Bhubaneswar IIT is more 'trusted' than its clones at Kanpur, Mumbai: Study

Ashok Pradhan, TNN | Sep 6, 2014, 09.36AM IST


BHUBANESWAR: The Indian Institute of Technology at Bhubaneswar (IITBBS) is a "more trusted" brand compared even to the first-generation IITs at Kanpur and Mumbai, a latest survey says. Educationists, however, have expressed serious doubts about credentials of the survey.

Trust Research Advisory (TRA), a Mumbai-based brand intelligence company, has placed IIT-Bhubaneswar at 17th rank ahead of IIT Kanpur (36th) and IIT Mumbai (57th) based on the trust factor. "We have our own matrix to measures trust. The rating was done after considering 61 attributes of the institutions surveyed among a sample size of 8,000 people across 40 cities over a period of four months earlier this year," said TRA research head Sachin Bhosle.

"It is always gratifying to know that our institute ranks higher among peers. Rating by the agency is based upon its own independent criteria and assessment, which we are not privy to," said IITBBS registrar B K Ray.

TRILOCHAN Pradhan, who had headed the state government appointed taskforce for higher education in 2010 said the survey looks rubbish. "It is just not possible that the still upcoming IITBBS can be more trusted than IITs at Kanpur and Mumbai. The findings look absurd. The survey method may be either wrong or motivated. It's a joke," he said.

There are 20 institutions from Odisha in the 1000-list, including 14 from Bhubaneswar and three each from Cuttack and Rourkela. They include Silicon Institute of Technology (125), Trident Group of Institutions (137), Xavier Institute of Management (144), Indira Gandhi National Open University Bhubaneswar centre 308, BJB Autonomous College (351), Rajdhani College (482), DAV College (503), Regional College of Management College (604), Amity Global Business School (726), Orissa Engineering College (742), Krupajal Engineering College (750) and ICFAI Business School (879). From Cuttack, Ravenshaw University (205), DRIEMS (492) and JKBK Government College (584) also find places in the list besides IIPM Rourkela (972).
National e-library in the offing


New Delhi: Human Resource Development Minister Smriti Irani Friday said the government would soon launch an online library to make study materials available to all.

"The prime minister has highlighted that modern day medium of growth is connectivity and the use of information and communication technology (ICT) in teaching has the potential to change teaching in a major way," Irani said.

"I am happy to announce that we at the ministry of human resource development (MHRD) will soon launch the 'National e-library' that will make learning materials freely available to everyone even in remote areas," she said while speaking at a function honouring teachers with national awards.

The National Electronic Library (NEL) is a digitised library, which will be device independent. It will be accessible to every citizen of the country.

Irani said: "This (e-library) will also enable teachers to learn continuously even when they teach. In fact, an educated society is one where we form a learning connectivity."

Urging teachers to dedicate time for research activities, she said: "This is increasingly important part of formal learning. Critical reasoning and fearless interrogation are requisites for our democracy, and schools are the most important place for learning that fosters these qualities."

The minister also pointed out that teachers have great responsibility towards students.

"School is a first formal socialising experiences of children and schools reflect deeply embedded cultural values. The teacher has impact on young lives, so the teachers have greater responsibility and they have to be sensitive to child's natural learning processes," she said.
Henry Ford famously said: “If I had asked people what they wanted, they would have said faster horses”. Luckily for drivers they weren’t asked and car manufacturers have been audaciously reinventing the wheel. As Mark Fields, CEO of Ford Motor, pointed out, a car is no longer just a means of getting from point A to point B. “Some may view a car as a cell phone on wheels, a web portal on wheels, or their largest wearable.” Fields was addressing an audience of futurists, engineers and designers who were attending the Ford Trend conference, an annual event in Dearborn, Michigan, to discuss what the future of the car.

Tech in the driver’s seat

Ironically, not ‘driving’ a car is high up on the wish list for the future. Engineers at Google, Ford, BMW and Audi are busy developing fully-automatic cars. At the Ford test track in Dearborn, one can sit behind a vacant driver’s seat and watch the robotic van (still in development stage) move almost completely on its own. There is a pre-programmed module, GPS, sensors, radio and an engineer overseeing all this in a control tower: Another group of Ford engineers was showing off a car with fully assisted parking aid. At the push of a button, it can squeeze into a parallel spot. All the driver needs to do is to follow instructions of the interactive system.

Cars that talk

Vehicle-to-vehicle communication or V2V, say car experts, is the next big thing. V2V means cars talking to each other, warning each other of impending dangers. The technology runs on a dynamic wireless exchange of data between nearby vehicles that is expected to substantially cut down crashes. Ford recently launched a three-year-long study in collaboration with a Russian university to learn how robots on earth and in space and improve V2V.

While V2V is still in experimental stages, car makers already are going beyond airbags and seat belts when it comes to safety. Volkswagen Jetta has features like blind spot warning and rear traffic alert. Forward collision warning is another safeguard with Jetta as well as Honda Accord. Ford’s 2015 Edge offers many similar features including lane-keeping warning. If you veer out of your lane, the accelerator vibrates to warn you.

Green mobility

Today any talk of the car of the future is incomplete without the sustainability debate, and car manufacturers know it. Car makers are relying on recycled materials, hybrid and electric engines to build environmentally sustainable vehicles. Between 2000 and 2012, various water conservation efforts at Ford’s manufacturing plants resulted in a 62% reduction in global water consumption, noted Todd Walton, manager at Ford’s environmental quality office.
A teacher's word brings change in the life of a student

My dear students and friends from different schools all over the country and those present in this function, Today is Teachers’ Day. Generally, this inspiring chapter is losing its importance in some places, but there would be many schools where September 5 is not remembered in this form. This has become limited to giving awards to teacher and having ceremonies. Need of the hour is the importance of a teacher in our social life. Till the time we don’t accept this, neither will we feel the honour for a teacher nor be successful in changing the new generation through the medium of teachers. That is why there is a need to update and re-energize it.

There is a need for debate on the reasons why many bright students do not want to become teachers. All of us have to find the answer to this question. In a global context, it is believed that there is a great demand for teachers and good teachers are in short supply. India is a young nation. Can’t India dream of exporting teachers of high calibre? Can’t we instil this desire in the heart of today’s children that I will become a great teacher and will contribute in the progress of my country? How do we rekindle this feeling?

Ask any great person in the world about success in life, and he or she will definitely tell two things. First is this my mother’s contribution and second, my teacher’s contributions. We get this from about almost every great personality. There was a time when this feeling was there for a teacher. If there was a respected figure in the entire village, it was the teacher. His word was final. Gradually, this situation has changed considerably. However, we can establish it once again.

