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Draft education policy may be announced by December: Smriti Irani

http://www.dnaindia.com/india/report-draft-education-policy-may-be-announced-by-december-smriti-irani-2126437

Union Human Resource Development (HRD) Minister Smriti on Friday said the draft <u>national education policy</u> will be announced 'hopefully' by December.

"For the first time, a collaborative effort has been taken from the grass root level to formulate the national education policy. We are talking to teachers, students, district magistrates and other sections of the society to formulate the policy. Hopefully, the first draft would be published in December," Irani said. She presided over the North East Zonal Consultative Meeting here with the Education ministers and Education secretaries and other officials of the region.

However, Education ministers of only Tripura, Manipur and Sikkim were present in the meeting, though representatives of all the states were at the meeting.

During her visit to National Institute of Technology (NIT), Agartala, on Friday, she said a special meeting of the NITs of the North East would be convened soon to discuss their problems and opportunities for improvements. She also directed authorities of NIT Agartala to invite at least one foreign academician in the institute for delivering lectures at least for 15 days

Asking the institute to furnish a list of foreign academicians, who may be invited, to the ministry, Irani said, "The cost of travels of the academicians would be borne by the ministry and the lectures would be video recorded for future use by the students," she added. She also stressed on the need for student exchange with other NITs of the country for benefit of the students.

National education policy to be prepared with opinion of all: Smriti Irani

 $\underline{http://zeenews.india.com/news/india/national-education-policy-to-be-prepared-with-opinion-of-all-smriti-irani_1799383.html$

Union Human Resource Development Minister Smriti Irani has said a joint effort has been initiated from the national to the grassroots level to obtain opinion to formulate a national education policy.

Agartala: Union Human Resource Development Minister <u>Smriti Irani</u> has said a joint effort has been initiated from the national to the grassroots level to obtain opinion to formulate a national education policy.

"This is for the first time citizen of India at large from national to grassroots level would give their opinion in preparing the national education policy. The draft of the policy would be ready by December," Irani told reporters on Friday night after meeting Tripura Chief Minister Manik Sarkar.

She said: "The first regional meeting covering all the eight northeastern states held in Agartala Friday. The education ministers and representatives of these states gave their views on the proposed national education policy."

The minister, who left for Delhi on Saturday, said the gram panchayat level to district, state to national level consultation on the education policy already begun across the country and the response was very enlightening.

On Friday, addressing the students and teachers of the National Institute of Technology (NIT), Agartala, she said to obtain experiences and expertise by the IIT and NIT students from world famous scientist, academician and technical experts, the MHRD has recently launched a scheme `GIAN` (Global Initiative of Academic Network).

She asked the institute to provide a list of foreign experts, who can be invited.

"The travel and other cost of the guest expert would be borne by my ministry and the deliberations would be video recorded for future use by the students," she announced.

Irani also asked the all concerned to share experience among the students of various NITs and IITs of the country and requested the NIT students to share their experience, knowledge and inventions with the people living adjoining the villages of their institute.

She also announced that a web portal "e-soudh-sindhu" would be launched by January next year and over 90,000 e-books and 10,000 journals of across the world would be available in the plat form.

The minister accompanied by HRD Secretary V.S. Oberoi (Higher Education) and S.C. Khuntia (School Education) held a meeting here on Friday with the education ministers of the northeast states to discuss the proposed national education policy.

Tripura Education Minister Tapan Chakraborty said the Friday's meeting was held as the follow up meeting of the 63rd meeting of the Central Advisory Board of Education (CABE) that was held in New Delhi on August 19.

He told reporters that in the CABE meeting, most northeast states wanted to remove the `no-detention policy` at the elementary school level (up to class 8).

Chakraborty said: "The eight northeast states along with most states of the country are not only against the `nodetention policy` but are also in an awkward position due to the lack of trained teachers even though the Right to Education Act (RTE), 2009, made this mandatory."

The minister said the Left Front government strongly supported the plan for a new education policy, a process initiated by the Bharatiya Janata Party-led National Democratic Alliance government.

