Newspaper Clips
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Unintended consequences

Dr Rajan's message important, but could rebound on RBI

In the current public discourse on religious tolerance, Reserve Bank of India Governor Raghuram Rajan's convocation address to the students of the Indian Institute of Technology (IIT) Delhi on Saturday, delivered an unmistakable if nuanced critique of the ideological underpinnings of this government and their outward manifestation. Drawing on the work of Nobel Laureates Robert Solow and Richard Feynman and using the example of India's global IT achievements to make his point, Dr Rajan linked the importance of ideas to a nation's progress and highlighted the need to "foster competition in the marketplace for ideas" as a prerequisite for delivering economic growth. Achieving this, he argued, required "the right to question and challenge, the right to behave differently so long as it does not hurt others seriously". When someone of Dr Rajan's stature and authority adds his voice to the growing avalanche of criticism from a broad range of civil society, the importance of the message cannot be underestimated. It is especially impactful because he addressed precisely the age cohort that the current regime targets with its message of religious nationalism with all its deceptive certainties.

In leveraging the functional independence of his job as central bank governor to comment on issues that are, strictly, outside his official remit, Dr Rajan has displayed candour and courage rare in India's public servants. However, there may be unintended repercussions to the institution he heads. To be sure, this is not the first time he has publicly expressed dissatisfaction with the government's non-monetary policy actions and it is unlikely to be the last. In this, he is perhaps following the precedents set by central bankers like Ben Bernanke and Janet Yellen of the US Federal Reserve and Mark Carney of the Bank of England. But they work within developed democracies where standards of debate are reasonably mature. Dr Rajan raised this point in his speech. "Tolerance means not being so insecure about one's ideas that one cannot subject them to challenge — it implies a degree of detachment that is absolutely necessary for mature debate." Unfortunately, this is manifestly not the case in India, so it is unlikely that his remarks will be received in the spirit in which they were made.

Indeed, the manner in which senior ruling party functionaries are fiercely dismissing all criticism as politically motivated is a case in point — though President Pranab Mukherjee's repeated reference to intolerance in quick succession admittedly makes that point hard to refute. Dr Rajan's criticism should also be set against the growing pressure – as much by the last regime as this one – to curtail the RBI governor's room for independent action and the proclivity to establish unequivocal control over institutions. It could encourage the government to take that short step towards appointing governors who may lack the expertise and understanding that consistently marked past appointees — and who is thus amenable to doing the government's bidding. It is a dangerous prospect.

Economic Times ND 03/11/2015 P-12

Internships Gather Steam at IITs

With startups eating into talent pool of engineers, corporates picking up interns before the final placements

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New Delhi: Facing fierce competition from startups, corporates are chasing fresh talent at the Indian Institutes of Technology through the internship route like never before. According to placement cells at leading IITs – Delhi, Bombay, Kharagpur, Kanpur and Madras – companies are slowly shifting to the pre-placement offer route rather than limiting themselves to final placements.

"Many startups may not come on Day 1 slot at IITs but they are surely eating into the talent pool available to corporates. As a result, corporates are increasing the number of internship offers," said IIT Kharagpur's vice president, Technology Students' Gymkhana, Atal Ashutosh Agarwal.

The internship offers at the oldest IIT in the country has risen almost 60% over last year in the corresponding period ending October. The total number of companies coming with internship offers has also doubled than last year (till October), said Agarwal.

Around 15 big corporates are coming to IIT Bombay to pick interns for the first time this year, said a placement official at the institute. Most of them had earlier come only during the final placements.

Startups are competing with corporates for engineering talent: during last placement season at least one in 10 students of each batch at leading IITs was estimated to have joined the new age companies. Hence, a large number of companies that don't want to miss out on the cream of talent at the premier institutes are either coming for the first time to the campus or are increasing the number of interns, said campus recruitment officials at Mumbai.

Some of these include American Express, Capital One, Citi, Credit Suisse, Daikin (Japan), Deutsche Bank, Eaton, General Electric, Goldman Sachs, Google, Hindustan Unilever, ITC, JP Morgan, Microsoft, Morgan Stanley, Nomura, Qualcomm, Robert Bosch, Samsung, Sony (Japan), Shell.

IIT Delhi witnessed doubling of offers this year over last, with a total of 120 internship offers coming in so far, most of which were made by corporates.

