderful opportunity to create more universities. However, the amount of Rs. 55 crore per university may not be sufficient. Autonomous colleges are eligible to get support of up to Rs. 105 crore for upgradation to become a university," he said.

He also urged for better accountability in State universities. "Autonomy without accountability has no meaning and purpose," he said.

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CO₂ could warm Earth for centuries

Washington: Even if carbon dioxide emissions came to a sudden halt, the greenhouse gas already present in the Earth's atmosphere could continue to warm our planet for hundreds of years, a new study has found. The study led by Princeton University researchers suggests that it might take a lot less carbon than previously thought to reach the global temperature scientists deem unsafe.

The researchers simulated an Earth on which, after 1,800 billion tonnes of carbon entered the atmosphere, all carbon dioxide emissions suddenly stopped. Scientists commonly use the scenario of emissions screeching to a stop to gauge the heat-trapping staying power of carbon dioxide.

Within a millennium of this simulated shutoff, the carbon itself faded steadily with 40% absorbed by Earth's oceans and landmasses within 20 years and 80% soaked up at the end of the 1,000 years. By itself, such a decrease of atmospheric carbon dioxide should lead to cooling. But the heat trapped by the carbon dioxide took a divergent track. After a century of cooling, the planet warmed by 0.37°C during the next 400 years as the ocean absorbed less and less heat. ■

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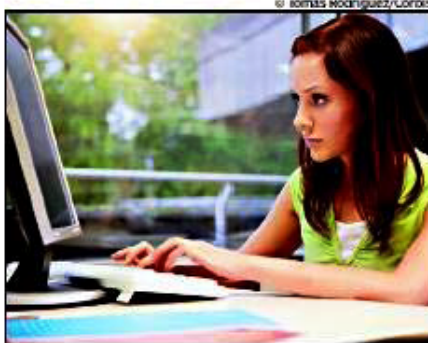
Soon, PCs with common sense

A New Software To Help Teach Computers Intelligence Via Pictures

Washington: Researchers, including those of Indian-origin, have developed a new programme that helps computers to learn common sense through pictures, enabling them to scour the internet and label images on its own.

The computer program can make associations between things to obtain common sense information that people just seem to know without ever saying — that cars often are found on roads, that buildings tend to be vertical and that ducks look sort of like geese.

The computer program called the Never Ending Image Learner (NEIL) is running 24 hours a day at Carnegie Mellon University, searching the web for images, doing its best to understand them on its own and, as it builds a growing visual database, gathering common sense on a massive scale. NEIL leverages recent advances in computer vision that enable computer programmes to identify and label objects in images, to characterize scenes and to recognize attributes, such as colours, lighting and materials, all with a minimum of human supervision.



The computer program can make associations between things to obtain common sense information that people just seem to know without ever saying

In turn, the data it generates will further enhance the ability of computers to understand the visual world.

Based on text references, it might seem that the colour associated with sheep is black,

but people — and NEIL — nevertheless know that sheep typically are white.

"Images are the best way to learn visual properties," said Abhinav Gupta, assistant research professor in Carnegie Mellon's Robotics Institute. "Images also include a lot of common sense information about the world. People learn this by themselves and, with NEIL, we hope that computers will do so as well," said Gupta. A computer cluster has been running the NEIL programs since late July and already has analysed three million images, identifying 1,500 types of objects in half a million images and 1,200 types of scenes in hundreds of thousands of images.

It has connected the dots to learn 2,500 associations from thousands of instances. Abhinav Shrivastava, a PhD student in robotics, said NEIL can sometimes make erroneous assumptions that compound mistakes, so people need to be part of the process.

A Google Image search, for instance, might convince NEIL that "pink" is just the name of a singer, rather than a colour. ■

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Startup by Indians raises million dollars

Ishan Srivastava | TNN

Chennai: How to teach computer programming to kids as young as five years old? Play-i, a company founded by two Indian IIT alumni, a marketing executive from Pakistan and a designer from Australia, is trying to solve the problem by introducing two robots which can be programmed by children using handheld devices, like an iPad.



Vikas Gupta

The robots, Bo and Yana, have managed to raise more than a million dollars, four times the original need, in the last four weeks, in a crowdfunding campaign by Play-i. The original target of \$2,50,000 was achieved in just 3 days. Based in California, the company last week added India to the list of locations it will start shipping in summer 2014.