NIT-T prof plans to create eco-system for innovation and entrepreneurship

http://timesofindia.indiatimes.com/city/trichy/NIT-T-prof-plans-to-create-eco-system-for-innovation-and-entrepreneurship/articleshow/49033468.cms

TRICHY: A faculty of the department of management studies at National Institute of Technology- Trichy (NIT-T), who was recently selected for the Commonwealth Professional Fellowship and returned from a programme in the UK, wants to

promote the spirit of entrepreneurship among the students and staff of the institute.

Sharing his experiences with TOI, G Kannabiran, professor, department of management studies, NIT-T, said he was planning to build a national and regional network of entrepreneurship development professionals and contribute towards creating an enabling eco-system for innovation and entrepreneurship.

The fellowship brought together senior professors from across the globe for a four-month programme, where they held discussions on the topic 'Building competencies for enabling entrepreneurship development through business incubation support in higher educational institutions'.

The professor said the concept of 'entrepreneurial university' had emerged in the UK, where educational institutions were being considered an important contributor to the 'entrepreneurship ecosystem'. Interdependent activities create an entrepreneurial culture among students and staff on the campus.

The Quality Assurance Agency for Higher Education (QAA) in the UK has mandated the universities to achieve specific levels of effectiveness in entrepreneurship development. Entrepreneurship is taught from the first year onwards. Students take up an applied project in the final year based on inputs received from the courses,. In addition, universities also encourage teachers in engineering fields to teach entrepreneurship in their respective domains, he added.

He further said that the universities abroad had a clearly defined vision for innovation and entrepreneurship. For example, Edinburgh Napier University vision says 'An enterprising and innovative community renowned internationally, with an unrivalled student learning experience'. One of the top three strategies of Napier for the period 2015-2020 focuses on building innovation, enterprise and citizenship by expanding opportunities for students to engage with or start business and social enterprises.

The professor found that the practices followed by the universities abroad for entrepreneurial development were practical and the policies adopted by the governments were also very significant.

"Universities create incubation facilities to support the students so they can develop their ideas into prototypes. Business internships are offered to students and they are provided incubation facility to carry out the work. They are mentored by agencies appointed by the government. Universities organise pitching events that enable potential entrepreneurs to present their ideas and business plans to attract funding from investors. Leading universities support regional universities," he said.

"Enterprise campus, a network funded by the Scottish Funding Council, offers free and impartial support to businesses at all stages - from business plan feedback and IP advice to events, one-to-one clinics and funding opportunities," said Kannabiran.

P-06 Times Of India ND 21/09/2015

IIT students develop tech for 'social good'

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New Delhi: A few students of Indian Institute of Technology, Delhi, are trying to "add colour" to the lives of the blind. The IIT-Delhi's chapter of the National Service Scheme includes the sub-group, Social Innovation Cell, that has been over the past two-three years developing technology for "social good". The colour sensor for the blind, a low-cost bed for blooddonation and a host of accessible computer and mobile games preceded the

"Hackathon for Social Good" the SIC is currently holding at IIT.

About 200 - most first year IIT students - attended the workshop on app development on Saturday. They'll submit their ideas and a 'prototype' on Sunday. Fourthvear chemical engineering student and NSS general secretary, Amar Srivastava says the objective of the "hackathon" was to drive home the point that you don't need to have a PhD to solve problems. "Very small interventions can make a huge difference." He arrived at this conclusion after the colour-sensor and the blood-donation bed started to look like they'd make actual difference.

The inspiration for the sensor - its final shape will be of a marker-sized pen with a built-in speaker - was Kartik Sawhney. Sawhney had battled with the CBSE to be allowed to study science in high school and had finally scored 95%. "The colour-sensor was developed keeping in mind the science students who need to check colours of compounds. You'll have to touch the compound - powder or noncorrosive liquid - and it'll tell you the colour," explains Srivastava.