A child, you might be having many questions. Many of you must be finding it difficult to enjoy holidays and will be eagerly waiting for Monday, so that you can go and tell the teacher that the whole week was done on Sunday. Things which can’t be told to our mother, father and sister, one feels so eager to tell our teacher. This is the level of closeness. The same teacher changes his/her life. A teacher’s word brings major change in the life of a student. I know of many students who talk like their teacher, dress like their teacher, eat like their teacher, he is her hero. This is a stage that needs to be enlighten the children in our new generation. There is a saying in Chinese culture- those who think only for a year, they sow food grains, those who think for a decade, they plant fruits. But those who think for generations, they prepare humans. It means to educate, to imbibe culture and to prepare someone for life.

I have said on August 5th that I want no school to remain without toilets for girls by the end of this year. A number of schools do not have toilets for girls. Some schools do not have toilets for boys, too. Many may feel that this job is not worthy of a prime minister’s attention. But when I went into the details, I found that this is a highly important job. I was there in Japan in the first half of 2018. An Indian family met me, the wife was Japanese and the husband, who was Indian came to me and said ‘I heard your Independence Day speech. You are insisting on cleanliness. This is a rule here in Japan that all of us, teachers and the students, together clean the school yard. Even the toilets are cleaned collectively. This is part of character building in our school. Why is it not so in India?’ I said that we have to go back and ask the media people, otherwise we will run for 24 hours. Once, when I was in Gujarat, there was a programme on TV that said school children were cleaning the school yard. What kind of a school was that, what type of management was that? We need teachers, exploitation of children? Anyway, I am glad that event. How will we make this a national trend. This can happen.

I call upon the senior people of the country. You may be doctors, lawyers, IAS officers or IPS officers. Can’t you identify a school nearby and volunteer to teach there for at least one period after deciding on an appropriate subject with the school? Howsoever senior an officer you are, why can’t you or she spend some time once in a week with children and teach them something. Why can’t we convert nation building into a people’s movement?

The importance of technology is increasing day by day. I will request all the teachers that if something is needed to be learnt, it should be learnt. We should keep on learning irrespective of our age being 40, 45 or 50. We are living with children who are growing in the age of technology. We should not keep them deprived from this. That will be a social crime.

Sometimes I ask this from children. I want to ask you also a question, will you reply? How many children sweat profusely four times in a day? How many children do not have toilets for girls by the end of this year? How many children do not have toilets for boys, too? How many children are not allowed to go to school by their parents?
New online courses from NPTEL

http://timesofindia.indiatimes.com/Home/Education/News/New-online-courses-from-NPTEL/articleshow/41846383.cms

NEW DELHI: NPTEL has launched two new online courses on 'Basic Electrical Circuits' and 'Introduction to Programming in C'. Students interested in enrolling can log on to https://onlinecourses.nptel.ac.in/.

Registration for the course opened on September 1 and is free. A nominal fee is charged only for the examination.

'Basic Electrical Circuits' is a 12 week course conducted by Dr Nagendra Krishnapura from IIT Madras. The certificate will be awarded by IIT Madras with NASSCOM. The course deals with analysis techniques that can be applied to all electrical circuits.

'Introduction to Programming in C' is being offered by Dr Satyadev Nandakumar from IIT Kanpur and is a 10 week course. Certification for the course comes from IIT Kanpur and NASSCOM. The course emphasizes solving problems using the language and introduces standard programming techniques.

The portal offering IIT courses along the lines of MOOCs (massive open online courses) was launched in February this year. The portal is the latest offering from NPTEL (National Programme on Technology Enhanced Learning) which is a joint initiative of the IITs and IISc, funded by the Ministry of HRD,
Government of India. NPTEL has been enhancing the quality of Engineering education in the country by providing e-learning through free online courseware for the last 10 years. Administration of the NPTEL programme and maintenance of the website is done by IIT Madras.

The first of these courses on 'Programming, Data Structures and Algorithms' was successfully completed and 1,150 certificates will be awarded by IIT Madras with NASSCOM.
**Smriti: Higher institutes must have courses on rural uplift**

**EXPRESS NEWS SERVICE**
**NEW DELHI, SEPTEMBER 7**

SUGGESTING that institutes of higher learning start courses on rural development, Human Resource Development Minister Smriti Irani on Sunday said all technical institutes must be connected to villages.

“Our aim in the coming five years is that all technical institutions are connected to the villages and work for the development of the country,” she said, speaking at a workshop on ‘Unnat Bharat Abhiyan’ organised by IIT Delhi.

She said that the PM’s call to all MPs to develop a model village in their constituencies will also encourage more technical institutes to engage with villages and provide scientific inputs to realise the mission.

She observed that higher technical institutes today are far removed from rural India and suggested high-quality rural development centres should also be started in centrally-funded institutes.

“With this we can build a big network of educational institutions who provide programmes on rural technology. These institutions can understand the problems faced by villages and can address them and disseminate rural technology to the villages by becoming a wing of higher educational institutions,” she said.

Around 5,000 to 6,000 technical institutes can join the programme on rural development, Irani said.

“One of the positive outcomes would be that the educated youth can develop links with villages. This would also bring about a change in the education scenario... Through this initiative, youth would get employment opportunities in villages,” she added.
आईआईटी की परीक्षा में जयपुर ‘एडवांस’

लखनऊ/नोएडा: आईआईटी में दाखिले के लिए हुई जेईईए एडवांस परीक्षा में संख्या के मामले में जयपुर ने बाकी शहरों को पीछे छोड़ दिया है। जयपुर से 10,116 अभ्यर्थी परीक्षा में शामिल हुए, जिसमें 2,780 अभ्यर्थी सफल हुए। जयपुर से 32.77 प्रतिशत छात्र-छात्राएं उत्तीर्ण हुए।

पास प्रतिशत की बात करें तो उदयपुर से 253 अभ्यर्थियों ने जेईईए एडवांस में सफलता हासिल की है। यहाँ से परीक्षा में 772 अभ्यर्थी शामिल हुए थे। उदयपुर के बाद सफलता प्रतिशत के मामले में नोएडा दूसरे नंबर पर है। इसके बाद तौंबे, चौथे और पांचवें नंबर पर नोएडा, हैदराबाद और जयपुर शहर हैं। आईआईटी में दाखिले पाने की होड़ में लखनऊ के अभ्यर्थियों का औसत प्रदर्शन ही रहा है।

परीक्षा में शामिल होने की संख्या के मामले में लखनऊ देश भर में सातवें नंबर पर रहा। लखनऊ से 3,064 अभ्यर्थियों ने परीक्षा में हिस्सा लिया, जिसमें 631 स्टूडेंट्स सफल रहे। परीक्षा में पूर्वोत्तर राज्यों के जनपदों से सफल होने वाले अभ्यर्थियों की संख्या काफी कम है। गंगटोर के से तो एक भी अभ्यर्थी आईआईटी तक नहीं पहुँचा।

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Indian Institute of Science has a bold plan to reverse slide in its global ranking

Powered by a series of big-ticket corporate donations, the Indian Institute of Science hopes to be ranked among the world's best universities.

http://scroll.in/article/677593/Indian-Institute-of-Science-has-a-bold-plan-to-reverse-slide-in-its-global-ranking

The Indian Institute of Science in Bangalore is the only Indian university to feature in the Academic Ranking of World Universities conducted by the Shanghai Jiao Tong University, though it has fallen close to a hundred places, dropping from just below 300 on the list last year to almost 400 this year.