Started in November 2012, Play-i is the brainchild of Vikas Gupta, an IIT Kanpur

MEET BO & YANA

► Bo (left) and Yana were not the only names considered for the robots. Maru and Ichi, the Japanese for 0 and 1 (which comprise binary numbers) were close to be finalised. But even geeks told us that "it's too geeky," says Saurabh Gupta

► The team tried many colours before it settled on the blue and orange. In their testing, if the color was say, black, girls would lose interest very fast while boys would do same with colours like pink. "We wanted the colours to be gender neutral," says Greaves



alumnus and who earlier headed consumer payments at Google and also led Amazon Payments. The idea is based on twin assumptions — that knowing programming better than others can be an edge in tomorrow's workplace when technology will pervade every industry and that programming can be taught to kids as young as five years old. Earlier this year, Bill Gates, Facebook CEO Mark Zuckerberg, and Twitter co-founder Jack Dor-

sey argued in a video that computer programming should become part of school curriculum at an early stage. While the company has exceeded the crowdfunding target, how far will they be successful in delighting parents and kids remains to be seen.

While these are not the first programmable robots in the market, they are different since they target the age group 5-8 years while most other target 10+ years.

The two robots can be connected to a portable device through bluetooth and kids can command the robots to do anything — run, play music, pick objects — by merely swiping the touchscreen. The robots are instructed using visual programming languages like Scratch and Blockly where kids don't need to write or remember code in text form. Instead, they drag and put together blocks or other visual tools in a variety of logical orders to create programs.

The robots can also sense each other's presence. Bo (derived from Robot) is positioned as an 'explorer', while Yana (short for 'You Are Never Alone') is a 'storyteller'. While the explorer Bo can wheel around, Yana is stationary but can roll like a football due to its shape. Together, they are priced \$189 (around Rs 11,000).

The founding team is diverse and met each other through common friends. While Vikas Gupta is a computer science graduate, Saurabh Gupta did electrical engineer-

ing from IIT Delhi and looks after software and hardware part of the robots. He led the iPod software team at Apple between 2006 and 2012. The product designer, Mikal Greaves from Australia, was VP of engineering at Frog Design with extensive experience in building consumer products including ones for children. "The only non-techie in the team" Imran Khan, who studied at Punjab University in Lahore and has headed marketing at firms like E-loan and Symantec, and is the marketing head here.

The team spent the first three months on a product which failed, and after another three months, Bo and Yana were born. "Our initial plan was to have only one robot Bo, but feedback from children changed that. They wanted their robots to fly like helicopters and leap like kangaroos. We needed something which can understand their gestures," says Vikas Gupta. Thus was born, Yana which can be programmed by actions like clapping or shaking.

PM insisted I continue as minister: Pallam Raju

Staff reporter

Minister for Human Resources Development (HRD) M M Pallam Raju, who had tendered his resignation in the wake of Union Government's decision to create Telangana, said he will "continue to do his work" as the Prime Minister had insisted that his ministry was an important one.

He was responding to a query on the status of his resignation from his post in the light of the Union Government's decision. "My three colleagues and I had submitted our resignations. We were reflecting what the public in our area felt. But, the Prime Minister said my ministry was important. I will not let the ministry suffer because of the Minister," he said during an interaction with presspersons on the sidelines of an All India Conference of Higher Education Ministers in Bangalore on Monday.

However, he said he had refused to withdraw his resignation and instead said: "I will continue to do my work."

Keywords: [Pallam Raju](#), [Telangana agitation](#), [Andhra Pradesh bifurcation](#), [Congress MPs resignation](#)

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HT Indore

Continuing in office at PM's insistence: Pallam Raju

BANGALORE: Union HRD minister MM Pallam Raju on Monday said he is continuing in office at the insistence of PM Manmohan Singh and maintained that "there is a limit beyond which he cannot resist" creation of Telangana.**HTC**

PM insisted I continue as minister: Pallam Raju

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Pallam Raju bats for higher investment in education

Public and private investment in higher education should be stepped up substantially and resources should be utilised optimally to scale capacity and improve quality, Union Minister for Human Resource Development Pallam Raju said Monday.

"State investment on higher education should be raised to 25 percent from 18 percent of the budget on education or to 1.5 percent from 1.12 percent of the Gross Domestic Product (GDP), as an increase of 0.38 percent means an additional spending of Rs.25,000 crore by the central and state governments," Raju said at a day-long all-India conference of higher education ministers here.