It can currently detect 16 colours - it doesn't know light pink from dark pink vet - but the team hopes to make its readings more accurate. "Those born blind

> have no conception of colour so they'll have to match the names to what it

says in the books," explains Sawhney.

The collapsible contraption of hollow carbon-fibre rods, plywood and synthetic leather, that's the blood-donation bed took all of last year. They got some informal support from doctors at AIIMs but the ac-

tual international standards still elude

the team. "Currently the beds are imported and cost Rs 70,000 to Rs 80,000 each. They're also heavy and can't be transported," says NSS executive and second-year computer science student, Karan Dwivedi. The IIT version, once it's ready, will weigh 2.5-3 kilograms and cost under Rs 5,000. The

NSS chapters of the IITs had set up blood donation NGO Blood Connect.

Hindu ND 21.09.2015 P-08

Siddaramaiah urges Centre to set up IIT in Raichur instead of Dharwad

Kumar Buradikatti and Nagesh Prabhu

RAICHUR/BENGALURU: The Karnataka government has written to the Centre reconsider its decision to sanction an Indian Institute of Technology (IIT) for Dharwad with a view to ensuring balanced regional development, giving a new twist to the issue.

Chief Minister Siddaramaiah on Sunday informed a delegation led by Minister of State for Medical Education and Raichur district incharge Sharan Prakash Patil tat the State government has written to the Centre requesting it to set up the IIT in Raichur, one of the backward districts, instead of Dharwad.

Earlier, the State government had recommended three cities to the Centre for the establishment of the IIT Raichur, Dharwad and Mysuru.

An official team of the Union Human Resources Development Ministry. which visited the three cities, chose Dharwad.

However, the announce-



There were several protests in support of the demand for an IIT in Raichur early this month. During one such protest, IIT Horata Samiti president Basavaraj Kalasa was taken into custody. - FILE PHOTO: SANTOSH SAGAR

tests in Raichur district. last one week, bringing pres-Local Congress, BJP and Ja- sure to bear on him to write nata Dal (S) leaders blamed to the Centre seeking reversthe State government for not all of the decision. recommending the name of Raichur effectively.

gion and Raichur district ment Smriti Zubin Irani for ment

ment triggered political pro- on several occasions in the

Mr. 16, Congress delegations from thanked Union Minister for necessary assistance called on Mr. Siddaramaiah granting an IIT to the State institute."

Karnataka had recommended Raichur, Dharwad and Mysuru for setting up IIT

but urged her to reconsider the decision, this time favouring Raichur.

In the letter, a copy of which is available with The Hindu, he said: "As you are aware, a decision was taken earlier to set up an IIIT at Dharwad. Keeping this in view, and also Raichur being the district headquarters located in the backward Hyderabad Karnataka backward region enjoying special status under Article 371-J of the Constitution, it would be appropriate to establish the proposed IIT in Raichur. This will help in balanced regional development to which our State is committed."

The Chief Minister also as-In a letter on September sured the Centre of the State Siddaramaiah government "extending all the Hyderabad Karnataka re- Human Resources Develop- cooperation in the establishजोधपुर आईआईटी के छात्रों ने बनाया लाइफ सेवर एप

हार्ट अटेक आने पर डॉक्टर व परिजनों को मिलेगा मैसेज

पूनमचंद विश्नोई | जोधपुर

आईआईटी जोधपुर में थर्ड ईयर के तीन छात्रों क्षितिज मिनोचा, राजन वाघेला और सिद्धांत जैन ने एक लाइफ सेवर एप बनाया है। यह हार्ट अटैक आते ही मरीज के सभी रजिस्टर्ड परिजनों व डॉक्टर को अलर्ट भेजेगा। जीपीआरएस से मरीज की लोकेशन भी भेजेगा। साथ ही उसके मोबाइल पर एक हैल्प सायरन बजने लगेगा और एक वीडियो शुरू हो जाएगा, जिसमें सीपीआर देने के तरीके बताए जाएंगे, ताकि पास में जो भी हो वह आसानी से उसे सीपीआर दे और मरीज की जान बच जाए। कोई सीपीआर देता है और मरीज की हालत सुधरती है तो एप फिर से परिजनों को यह जानकारी भेज देगा।