The ARWU’s ranking criteria includes the number of Nobel Prizes and Fields Medals won by staff and alumni, and their research output. The IISc’s score on one important metric – highly-cited researchers – has dropped drastically this year.

A change in the ARWU’s method of selecting highly-cited researchers could be responsible for this drop in score. But the fall in rank is perhaps warranted: there has been a steady decline in the number of papers published by IISc staff in the leading journals Nature and Science over the years.
The university has also fallen in other global rankings, such as the one conducted by independent research organisation Scimago in Spain.

A former associate director of the institute, N Balakrishnan, feels that there has been no drop in quality, and that the IISc’s standing among world universities is taking a hit because of that large number of schools that are suddenly entering the ranking system. Despite this, he says, the IISc’s administration has been concerned about its decline in these rankings, and has been taking corrective steps for more than five years.

The number of students at the institute has risen from 2,000 to 3,600, with a majority of students on the PhD track. “My feeling is that this will soon show up in our ranking as well as publications,” said Balakrishnan. “From input to output there is a delay of about five years.”

Funding has also been pouring in. In January, former Infosys CEO Kris Gopalakrishnan donated Rs 220 crore to build a brain research centre close to the IISc campus. A trust run by Gopalakrishnan will fund the centre for 10 years. The brain center conducts brain-computer interface research and studies dementia, a rising threat in India. In addition, Robert Bosch recently gave the institute Rs 110 crore.

The IISc has also received Rs 75 crore from the Tata group for neuroscience research. Earlier this month, the Infosys foundation gave IISc Rs 20 crore for research in mathematics and physics. According to Balakrishnan, Infosys is helping the IISc pay visiting professors salaries comparable to earnings in the US, helping it attract the best teaching talent.

Balakrishnan believes these measure will start showing results by the academic year 2016-‘17. He hopes this will power IISc to the top 100 universities in the world, and among the top 10 schools in Asia.
“It is not the lack of resources, it is not the lack of understanding of what has to be done,” he said. “It is simply that the institution needs that much time to grow.”

**IITs set to take on UGC directives**

[http://www.telegraphindia.com/1140908/jsp/frontpage/story_18811453.jsp#.VA11YWO2q4s](http://www.telegraphindia.com/1140908/jsp/frontpage/story_18811453.jsp#.VA11YWO2q4s)

New Delhi, Sept. 7: The Indian Institutes of Technology are preparing to spearhead a unified campaign for academic independence of universities across the country to counter higher education regulator UGC’s directives on the design and duration of courses and entry qualifications.

Several directors of the premier tech schools said they plan to argue in the IIT Council that such academic matters should be decided by individual institutions.

The directors said that when the council meets on September 22, they would tell human resource development minister Smriti Irani that the University Grants Commission’s role should be limited to deciding names of degrees.

The IIT Council, which is headed by the HRD minister and includes the directors and chairpersons of all the IITs, the UGC chairperson and three MPs, is the apex body to decide on matters related to the tech schools.

IIT Guwahati director Gautam Biswas said all courses offered by the technological institutes had been prepared by experts, keeping in mind the emerging needs of society and international practices of higher education.

“We will argue that all the courses of IITs must be protected.”

The IIT Council, headed by the HRD minister, is the apex body to decide on matters related to the tech schools.

The decision to fight for academic autonomy follows recent instances of the UGC pressuring institutions, including IITs, to cancel four-year undergraduate programmes in the general science stream and prescribing norms challenging the legitimacy of many programmes the tech schools offer.

The UGC’s notification on specification of degrees, published in the Gazette of India in July 2014, has been sent to over 700 universities and institutions that grant degrees, including the IITs.

In the notification, the UGC — which had earlier forced Delhi University to scrap its four-year undergraduate programme in June — asked the institutions to follow its specified nomenclature of degrees and duration of courses and the eligibility criteria for admissions. The IITs offer programmes like the four-year BS (Bachelor of Science), BTech/MTech dual degree of five-year duration, and BS/MS (Bachelor of Science and Master of Science) dual degree, also of five-year duration. The UGC list of specified degrees has 129 types of programmes but does not include certain programmes the IITs offer, such as the four-year BS. The notification also mentions master’s degree as the admission criterion for enrolling in a PhD programme. This invalidates nearly 20 per cent of PhD students in IITs who were given admission because of their outstanding BTech scores. The IIT Council had earlier approved this model to attract the best talents and stop them from joining private firms.

“The UGC notification says the entry qualification for PhD is MTech or master’s. What will happen to the 20 per cent of our PhD students who were admitted on the basis of their BTech scores?” said Dheeraj Sanghi, dean of academic affairs at IIT Kanpur.
Professor P.M. Bhargava, a former director of the Centre for Cellular and Molecular Biology, said the UGC’s prescriptions of homogenous degrees, duration of programmes and entry qualifications went against innovation and pursuit of excellence.

“Nowhere in the world does the regulator or the government prescribe the duration and entry qualification for any programme. Top institutions, whether it is Harvard, Cambridge or Oxford University, decide their own courses.”

Bhargava said students who show the potential for research “must get entry” to PhD after BTech, and added that making a master’s degree the minimum qualification for joining a PhD programme was unprofessional.

“It will affect excellence and innovation,” he said.

UGC chairman Ved Prakash said the regulator had gone by the UGC Act, which says the commission has the exclusive right over specification of degrees. “The matter will be discussed at the IIT Council,” he said. “But we have gone by the law.”

**NaMo’s Pep Talk Spurs IIT Alums**


CHENNAI: With the 4th edition of the Pan IIT Alumni Leadership Series (PALS) launched on Saturday, organisers said that the series was further motivated by Prime Minister Narendra Modi’s exhortations at a recent conference of IIT directors.