For IIT Kanpur students, the total number of internship offers is touching 200 against 160 last year for the same period.

"Lots of companies are shifting towards the PPO model, i.e., they hire students from pre-final year as interns and give them pre-placement offers. The internship hiring is also becoming more and more competitive among the companies and is further pushed by the demand for talent from the start-ups," said Sidhant Khatri, overall placement coordinator at IIT Kanpur. He added that the percentage conversion to PPOs from summer interns has also increased significantly over the years.

Sensing the preference of companies to recruit through the PPO route, IIT Madras has established an internship office this year to streamline and expand the internship recruitment process. "We hope this will result in an increase in the number of PPOs in the future as companies are looking at internship as a better way to recruit for their organizations," said P Chandramouli, professor & advisor for Internship at IIT Madras. "The internship process this year started in August and we have so far placed about 140 students in 37 companies," said Chandramouli.

At IIT Guwahati, over 90 students have already got internship offers from various firms – the highest ever offers at the institute for the corresponding period. "This year, we are seeing highest number of interns taken by companies as well as an increase in the number of companies coming to IIT for interns," said Kaustubha Mohanty, head of Centre for Career Development at IIT Guwahati.

Domestic stipends are up 10-20% at most of these IITs this year compared to last year. For this year, it is about Rs 60,000-90,000 per month.

"Top talent has to be rewarded well. There has been a significant rise in the stipend being paid to interns as well. Students who will be interning at Ola will get a valuable opportunity to earn and learn the way they used to in the Valley a few years back," said Amit Mathur, Senior Director – HR & Head of Talent Acquisition, Ola. This year, Ola Cabs intends to increase its hiring both on the summer internship front as well as at the time of final placements, shared Mathur.

At IIT Bombay, the number of companies coming for internship is comparable to the total number of firms visiting campus for full-time recruitment, according to its placement manager.

"We have been increasing the number of interns over the years. Our campus (WalmartLabs) hiring focuses on technology and analytics talent. We will continue to grow in Bengaluru in the foreseeable future. We are building a team here which has a clear focus to innovate and build at scale," said Jayakumar Kulakada, Vice President and Managing Director, Walmart Global Technology Services India Pvt Ltd.

The rush for interns by corporates is just a reflection of the likely scramble for engineering talent in the final placement days. With start-ups looking for more engineers, the competition in the final placement is likely to get stiffer.

The New Flavour

STARTUPS ARE PUSHING THE DEMAND

For IIT Bombay, hiring by startups is likely to go up to **20%** of the batch this year from only 4% in 2013

IIT Delhi witnessed a **100%** in internship offers this year compared to last

At IIT Kharagpur, the number of companies coming with internship offers has doubled compared to last year

IIT Madras has set up an internship cell this year to focus on PPOs

Hindustan Times ND 03/11/2015 P-8

IITs asked to stop using disability photos in applications

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NEW DELHI: The court of the chief commissioner of persons with disability (CCPD) has asked IITs to stop making physically-challenged applicants of Indian Institute of Technology (IIT) JEE-Advanced fill forms and attach a picture of their disability as it amounts to discrimination. The CCPD wrote to IIT-Bombay on October 28.

Around 1.5 lakh students, who qualify the JEE Mains, are eligible to sit for the JEE Advance. Of the total seats, 3% is reserved for students with disability.

"IITs should stop using the form and adhere to the format of disability certificate as provided in the People with Disability Amendment Rules 2009," reads the letter from the commissioner.

The CCPD has also said that the candidature of the candidates should not be cancelled on the basis of a different format of the disability certificate.

The CCPD also asked the IITs to provide the details of action taken within 30 days from the receipt of the letter. The matter was highlighted after Professor Satendra Singh, co-ordinator of the enabling unit of the University College of Medical Sciences (University of Delhi), filed a complaint with the court of commissioner.

"In July this year, I received an email from a student about IIT using a different disability performa. Earlier too, I had raised a similar issue with the Union Public Service Commission (UPSC) form. Since it is a violation of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Amendment Rules, 2009, which clearly states that a photograph of the face is required in the disability certificate, I wrote to the commissioner," said Singh.

Earlier too, on Singh's complaint, the court of CCPD had directed the UPSC to withdraw similar performa asking candidates to attach photo 'showing' disability. So in November 2014, the UPSC complied with the commissioner's letter and discontinued the discriminatory performa.