इस दौरान मोबाइल स्क्रीन पर 5 किलोमीटर के दायरे में आने वाले सभी हॉस्पिटल की सूची दिखेगी, ताकि मरीज को तुरंत अस्पताल भी पहुंचाया जा सके। इस एप को हाथ पर घड़ी या बेंड की तरह पहनना होगा, जो मोबाइल से कनेक्टेड रहेगा। यह घड़ी रक्त प्रवाह व धड़कनों पर नजर रखेगी।

'Make Water, Power a Priority': IIT Madras Director

http://www.newindianexpress.com/cities/chennai/Make-Water-Power-a-Priority-IIT-Madras-Director/2015/09/21/article3039126.ece

CHENNAI: "Automatic garages and refrigerator that order food 'smartly' when it starts emptying out are not exactly what the city is looking for in terms of 'smart city technology'. It is important to effect changes on certain areas, like water, power, transport and wireless systems first," said Bhaskar Ramamurthy, director of IIT Madras at the 21 Advanced Computing and Communications Conference organised by IIT-M and Advanced Computing and Communications Society (ACCD).

Speaking on what are the requisites of a smart city, he explained that these essentials areas should be strengthened. The per capita usage has to be reduced — be it fresh water usage, road space or even motor fuel. Currently an average person utilizes 140 litres of water a day in the city. If this can be brought down to 50 litres, then the city will be able to meet its growing demands for water, he explained. Moreover, 70 per cent of laundry water is found to be reusable by directing it to rooftop gardening and cleaning. Same goes for transport, which he thinks can be cut down once mass-public transport system can be made more attractive, so as to facilitate in migrating the majority road occupiers — two wheeler riders. Currently, most major cities have only 6-10 per cent free road space, with the sole exception of Delhi (18 per cent) with Metros being an essential mode of transport for a vast majority.

Focus-areas for smart cities

- Taking Agriculture and Industries off grid dependence thereby reducing state's power demand by 50% during peak hours
- Plugging leaks would save 40-70% water supplied to city
- Better local storage and cheaper pipelines for water supply
- Making public transport a coo' option, as road space is down to 6-10%
- Expanding spectrum for more broadband



[प्राची वर्मा | नई दिल्ली]

इंजीनियरिंग और संगीत, पेंटिंग या डांस के बीच क्या संबंध है? ऐसा लगता है कि इनमें बहुत गहरा नाता है। देश के प्रीमियम इंजीनियरिंग इंस्टीट्यूट्स आईआईटी के स्टूडेंट्स को ऑल-राउंड डिवेलपमेंट के लिए अब इनमें से कुछ स्किल्स की भी टेनिंग दी जा रही है।

निखिल जैन की आर्ट और म्यूजिक में दिलचस्पी थी, लेकिन अपने पैरेंट्स की इच्छा और साथी स्टूडेंट्स के साथ कॉम्पिटिशन के दबाव की वजह से उन्होंने वाराणसी में इंडियन इंस्टीट्यूट ऑफ टेक्नोलॉजी में एडिमशन लिया, जहां वह डुअल डिग्री (बीटेक और एमटेक) के स्टूडेंट हैं। हालांकि इसके साथ ही निखिल ने ह्यूमन वैल्यूज पर एक कोर्स में भी एनरोलमेंट कराया है, जो ऐसा विषय है जिसे आमतौर पर प्रोफेशनल इंजीनियरिंग डिग्री से जोड़कर नहीं देखा जाता।