According to organisers, Narendra Modi urged the IITs to adopt a more inclusive effort towards other engineering colleges, mentor them, encourage alumni to interact with students to leverage their experience and a mapping of alumni.

With PALS’ mission statement running along the same lines, organisers expressed delight and said that they were motivated to carry forward the program. “PALS builds on the very bedrock of earlier more successful attempts and has been delivering campus lectures by alumni throughout its three-year duration. Our vision has been to connect, engage and give back and we have been doing that quite sucessfully,” said Kalpathi S Suresh, president of the IIT Alumni Club, Chennai.

The current PALS series will be on the same lines as the earlier ones and deliver a one-year programme of campus lectures, industry visits, IIT Madras department visits, faculty improvement initiatives and innovation camps along with newer initiatives.

The series was inaugurated by director of IIT Madras Bhaskar Ramamurthi and was followed by a panel discussion on changing expectations in India addressed by Wheels India CEO and MD Srivats Ram, founder CEO of MEDALL Diagnostics Raju Venkatraman, global head of Engineering and Industrial Services — TCS Regu Ayyaswamy and C P Madhusudan, director of Lucid Software Ltd.
Railway Ministry turns to China model for novel university


Prime Minister Narendra Modi might have widened the scope of Japanese collaboration in various spheres through his recent visit to the country, but India’s first Railway University will be officially modelled after institutions in China.

The Railway Ministry has formally communicated to the Cabinet Secretariat and the PMO that it is studying Chinese models for the proposed university exclusively for railway-related courses—one of the ideas prescribed by Modi himself—and has already held consultations with the National Railway Administration, China, which visited Railway Board recently.

China has been teaching railway-specific courses for the past 100 years and currently has multiple universities in the discipline. So, Railway Ministry officials thought that taking a leaf out of China’s experience would be a way forward. The curriculum, administration and optimum resource-utilisation in the university will follow China’s footsteps in this regard, as per discussions held with Chinese officials.

For the time being, IIT-Kharagpur will introduce engineering courses related specifically to Railways in collaboration with the ministry, a communication seen by The Indian Express said. This will be the first such initiative in the country for Railways. Collaborating with the IIT was an advice from the HRD ministry in response to a request from Railways. “We are planning to visit China to get a first-hand experience about the workings of a railway university. China is far ahead in the world as far as teaching railway-related courses is concerned,” said a railway board official.

The Ministry is going to appoint EdCIL, an HRD-ministry controlled PSU that specializes in providing end-to-end solutions for setting up of the educational institutes. The contract with EdCIL is slated to be signed on September 30, the Cabinet Secretariat has been informed.

Building a university will require preparation of a Detailed Project Report, which EdCIL will help Railways make. A Cabinet note will be moved in this regard.

Subsequently, Railways with consultation with the HRD ministry will write a Bill enabling the creation of the new Railway university, which will be moved in Parliament.

The location of the proposed university is still under consideration. Ministry officials said that the choice of the location would depend on the advice from the HRD ministry and the EdCIL project report. “We would like it to be a city with ample connectivity by rail and air so that movement of faculty and facilities for students is not a constraint,” the official said. The facility is slated to offer undergraduate and post-graduate...
Now, ‘mother’ of God particle discovered

Finding Can Aid Study Of Real God Particle

London: Scientists have for the first time properly observed a theoretical cousin of the Higgs boson, one that inspired the decades-long hunt for the elusive particle.

The Higgs field is credited with giving other particles mass by slowing their movement through the vacuum of space. The particle, first proposed in the 1960s, finally appeared at the Large Hadron Collider at CERN near Geneva, in 2012.

The idea was borrowed from the behaviour of photons in superconductors, metals that, when cooled to very low temperatures, allow electrons to move without resistance.

Near 273 degrees Celsius, vibrations are set up in the superconducting material that slow down pairs of photons travelling through, making light act as though it has mass. This effect is closely linked to the idea of the Higgs — “the mother of it actually”, said Raymond Volkas at the University of Melbourne in Australia.

Those vibrations are the mathematical equivalent of Higgs particles, said Ryo Shimano at the University of Tokyo, who led the team that made the new discovery.

The superconductor version explains the virtual mass of light in a superconductor, while the particle physics Higgs field explains the mass of W and Z bosons in the vacuum. Physicists had expected the Higgs-like effect to appear in all superconductors because it is also responsible for their characteristic property — zero electrical resistance.

However, it had only been seen before by imposing a different kind of vibration on the material, the report said.

Shimano and colleagues violently shook the superconductor with a very brief pulse of light to observe it in a superconductor in its normal state. It is similar to how particle physicists create the real Higgs boson with energetic particle collisions, Shimano said.
Who’s Who of Indian IT to cherry-pick the trailblazers

IT is at the centre of all transformation and it will help us meet our digital India aspirations. This is a prestigious award and I would encourage companies and individuals to participate in the programme. I am honoured to be part of the Jury.

SOM MITTAL
Former President, Nasscom

MITTAL was at the helm of affairs in India’s premier IT trade body, Nasscom, between 2001 and 2013, and is the most challenging phases seen by the industry as it battled global economic recession and regulatory concerns in the US. Under his leadership, the industry crossed the $100 billion milestone, significantly expanding its base offerings.

An ITP-Karaz and IBM Ahmedabad alumni, Mittal has held leadership roles at companies like Wipro, Digital India, Compaq, and HP. He also has extensive experience in the engineering, manufacturing, and automotive industries, having held executive roles with Lear & Tushar, Escorts and Denso.

MITTAL also visited India’s best universities and other leading educational institutions to identify potential talent. He was a member of a body consisting of the National IT Task Force, which led to the development of the National IT Policy.

RAJAN ANANDAN
Google India

ANANDAN has been the managing director of Google India since 2005. He has been a leader in the region for more than 20 years, having held senior roles at various companies including Microsoft, Oracle, and Sun Microsystems.

He is a proponent of open-source software and has been instrumental in bringing Google’s search technology to India. ANANDAN has also been a vocal advocate for the need for greater investment in India’s IT sector.

CHANDRASHEKHAR RAO
President, Nasscom

RAO is the president of Nasscom, the leading trade body for the Indian IT sector. He has been instrumental in shaping the growth of the IT sector in India and has been a strong advocate for the sector at the national and international level.

RAO has been a key player in the development of the Indian IT sector, and has been involved in several initiatives to promote the sector, including the IT Industry Council and the India IT Council.

NASSCOM

The National Association of Software and Services Companies (NASSCOM) is a trade body representing the Indian IT sector. NASSCOM is a key player in the development of the IT sector in India and has been instrumental in shaping the growth of the sector.