Referring to the 12th five-year plan (2012-17) thrust on higher education, Raju said under the new initiative in higher education - Rashtriya Uchchar Shiksha Abhiyan (RUSA) - the government would provide greater autonomy to universities and colleges for equity-based development and improvement in teaching and research.

"We have proposed strategic funding of higher education to make a difference in the endowment for the sector in the states across the country," Raju said.

Highlighting the benefits of RUSA, Raju said about 300 universities and 8,500 colleges across the would be covered under the scheme with 90 percent of funding from the central government for most needy states like Himachal Pradesh, Jammu and Kashmir, northeastern states and Uttarakhand and 65 percent for other states and Union Territories.

Addressing the conference, Karnataka Minister for Higher Education R. V. Deshpande said the states should draw perspective plan to qualify for funding under RUSA as the scheme was an opportunity to set up more universities.

"RUSA funding should be used for introducing innovative projects in higher education. There should be more regular meetings and interaction between the central government and states to overcome hurdles in implementing the scheme," Deshpande observed.

In this context, Deshpande said the state had achieved a gross enrollment ratio of 26 percent in higher education.

"We seek more weightage in the funding under RUSA so that higher education in the state can reach newer heights in quality with learning eco-systems," Deshpande added.

Minister of State for Human Resource Development Shashi Taroor, Minister of State for Primary Education Jatin Prasada and officials participated in the conference on the UPA government's flagship programme.

Varsities failed to follow HC orders on reforms

Nikhila Henry, TNN | Nov 26, 2013, 01:09 AM IST

HYDERABAD: All the universities in the city ignored an Andhra Pradesh high court order dated April 30 this year asking administrations to implement measures recommended by a committee to prevent rampant suicides by students. Alarming, even the [University Grants Commission \(UGC\)](#) ignored the court order even as the number of students who ended their lives climbed. In the latest case, M Venkatesh, a research scholar at the University of Hyderabad, killed himself on November 24, prima facie due to not being allotted a research guide.

The committee, hosted by [Nalsar University of Law](#), had recommended changes in curriculum and the examination system to reduce stress among students. It had also suggested that the UGC must set up a task force to probe the suicides on campus. "The task force should be comparable to anti-ragging committees to monitor academic and emotional distress," the report had said.

The nine-member committee, which had members from the UGC, the state government and several city varsities, had also asked universities to set up student grievance committees at the department level to examine any matter of detention or expulsion of students and resolve issues internally. The varsities were also expected to put in place university ombudsmen to hear appeals against the decision of student grievance committees in accordance with the central government GO No.12.

"We felt that students who get punished by authorities could come under stress and succumb to pressure. To prevent this, internal monitoring bodies had to be set up," said Faizan Mustafa, vice-chancellor of Nalsar, who chaired the committee. He said all the universities were informed of the measure to be taken as per the high court directive.

One of the recommendations was to set up a restorative justice centre at Nalsar to look into all student disputes to prevent expulsion or other punitive measures that would create stress. "The centre was supposed to conduct sensitization programmes in all universities. So far, we got invitation only from UoH," Mustafa said.

The committee had also recommended that all universities should ensure that grievance redressal bodies have enough representation from people belonging to SC/ST/OBC and minority communities as most suicides had been by students belong to these communities. "In my observation, there should be a change in the way teaching is happening in higher educational institutions. Universities should make sure that they stick to fair academic schedule, be it allotment of guides or conducting course work and examinations," the Nalsar VC said.

Examinations should be more of a testing tool than a compulsory learning process, he added. "Students should be given enough chances to clear the examinations so that the learning process becomes less stressful," said Mustafa.

Meanwhile, in UoH, a committee headed by Prof V Krishna was formed to look into the death of M Venkatesh.

It's boom time for the Indian engineer

R.K. SHENOY



R.K. Shenoy

With the advent of Internet of Things (IoT) and approximately 6.5 billion connected devices predicted by 2016, we will see a lot of technology-driven advances. Intelligent machines, mostly driven by Electronic Control Units (ECUs), will drive this innovation. Talking about the auto industry in particular, digital electronics are now the driving force behind 80 per cent of all innovations. Key functions are already controlled by ECUs such as engine management, infotainment/navigation systems, ABS, ESP, Park Assist and so on.