आईआईटी के करिकुलम में अब पोएटी, थियेटर और म्यूजिक जैसे लीक से हटकर विषय भी जगह बना रहे हैं। इसका मकसद आईआईटी ग्रेजुएट्स को ज्यादा स्मार्ट और बैलेंस्ड बनाना है। निखिल और उनके बैचमेट्स जब आईआईटी से बाहरी दुनिया में निकलेंगे तो उनके पास इंजीनियरिंग की नॉलेज के साथ ही ऐसे स्किल्स भी मौजूद होंगे, जिनसे वास्तविक दुनिया की समस्याओं से निपटने में मदद मिलती है। आईआईटी के ज्यादातर स्टूडेंट्स को अब फिजिक्स, मैथमैटिक्स और कंप्यूटर साइंस जैसे मुख्य विषयों के साथ ही पोएटरी, सेरामिक्स, फ्योजिक एप्रिसएशन, थ्रिथेटर, म्यूजिक और डांस जैसे विषयों में भी क्रेडिट्स लेने की आवश्कयकता.होगी।

इन विषयों का उद्देश्य स्टूडेंट्स के जीवन से तनाव को दूर करना है।आईआईटी गुवाहाटी के डाबरेक्टर गौतम बिस्वास ने बताया, 'आईआईटी में पढ़ाई मैंकेनाइण्ड होती है और बहुत से स्टूडेंट्स पर इसका असर पड़ता है।' उन्होंने कहा कि आईआईटी के 10 में से 3 स्टूडेंट दबाव महसूस करते हैं जिससे डिप्रेशन भी हो जाता है। उनका कहना है, 'इन स्टूडेंट्स को गैर-अकादिमक विषयों के साथ तनाव दूर करने की जरूरत होती है। इससे उनसे दिमागी ताकत बेहतर करने में भी मदद मिलेगी।' राजधानी में फोर्टिस हेल्थकेयर के

डिपार्टमेंट ऑफं मेंटल हेल्थ एंड बिहेविरल साइंसेज के डायरेक्टर समीर पारेख ने बताया कि इंजीनियरिंग, फाइनेंस, मेडिसिन जैसी सभी फील्ड के प्रोफेशनल्स इस तरह के तनाव का सामना करते हैं और इससे निपटने में रोइटिंग, डांसिंग या सिंगिंग से मदद मिल सकती है। उन्होंने कहा, 'अगर इन स्किल्स को आईआईटी जैसे हायर एजुकेशन सिस्टम का हिस्सा बना दिया जाए तो यह तनाव दूर करने के टूल के तौर पर काम करेंगे।' रिक्रूटर्स भी मानते हैं कि इससे आईआईटी जैसे प्रीमियम इंजीनियरिंग इंस्टीट्यूट्स के स्टूडेंट्स को ज्यादा क्रिएटिव और बैलेस्ड बनने में मदद मिलेगी। गोदरेज कंज्यूमर प्रॉडक्ट्स लिमिटेड के हेड (ह्यूमन रिसोर्सेज) राहुल गामा ने कहा, 'जब हम इंजीनियरिंग और बिजनेस स्कूलों से हायरिंग करते हैं तो हमारी स्ट्रैटेज़ी ऐसे स्टूडेंट्स को आकर्षित करने की होती है, जो काम के बाहर अपनी हॉबीज को लेकर उत्साही हों।'