NASSCOM is a member of the World Economic Forum's Global IT50, and is a key player in the development of the Indian IT sector.

The Express IT Awards come at a very appropriate time. The sector is at an inflection point. A rising number of entrepreneurs have begun creating global IT products out of India. I hope these Awards are seen as a benchmark for excellence in years to come.

TV Mohandas Pai
Chairman, Manipal Global Education

PAI is the chairman of Manipal Global Education, a leading educational institution in India. He is also a member of the board of several private and public sector corporations, and also a member of the board of studies of several universities.

The Express IT Awards have the widest scope and, coming from a newspaper which has set itself a unique position away from specific associations, it has a credibility of its own. This is one thing that endears me to this award.

PROF SADAGOPAN
Director, IIIT, Bangalore

SADAGOPAN is the director of the Indian Institute of Information Technology (IIIT), Bangalore, one of the first institutions in the country with a special focus on IT.

He has taught for more than three decades at several elite institutes, including IIT Kanpur, IIM Bangalore, and IISER Mohali, besides a stint at Rutgers, State University of New Jersey. Prof Sadagopan also engages with many new-generation institutions set up in India in the past 15 years, notably the IITs in Tiruchirappalli, Bhuvaneshwar and Delhi, IIT-Delhi, and the Institute of Space Science and Technology in Tiruvanumalai.

A fellow of the IEEE, he is also the former director of the Indian Institute of Science (IISc), Bangalore, and a member of the board of several public and private sector corporations.
Panel finds most deemed varsities don’t fulfil criteria

Akshaya Mukul
@timesgroup.com

New Delhi: A high-powered committee set up at the behest of the Supreme Court to look into 41 ‘C’ category deemed universities has found that majority of them still do not fulfil the criteria needed to become deemed university.

“It is likely that around 10 or so have been found fit to be upgraded to become deemed university. Rest of them can exist as educational institutions affiliated to universities. Basically, classification of ‘C’ category institutions has been done in which a few pass the test of becoming deemed, a few lag behind on certain criteria and others have been found totally unfit,” a source said.

In 2009, the Tandon committee, while reviewing deemed universities, had put 44 of them under the ‘C’ category and declared them unfit to be a university. These institutions went to the Supreme Court and the matter is being heard. In January, a new committee was set up by UGC to assess ‘C’ grade universities. UGC will discuss the new committee report on September 22 and 23.

Sources said the new committee headed by H Devaraj, vice-chairperson of UGC, after hearing 41 deemed universities extensively in July, raised several questions about the manner in which deemed university status was granted. Since the committee was also asked to examine other reports on deemed universities, namely one set up by UGC in 2009, Tandon Committee and Committee of Officers, it found many flaws.

One, how come many institutions got notified as deemed university on certain conditions. “There is no provision for conditional notification in the UGC Act. If some of the deemed universities had conditional status, did UGC or HRD ministry check if conditions were fulfilled after a certain period. Also, how come many of them with conditional status made it to the ‘A’ category (high performing) of Tandon Committee,” asked a member of the committee.

He also asked how deemed university status was given to one college which brought its sister institutions under its ambit without getting them separately assessed. The new committee also pointed out serious discrepancy in upgrading eight ‘B’ category institutions to ‘A’ category.

The report was written in the last days of August as Amita Sharma, additional secretary in HRD ministry and a member of the committee, was retiring. Sharma is being brought back as advisor in the HRD ministry.
Grant from UGC has come as a blessing

Jawaharlal Nehru University was recently awarded Rs. 60 crore and adjudged the ‘university with potential for excellence’ by the UGC. Its V-C Prof. S.K. Sopory spoke to Vijetha S.N. about how the fund will be used and highlighted the reasons behind JNU’s low position in global rankings.

NEW DELHI: “The Rs 60 crore will be divided fifty-fifty between faculty and infrastructure for students,” said Prof. Sopory, Jawaharlal Nehru University’s Vice-Chancellor. He pointed out that since JNU is one of the few research-oriented universities in the country, maintaining standards of current research as well as continuing with new projects was important for it to move forward.

“We have around 400 to 500 research projects going on, mostly with funding from outside. In fact, most of our funding comes from outside sources. However, now with the money coming in from the UGC, we have kept about Rs.30 crore aside for faculty research, and we have received about 200 proposals,” he said.

The university, he added, sought to encourage projects trans-disciplinary in nature and which had the potential to get converted into proper academic courses.

The JNU, like all Indian universities, fared badly in the global university rankings and Prof. Sopory said it was mostly because the institution did not know how to relay the correct information to the agencies conducting the rankings.

“We have formed a special cell to relay the correct sort of information and we are also going to consciously work towards better rankings from encouraging our faculty to publish more internationaly,” said Prof. Sopory.

“I wanted the faculty to properly understand the world rankings. They are not a measure of academic standards. We have decided to set up an incentive system to encourage faculty to publish research papers in international journals. We are also going to send faculty to conferences abroad, and internationally, to globalise the university. We have been signing MoUs with foreign universities as well as inviting faculty from abroad. Our faculty, too, get invited abroad,” he said.

We have around 400 to 500 research projects going on, mostly with funding from outside. However, now with the money coming in from the UGC, we have kept about Rs.30 crore aside for faculty research, and we have received about 200 proposals.

Prof. Sopory said some of the JNU faculty members had published books that were considered the best in their subject, yet the rankings didn’t recognise them. “They wanted international journal publications as parameters for judging the faculty."

With regard to infrastructure, the university also desperately needs to promote its key disciplines and continue to invest in research. Plans for a hostel with reservations for people from the Northeast are also on the anvil.

The V-C said funding had not gone up or down with the 12th Plan. The additional grant from the UGC has come as a blessing, he insisted.

DU replete with ill-qualified teachers

Vijetha S.N.

NEW DELHI: The spurt of economic opportunities in the past few decades, the Sixth Pay Commission and the OBC expansion scheme in 2007 — these were all positive factors for those intent on making a career out of teaching. However, by Teachers’ Day 2014, the ground realities expose an entirely different scenario.

“Teachers with Ph.Ds from the country’s best universities have trouble getting part-time jobs, and this is despite the teacher-student ratio being the lowest here with around 80 or 90 students in a class. However, we always end up hiring teachers who are not qualified enough or do not have the requisite skills to take class. They are sent to us from the university and we cannot turn them away for better candidates, some of whom have been teaching on an ad-hoc or guest teacher basis for several years,” said a principal from a college that commands one of the highest cut-offs in Delhi University.