Students who have gone through this process think it was not required.

"When a disability certificate from a doctor was being submitted, why was there a need to show one's disability? Such discriminatory rules need to be abandoned all together and authorities need to be more sensitive towards people with disability," said a first-year computer science student at IIT-Khargapur.

Mint ND 03/11/2015 P-8

RESEARCH PAPER

Indian scientists seek to prove genetic basis of Ayurvedic Prakriti

By Nikita Mehta
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NEW DELHI

As part of Ayurveda, Indian medical practitioners have for centuries categorized individuals under three major types under the umbrella concept of Prakriti—Vata, Pitta and Kapha.

Now, a team of Indian scientists, using genome analysis, have published a paper in *Nature* journal showing this phenotypic classification by traditional Indian medicine indeed has a genetic basis and ancient medicine in a way is personalised medicine. For their study, researchers conducted a genomewide SNP, or single nucleotide polymorphism, analysis on 262 men.

"We carried out a thorough assessment of normal individuals and put one million genetic markers to analyse and segregate on the basis of Prakriti," said Kumarasamy Thangaraj of the Centre for Cellular and Molecular Biology, Hyderabad, which works under the state-run Council of Scientific and Industrial Research (CSIR).

The scientists found 52 SNPs, or genetic variations, which could be used as distinguishing factors for the three Prakritis. Using principal component analysis of these SNPs, the individuals were categorized into the three categories. For comparative analysis, researchers used data from 297 Indian samples, including 150 Dravidians, 80 Indo-Europeans, 35 Austro-Asiatics, 27 Tibeto-Burmans and five Great Andamanese. In addition, 15 trios of Dravidians, and 15 trios of Indo-Europeans were used for imputation.

The three constitutional types (Vata, Pitta and Kapha) are based on physical, psychological, physiological and behavioural traits. In Ayurveda, a person's treatment is based on her Prakriti.

"Interestingly, although we had individuals from different ancestries and communities, they all got classified into these three classifications. This was a sign there is real science behind this Ayurvedic classification," said Thangaraj, who is one the co-authors of the paper.

Previous efforts to link Prakriti classification with genetic information and variations have not made much way. An important finding in this paper was that a gene called PGM1 correlates with the phenotype of Pitta, as is described in the ancient Ayurvedic text of *Charak Samhita*. With this, the researchers concluded the phenotypic classification of India's traditional medicine has a genetic basis.

"Scientifically speaking, they are looking at principal components of variation and three of the most common variations could be Vata, Pitta and Kapha. Now, these are useful as they describe normal people, giving us an efficient way of classifying people to find risks of disease. This classification is worth studying in genomics," said Anurag Agrawal, principal scientist, Institute of Genomics and Integrative Biology, New Delhi, which also works under CSIR. "It is not enough if an ancient text defines classification; it has to be studied and proven scientifically. Ayurgenomics is a nice marriage to use old knowledge and define it further using modern tools," Agrawal added.

The institutes involved in the study included Centre for Cellular and Molecular Biology, Indian Institute of Science, Institute of Ayurveda and Integrative Medicine, Sinhgad College of Engineering and Shri Dharmasthala Manjunatheshwara College of Ayurveda.

Times Of India ND 03/11/2015 P-21

Now, heartbeats to power pacemakers

Will Eliminate Med Risks, Cost & Inconvenience Of Having Battery Replaced Every Few Yrs

Washington: Scientists are developing next-generation battery-free implantable pacemakers that may be powered by an unlikely source — the heart itself. The advancement is based upon a piezoelectric system that converts vibrational energy — created inside the chest by each heartbeat — into electricity to power the pacemaker.

"Essentially, we're creating technology that will allow pacemakers to be powered by the very heart that they are regulating," said M Amin Karami, assistant professor of mechanical engineering at the University at Buffalo School of Engineering and Applied Sciences, who is leading the research. The technology may eliminate the medical risks, costs and inconvenience of having a battery replacement every five to 12 years for millions of people worldwide, researchers said.

About the size of a pocket watch, pacemakers are implanted under the skin through an incision in the chest. Wires, also called leads, connect the device to the heart and deliver electrical signals that regulate the heart's activity.

The new wireless option does not require leads because it rests inside the heart.

"This removes a potential point of failure, but the device still relies on a battery that must be replaced as often as the batteries that conventional pacemakers use.