Factors that contribute to opportunities for India are: firstly, Asia seeing a higher growth rate compared to mature markets in Automotive Electronics. There are a lot of reengineering activities taking place in India. Being a significant market, engineers in India have the opportunity to be noticed on a global platform. Their products have the potential to impact global markets.

The second factor is the availability of choice for the Indian consumer. As the cost of ECUs are driven down, the consumer in India can afford more electronic features in their cars at the same price point. Indian engineers have the opportunity to design features to address specific needs of the local market.

Automotive trends

As India's road infrastructure develops, three automotive trends that are on the upward curve in Europe that will possibly trend in India in a few years are: Green Wave, Platoon Automobiles and the Self-driving Car. All of these trends are anchored by ECUs.

The Green Wave is a controlled activity in which a series of traffic lights (usually three or more) are coordinated to allow continuous traffic flow over several intersections in one direction.

Any vehicle travelling along with the green wave (at a specified speed) will see a progressive cascade of green lights, and will not have to stop at every intersection. This allows higher traffic loads, and reduces noise and energy use (because less acceleration and braking is needed).

Grouping vehicles into platoons is a method of increasing the capacity of roads. Platoons decrease the distance between cars using electronic, and possibly mechanical, coupling. This capability would allow many cars to accelerate or brake simultaneously. Instead of waiting after a traffic light changes to green for drivers ahead to react, a synchronised platoon would move as one, allowing up to a five-fold increase in traffic throughput if spacing is diminished that much. This system also allows for closer headway between vehicles by eliminating reacting distance needed for human reaction.

Robotic cars

An autonomous car, also known as a driverless or robotic car is a vehicle capable of fulfilling the human input capabilities of a car. It is capable of sensing its environment and navigating without human input. Demo robotic cars

already exist and will be a reality in 10 years for series introduction.

Electronics will only increase in the car, thereby increasing the intelligence quotient of the car. The car will become an active, transmitting and receiving node of information and data. Standardisation and data security will be the new challenges. Collaboration between the original equipment manufacturer, suppliers, government and consumers will be the order of the day to speed up introduction of highly innovative solutions in the market. Autonomous driving will be the new reality. This is applicable globally, and to India too, but with local customisations. All of this will be driven by technology – the electronics in the automobile. This is where an enormous opportunity presents itself to the Indian engineer.

R.K. SHENOY

(*The author is Senior Vice-President, Robert Bosch Engineering and Business Solutions Ltd .*)

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IIT residents & students demanding proper sheltered bus stops

By Staff Reporter

Pic: Pramod Chavan



The Indian Institute of Technology located in Powai on JVLR's ADS Marg is one the oldest local habitation dating back to 1950. It precedes Hiranandani Gardens and is a jewel of Powai.

With the JVLR project complete, FOBs done, Sound barrier erected on the campus boundary wall; what is amiss is bus shelters along the stretch of IIT campus on the ADS Marg.

Students and residents of the campus lament that they have no shelter at the bus stands here. They have to brave the sun and monsoon waiting for buses. Why this step-motherly treatment when BEST is erecting the new all steel shelters at other places in Powai.

When 'Planet Powai' spoke to Nishit Bandopadhyaya, an IITian he recalled, "I remember 30 years back when Indira Gandhi, the then PM visited IIT she asked the students that if they had any problem. The students told her that they don't have any railway station nearby for local trains. It was then she ordered the authorities to come up with a railway station near to IIT and thus Kanjur Marg railway station was built in response. Today, it is a different story that when IIT Powai has become an international seat of learning that we don't have proper shelters. Does it always take a PM to come and direct the 'Babus'?"

He further told, "It is ironic that all along JVLR proper bus shelters have been provided by BEST at L&T, Powai Vihar, Transocean Hiranandani, Panch Kutir etc. Why have they singled out the stretch along IIT. It is painful to wait for buses in sun and rains."

When we spoke to the traffic dept. of Mumbai Police they said that, now the service roads are complete and we have no objection for BEST to put up bus shelters.

The local corporator's office too came on record revealing that they too have received a number of complaints from locals to this problem. Chandan Sharma has already sent letters to BEST to provide bus shelters at this stretch of IIT campus much to the relief of its students and teachers.

'Planet Powai' tried to contact the local MLA Naseem Khan to get his comment but could not establish contact with him

<http://www.planetpowai.com/news/2411201302.htm>