The difference between an ad-hoc and a guest teacher is that an ad-hoc teacher is associated with only one college and the guest teacher can teach in different colleges, provided that he or she is not paid more than Rs.25,000 per month in any one college.

“There are around 4,000 teaching posts lying vacant in the university. The ad-hoc teachers get paid very little and are usually over-worked. Also, these past years, they were the ones who were the most affected when the university came down strongly against teachers who were protesting against them,” said Delhi University Teachers’ Association president Nandita Narain.

“Our teaching standards have come down significantly. The good teachers are retiring and we are replacing them with ill-qualified people whom we are forced to choose over good teachers. The only reason we are able to maintain our reputation is because we choose the best students who will do well in an examination anyway if the teaching is good or bad. And, of course, because of our alumni network we are able to place our students decently enough. But, I do not know how long it is going to last,” the principal added, not wishing to be named just yet, fearing a worsening of the situation.
Low cost approach to learning science

DIFFERENT METHOD
RVM Chokkalingam stresses the importance of low cost teaching aids in science education

Experimental Science Learning (ESL) is a system of philosophy that emphasises learning from direct first-person experience, is the most effective way of learning through exploration, activity, and experimentation. It is all about personal close encounters with the content, process, and emotion of science. It is a holistic perspective that includes the self-construction of knowledge. It is one of the critical pathways toward student science literacy. So, ESL is inductive, learner-centered and activity-oriented. It is an activity-based learning pedagogy.

The emotions, attitudes, and beliefs derived from ESL combine to form a learner's curiosity. In conventional learning, the needs of the organisation are the primary drivers of the learning content, design, delivery and assessment. ESL is the way to break out of the received conditioned teaching practices, which constrain a student's development in schools.

The present teaching method is orientated vegetively and exclusively to meet external needs, not people's individual needs and potential. ESL through hands-on discovery activities can be done in a variety of ways using everyday odds and ends as raw material. The new mindset of cost-effective teaching aids facilitates innovative teaching paradigms that replace the old-fashioned lecture format with hands-on learning. They make experiments more accessible to young children. Also, we do not need a lot of fancy equipment.

Science experiments are fun and can teach a lot about the world around us. With a little bit of time, and some curiosity as well as imagination, simple physics concepts can be demonstrated by using a few common household items. Simple ideas using readily available materials promote an active process of learning science. The simplicity of the effects attracts the kid's attention.

Laboratory experience

Majority of rural schools depend on in-expensive teaching aids developed with relevant materials related to the learner's environment. They will also become one of the possibilities to increase the laboratory experience with less cost and sweat.

There is a need to grow up use of low-cost teaching aids as settings for pre-service and in-service development for teachers. The pre-service and in-service training courses for science teachers are not always as practical as it might be. From 'cook-book experiments', we have to move towards science enquiry in action. Science education improves by immersing learners in the process of Experimental Science Learning. Experience and observation are key to the scientific inquiry process.

We have already empirical evidence that students who learn in an interactive environment have a better understanding of science. It is determined such students are better able to solve problems and have a higher level of conceptualisation in learning after participating in hands-on learning. Also this teaching strategy links activity, field, laboratory, library and classroom experiences with real-life situations and applications.

The purpose of any experimental learning activity is to create an opportunity for valuable and memorable personal learning. They implicitly enable learning methods to fit a person's preferred learning styles and natural choices. The learners are encouraged and helped to learn and develop in their own ways, using methods which they find most comfortable and therefore enjoyable. The learning by doing can be a solo activity or a collaborative effort.

The ability to actually make things work is essential for true learning of science. Low-cost teaching aids not only help students understand science, but also give them a sense of achievement as they perform experiments for themselves and derive their own understanding based on observation. They prompt students to interact with them, ask questions and reinforce their own learning. They provide a positive emotional platform for future learning.

The basic activities involved in inexpensive teaching aids facilitate children to test ideas, perform experiments, and make interesting discoveries. Both teachers and parents will find them in rewarding ways to provide quality learning experience for children.

Models of rotational kinematics, centre of mass walker, clock face image, user lever, sound mirror, cylinder race, roll-up marble, energy conversion, swing on rollers, magnus effect, home movie, minimum link, optical illusion, foil turbine, impact一把, sand pendulum, kaleidoscope, come back drum, Mobius strip, boomerang, loop-the-loop, double bubble, energy pyramid etc are things that can be made to pique a child's interest.

For younger crowd

For junior schoolchildren, engagement activities in physics can be easily made out of cardboard. Simple physics experiments to kids: sound gun, bunsen tube, anemometer, rainbow spinner, swimming fish, hourglass, automata, periscope, photograh, sundial, helicopters, pinhole camera etc are easy to make, comfortable to handle and therefore retain excitement. Kids create their own personalized learning paths toward science understanding.

The functional design of a teaching aid is most important for learning. A constant and intense experimentation using all methods and techniques at one's disposal is very much essential. They are to be created in such a way, where children feel comfortable to explore and learn science. A self-made teaching aid out of known materials, when experimented, will help students in quicker and easier understanding of science through first-hand experience. It can be used by classes and as props for learning. They need to relate the experiments to everyday things, and on understanding how things work.

Low-cost teaching aids facilitate active experimentation, concrete experience, reflective observation and abstract conceptualisation. They are flexible with open possibilities and offer incremental growth and discovery. They develop knowledge, skills and emotional expertise. These learning activities are a means to an end, not an end in itself. However, I believe in the learner; they can and will make Experimental Science Learning work for them.
A master stroke in using technology

Dinesh Malkani

OUR digitising India vision is one of the most exciting initiatives the country has embraced to leapfrog us into the 21st century. Given the huge divide between rural and urban India and the digital haves and have-nots, I believe that the Digital India programme is a masterstroke in using technology as the great leveller for the citizens of India. The programme, recently announced by the Prime Minister, charts a roadmap to a digital India where a digitally literate population can leverage technology for endless possibilities.

What was once a visionary notion is now the new normal: technology is really as essential as the three utilities—water, gas, and electricity. Our government leaders have made it clear that broadband highways are as important as national highways. Today government leaders understand that while the end goal is to offer better services, foster innovation and generate more jobs, the critical enabler is going to be technology and the foundation to a digital nation will be laying a pan India network.

The Digital India programme envisages providing digital infrastructure as a utility to every individual, delivering governance and services on demand and enabling the digital empowerment of citizens. The project has identified nine pillars for growth. One key focus for the government is the development of broadband highways that will cover 250,000 gram panchayats by December 2018. There will be a greater focus on increasing broadband penetration in urban areas through the deployment of mandated communication infrastructure in new buildings. Broadband penetration will allow technology-enabled services to be rolled out to remote parts of the country. The government is also focused on providing universal access to mobile connectivity. By 2018, more than 40,000 villages are likely to be under the banner of mobile technology.