The idea of heart-powered pacemakers came to Karami after doing PhD work on piezoelectric applications for unmanned aerial vehicles and bridges. He wanted to apply that knowledge to the human body. The heart was an obvious choice because of its relative strength and constant motion.

"To see the heart in motion — even an animation — is to be awestruck. It moves significantly. In turn, that movement creates energy that we're just now figuring out how to harvest," said Karami.

The advancement is based upon a piezoelectric system that converts vibrational energy — created inside the chest by each heartbeat — into electricity to power the pacemaker

Karami initially designed a flat piezoelectric structure for a conventional pacemaker. A prototype generated enough power to keep the pacemaker running at a range of 7 to 700 beats per minute. With the development of wireless pacemakers, however, he has revamped the design to accommodate the smaller, tube-shaped device.

Karami, who is already talking to device-makers, is building the new prototype and expects to have animal tests done within two years. PTI

IITs to Link with Make in India, Get Rs 250 Crore Research Boost

http://www.newindianexpress.com/nation/IITs-to-Link-with-Make-in-India-Get-Rs-250-Crore-Research-Boost/2015/11/03/article3110776.ece

NEW DELHI: The Government of India has decided to leverage the research potential of the premier Indian Institutes of Technology (IITs) to meet industry demands for innovative solutions to maintain their global competitiveness.

It has created a corpus of Rs 250 crore annually with an aim of giving an impetus to the 'Make In India' campaign but under a rider that the research has to have a 'clearly defined outcome'.

"The proposal also seeks to foster academia-industry linkages in carrying out "high-end research" and promote innovations in higher educational institutes," said an official in the Human Resource Development (HRD) Ministry.

The proposal will have to abide by a specific timeframe and projects worth Rs 500 crore and above will be taken up by the IITs, where the industry could chip in with 25 per cent of the project cost and a matching contribution could come from the Department of Science and Technology, the official elaborated.

The broader contours of the programme are expected to be deliberated during the three-day Visitors conference chaired by President Pranab Mukherjee in the national capital from November 4. Prime Minister Narendra Modi, who launched the Make In India initiative to boost industry in the country in September last year, will attend the meet.

The aim is to involve the IITs in the Make In India campaign and explore their research potential, the HRD Ministry official said. The IIT Council, the governing body of all IITs, will be the coordinating agency for all the projects. The council will be mandated to reach out the industry popularising the promoting the partnership with the IITs.

"One of the objectives of the council will be highlighting the potential of individual IITs and the departments that have given these institutes their fame," the official said.

IIT Bombay, for example, is popular for its aerospace programme and is known the world over for its prowess in the discipline. Similarly, IIT Kanpur has created a reputation for itself in computer science.

The scheme would initially be limited to the IITs and could be expanded to the other centrally-funded technical institutes.

At the Visitors conference, vice chancellors of central universities and directors from NITs, IITs, IISERs and IISC would be in attendence apart from the heads of IIT.

Incubation Centre to Boost IIT Startups

http://www.newindianexpress.com/states/odisha/Incubation-Centre-to-Boost-IIT-Startups/2015/11/03/article3111072.ece

BHUBANESWAR: The IIT-Bhubaneswar will set up an incubation centre on its campus this year for students to develop their entrepreneurial ideas and startups. The centre will be ready by the new academic session of 2016-17.

Informing this to mediapersons during the golden jubilee celebration of College of Agricultural Engineering and Technology (CAET) of OUAT here on Monday, IIT Director RV Raja Kumar said students passing from the institution can stay back on campus for a period of two years and develop their entrepreneurial ideas at the incubation centre.

Farm machinery and food services will be one of the focus areas in the centre.

The IIT Director said the institution has this year entered into a collaboration with CAET for its ongoing research project to improve ground water/moisture retention in agriculture land.

For the project titled ‘Improving Ground Water Level and Quality in Eastern India for Agriculture’, both CAET and IIT have adopted three villages in Banki block of Cuttack district where solar power sensor boards have been installed to calculate changing pattern of soil moisture according to the temperature.

Over a dozen PhD students of CAET are working on the project that is being funded by the IT Research Academy (ITRA), a national programme under Ministry of Communications and Information Technology (MCIT). While the entire project cost is around Rs 3.5 crore, this year, the Central Government has sanctioned Rs 1.2 crore for IIT-Bhubaneswar and and Rs 41 lakh for CAET.