A key part of the Digital India programme is the National Rural Internet mission, through which more than 2.5 lakh villages will have Internet access through community service centres which will become viable, multi-functional end points for service delivery by 2017. The programme also wants the government’s stated target of net-zero imports by giving electronics manufacturing due importance. We believe this focus will boost India’s manufacturing capabilities and transform the nation into a manufacturing hub. As part of the programme, the government will focus on cultivating an IT-ready workforce by training people in smaller towns and villages with IT for jobs over the next five years. To kick off the Digital India programme, the government has announced a few early harvest programmes such as installing Wi-Fi in all universities by 2015, securing email within the government, and enabling public Wi-Fi access in cities with a population of more than one million people.

It is not just connecting a mobile phone, car, a refrigerator or health device—it’s the combination of all of this. In 1984, there were 1,000 devices connected to the Internet worldwide. In 2014, 10 billion devices will have downloaded 77 billion mobile apps. 50 billion devices will be connected to the Internet in the next decade, and we will be able to get massive amounts of data from sensors. Cisco expects networked devices in India to swell to 1.8 billion by 2018.

India is on the path to embracing digital technologies and reaping the ensuing benefits especially in the areas of broadband expansion, electronics manufacturing and e-governance. Implementation of the Digital India programme will help the country in overcoming our challenges, seizing our opportunities and providing citizens with access to better infrastructure and quality of life.

Implementation of the Digital India plan will help India in overcoming our challenges, seizing opportunities and providing citizens with access to better infrastructure and quality of life.

The writer is president & country manager, Cisco India & SAARC.
The current state of the skilling system in India is not working very well. It has 17 plus ministries with their own criteria, own agendas, own priorities, own partners and assessment systems. There is an urgent need to standardize the usage of money which comes from a single source—the Centre.

What the ministry for entrepreneurship & skill development can do is set up guidelines for effective usage of money. The biggest challenge is that the beneficiary has very little say in what he wants to get trained on. This is what Prime Minister Narendra Modi has been trying to do in Gujarat—the skill coupon model. The ministry for entrepreneurship & skill development should allow one skill coupon per family which they could exchange for training in any of the approved training agencies for all skills training. The idea, basically, is to empower the individual to choose the course and the training institute.

What can go wrong due to centralization is that the local knowledge that the state has may not be put to the best use. However, to check this, what can be done is that the training be routed through the state government. In all ministry of rural development programmes, the state government pays 25% of the training fee and the other 75% comes from the Centre. This ensures the involvement of the state government as well. Narendra Modi has, time and again, said that all the government schemes should be routed through the states.

Also, the ministry for entrepreneurship & skill development should have good advisors, not only the government functionaries but also from the private sector employers, because they are the ultimate beneficiaries. The ratio, for instance, can be 30% government officials and 70% private. The micro, small and medium enterprises (MSMEs) are major employers. They also should be involved in determining what courses to run, the curriculum, the duration, etc. The focus should be more on the employer needs and that is what will ultimately define the success of the ministry for entrepreneurship & skill development’s initiatives. A new organization—the association of skill training providers—is being formed and the ministry for entrepreneurship & skill development must engage with this body constructively at the policy-making level.

We have not been able to get the right talent into the skill movement. Experts feel that it may be because we have not glorified ‘skilling’, but the real reason is that the work/labour that a mason or a plumber does doesn’t really compare with the money that he earns. Most of the new entrants in skills training still receive unskilled or at best semi-skilled salaries, and thus we are commoditising the jobs. What we need to do is create some kind of job evaluation framework and link it to compensation.

In the corporate sector, for example, in the managerial cadre, the roles range from management trainee to managing director. Between these positions, there are several levels and types of jobs. In a global company such as Pepsi, there must be over 50 job levels based on the job evaluation method, which is linked to compensation. If a person moves from country A to country B, the job description will remain the same but the job level may change—the geography may be larger; team size may be bigger so on and so forth. Therefore, compensation is based on the job level.

Similarly, in the skill system, compensation should be paid for the job. We do not have such a job evaluation framework for skilling in India, especially in industries such as construction. For example, a plumber’s job is far more complex as compared to a mason’s, but there is no major difference in their compensations.

Thus, the ministry for entrepreneurship & skill development must create some kind of job evaluation matrix for the industry and link it to compensation; in fact, they are in the right position to do this as the nodal agency.

Here it must be added that the National Skill Development Corporation (NSDC) has created Sector Skill Councils (SSCs), which have created assessment bodies and, on the other side, the Directorate General of Employment and Training (DGET) has created its own assessment bodies and frameworks.

Assessments are also done by employers. Thus, there is a need to align these assessments under some logic. What NSDC and SSCs are doing with the National Occupational Standards (NOS) and Qualification Pack (QP) is appropriate. Based on the NOS and QP we need to create assessment frameworks. We must have two major players—the DGET and the SSC. Further, the assessments must not be monopolised. The ministry for entrepreneurship & skill development’s primary role should be to bring the DGET and SSCs assessment frameworks under one umbrella.

I believe that the ministry for entrepreneurship & skill development is great upward movement for the skill ecosystem, provided the ministry does not think and function like a bureaucracy but functions like a PPP organisation such as the NSDC.

The author is chairman, TMI Group, the end-to-end Indian human resource (HR) services provider
Desktop virtualisation can address the key challenges faced by the education sector

Desktop virtualisation has emerged as one of the most viable alternatives to traditional computing because it addresses the key challenges faced by the education sector, believes Monali Handa, Director, Marketing, India & APAC, NComputing. In an interaction with FE’s Vikram Chaudhary, she shares how NComputing, a desktop virtualisation company, is helping transform the lives of millions of students and knowledge workers in India. Excerpts:

What have been NComputing’s contributions towards the education sector?
Education has been one of the key focus sectors for NComputing. With its array of affordable shared computing (also called desktop virtualisation) solutions, the company is working closely with the central government, majority of the state governments, and with many non-government agencies to make computing solutions available at the most economical price point so that the benefits of computing reach far and wide, and every student is able to learn, discover, experiment and collaborate with his/her peers.

What role has NComputing played in providing affordable computer education for rural students?
Educational institutions in the rural areas of the country face challenges like limited funds for setting up and managing IT labs, limited staff, power shortage, and dependence on power backup systems. Our desktop virtualisation solutions enable institutions to set up labs and classrooms that are green, cost-efficient, easy to maintain, obsolescence-proof, and lead to 90% less eWaste compared to the traditional PC lab—factors that have made NComputing the most preferred choice for educational institutions.

Which all Indian states have installed your devices?
The key implementations made by NComputing in India include 75,000 seats in schools across Gujarat; 80,000 seats in 6,000-plus government schools in Andhra Pradesh; 60,000 seats in Punjab; 58,500 seats in 2,622 government schools of Haryana; 18,000 seats across 1,800 learning centres of Maharashtra Knowledge Corp Ltd; over 15,000 seats in Bihar; and deployment of many lakh devices in over 45,000 educational institutions.

What are the biggest challenges that lie in front of NComputing in schools?
While over the last 6 years we have deployed over 8.5 lakh seats in India, which is helping transform the lives of millions of students and knowledge workers, but the challenge still remains to reach every corner of the country and create awareness about the benefits that the adoption of shared computing technology can deliver to both educators and students.

The government is aspiring to provide computer education at negligible cost. How is desktop virtualisation going to play a role in this initiative?
India has realised the importance of computer education and training more than ever, but we still have miles to go. The government has been playing its part in enabling the spread of ICT for providing computer education to each and every student in the country. In this scenario, desktop virtualisation has emerged as one of the most viable alternatives to traditional computing, because it addresses the key challenges faced by the education sector and enables affordable access to computing at a fraction of the cost of the all-PC set-up.
Students aim to borrow less from banks for MBA

FUNDING CONCERN

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GLOBALLY

- Percentage of students that don't have any reservations about pursuing a degree rose from 13 in 2009 to 18 in 2013.
- For 48% students, funding is big concern in pursuing an MBA.
- 45% will think twice before pursuing an MBA because of financial debt worries.

New Delhi: A big take away from the great recession of 2009 among the students worldwide is to borrow less and count on greater contributions from parents in their education. The Indian aspirants of international business degree who traditionally relied on loans to fund more than a third of their cost are now banking on their parents' contribution.

Number of students relying on loans and grants has come down, while reliance on parents has gone up from 13% in 2009 to 19% in 2013. Globally 45% are concerned of pursuing a full-time MBA due to the financial debt that comes along with it.

Through the widespread apprehension of whether to pursue an international management degree in 2009 to 2011 has come down, concerns of cost and potential debt remains on top of the list. As against their 2009 counterparts, in five years leading up to 2013 batch of MBAs, reliance on loans have come down from 36% in 2009 to 35% in 2013, expectation from grants and scholarships to cover the cost of study too have come down from 29% to 25% in this same period. And instead almost 38% of Indian citizens considering international study for a full-time MBA are now either relying on funding from their parents (19%), personal funds (16%), employer (6%), and spouse (2%).

This was revealed by “Paying for Business School” data released by the Graduate Management Admission Council, which conducts the admissions test GMAT for B-schools worldwide in September 2014. The study was done among the batches from 2009 to 2015. Around 60,000 prospective registered students were surveyed across five years.

Globally less number of aspirants of management education in 2013 had reservations about pursuing business school compared with peers in 2009. Uncertainty over the economy and job prospects among the B-school aspirants have come down from 28% in 2008 to 21% in 2013, and concerns of requirement of large financial debts too has come down from 51% to 45% in this period. In the same period loans as a mode for financing instrument for education too dipped from 36% to 22%, the expectation of parents covering the gap has risen from 14% to 20% in these five years.

Trends in the financing mix on “How do I pay for Business School?” indicate that while loans as a means decreased by 4%, the biggest contribution to financing ones management degree is by means of personal savings which is 24% in 2013, by far the highest mode of finance.
100m-year-old volcano found under the Pacific

Washington: A massive 100 million-year-old ancient extinct volcano has been discovered lurking four kilometres underwater in one of the least explored areas of the Pacific Ocean.

Scientists, at the University of New Hampshire (UNH), on a seafloor mapping mission found a new seamount near the Johnson Atoll in the Pacific.

The summit of the seamount rises 1,100 meters from the 5,100-metre-deep ocean floor. The seamount was discovered in August when James Gardner, research professor in the UNH-NOAA Centre for Coastal and Ocean Mapping/Joint Hydrographic Centre, was leading a mapping mission aimed at helping delineate the outer limits of the US continental shelf.

Gardner and his team were using the multi-beam echo-sounder technology to create detailed images of the seafloor when, late at night, the seamount appeared "out of the blue". The team was able to map the conical seamount in its entirety.

The yet-unnamed seamount, located about 300 kilometres southeast of the uninhabited Jarvis Island, lies in one of the least explored areas of the central Pacific Ocean. Because of that, Gardner was not particularly surprised by the discovery. "These seamounts are very common, but we don't know about them because most of the places that we go out and map have never been mapped before," he said.

Since only low-resolution satellite data exists for most of the Earth's seafloor, many seamounts of this size are not resolved in the satellite data but advanced multi-beam echo-sounder missions like this one can resolve them.

"Satellites just can't see these features and we can," Gardner added.

The seamount's impact remains unknown—for now. It's too deep (its summit lies nearly 4,000 meters beneath the surface of the ocean) to be a navigation hazard or to provide rich fisheries. "It's probably 100 million years old and it might have something in it we may be interested in 100 years from now," said Gardner.

A seamount is typically formed from extinct volcanoes that rise abruptly from the seafloor. PTI
Odisha to tap mineral resources

Realising that its rich mineral reserves remain unutilised, Odisha government has favoured setting up an Innovation Centre for Development and Value Addition of Mineral Resources in the state, reports PTI from Bhubaneswar.

Though the state is rich in Iron ore, Chromium, Manganese, Bauxite, Coal and beach sands, its potential remained untapped and there is a great scope for creating employment opportunities, improving societal infrastructure besides contribution to national and state economy.

The scope lies in planned development and utilisation of innovative technologies for making value added products from these resources, observed top executives in a brain storming session here on Saturday.

Around 30 top executives of mineral based industries in the state, acting director of IIT Bhubaneswar, Director, Institute of Mineral & Materials Technology (CSIR-IMMT) and others participated in the meeting. The meeting in its recommendations said the mineral based industries need a clear and simple policy framework for exploration, development and environmental sustainability keeping the National Mineral Policy in mind.

"Incentives for value addition and waste utilisation along with promoting exploration through private industries will expand state's industrial base," Odisha Industries minister Debi Prasad Mishra said quoting one of the recommendations.

As technology plays a key role in making economically viable value addition processes and products, technology innovation-cum-incubation centres may be developed following a consortia approach with IMMT and IDCOL as anchor organisations for facilitation, the meeting resolved.