आईआईटी, भुवनेश्वर ने हाल ही में बीटेक के विषय के तौर पर ओडिसी नृत्य की शुरुआत की है। आईआईटी, गुवाहाटी ने असमी सतिरया नृत्य, इंस्ट्रूमेंटल म्यूजिक (तबला और वॉयलिन) हिंदुस्तानी संगीत जैसे लीक से हटकर कोर्सेज पेश किए हैं। आईआईटी, वाराणसी में प्रत्येक स्टूडेंट को हर सेमेस्टर में कला से जुड़ा एक विषय चुनना होता है। इन विषयों में पेंटिंग, म्यूजिक और डांस शामिल हैं। आईआईटी, हैदराबाद ने पिछले सेमेस्ट्र में पेंटिंग, पोएटरी, क्ले मॉडलिंग, थियेटर और डांस जैसे कोर्सेज शुरू किए हैं। इंस्टीट्यूट के प्रत्येक स्टूडेंट के लिए 'क्रिएटिव आट्से' के तहत इनमें से कम से कम दो कोर्सेज को चुनना अनिवार्य है। इंस्टीट्यूट के डिजाइन डिपार्टमेंट के हेड जॉन मैथ्यू ने बताया, 'हमारा इरादा प्रत्येक सेमेस्टर में क्रिएटिव आर्ट्स में नए कोर्स जोड़ने का है। अब हम सेरामिक्स को जोड़ने जा रहे हैं और भविष्य में हम इन कोर्सेज के लिए क्रेडिट्स भी बढ़ाएंगे। अक्सर ऐसी शिकायतें मिलती हैं कि इंजीनियर्स में लाइफ स्किल्स की कमी है। इन कोर्सेज से स्टूडेंट्स को समाज और देश से जुड़ने में मदद मिलेगी।' हालांकि, देश के सभी आईआईटी में अभी इस तरह की शुरुआत नहीं हुई है। आईआईटी, बॉम्बे और आईआईटी, दिल्ली में अभी तक इन तरह के कोई लीक से हटकर विषय नहीं पढ़ाए जा रहे।

Is India preparing her students for the rapidly changing world?



STEVEN EDWARDS

eare living in an era of highstakes testing and global comparisons, and the need for re-examining the world's educational systems is critical. The real challenge for schools is threefold: to prepare students to thrive in a competitive global labour market after completing their education; to achieve community harmony on a global scale; and to promote cultural diversity and the value of universal citizenship in a global community.

It is evident that schools in India (in fact, in most countries) have not kept up with the pace of change in the global society, and are therefore not preparing students well enough for real-world life and the working environment they will face after they have finished their education.

Students today need to learn valuable 21st century skills. For children

to be competitive in the future, is itessential that India transitions to an educational system that cultivates relevant skills which will contribute to global citizenship. Currently, schools in India prepare students to be effective task takers, but that alone will not prepare them to thrive in this rapidly changing world. Emphasising test scores above all else not only puts great pressure on children, it also fails to teach them critical skills like collaboration, communication and multi-level critical thinking. Doing well on a mathematical test does not adequately prepare a student for the challenges of real-life; rather to excel in the future, students must know how to apply mathematical concepts, not simply answer them.

Further, students need to develop skills. For instance, many of us who work in an office constantly work in teams. To be effective in a team, we all need to have strong collaboration and communication skills. But simply sitting in a classroom, listening to a teacher, memorising facts, and then taking an exam does not help students develop these essential skills. Education need to change and needs to cater to the changing world. Students must practice what they need to learn. Essential skills can not be

learned by reading or talking about them—they must be practised.

Some schools in India are talking about developing 21st century skills in children, but these schools are definitely not advanced enough in my opinion. For instance, all the schools I visited in India still have closed classrooms where children are sitting and are listening to a teacher. But in work and career experiences, nobody sits in a closed room and listens to one person standing in front of the room. To really change education, India needs to build new schools from the ground up, where differentiated learning spaces replace these closed classrooms; where students work in groups on projects with the teacher acting as a guide rather than a content expert; and where school life and the life after school is bridged.

I believe every child is unique and that a school has the great responsibility in discovering this uniqueness. Sadly, most of India's schools don't even look at the child. Instead of starting with the child's passions and interests, schools start with the curriculum as the main point of view and hire teachers around that. The uniqueness of the child is completely forgotten. A child's learning goes so much deeper when s/he is challenged

on his/her own passions and interest.

The picture is not all bleak, however. There are great schools in the world which are rewriting history by changing the way teaching and learning occur. Some of these forward-thinking schools have formed an international alliance, the "Global Schools' Alliance", to further the cause of changing schools and to share ideas, best practices, and data on effective teaching and learning.

To prepare India's future workforce, one that can compete with the
world, the focus should not just be on
educating people. The quality and
kind of school education offered will
make all the difference. India must
build new schools from the ground
up, led by people who have the right
mindset, knowledge and skill-set,
and who are passionate about changingeducation and are willing to learn
from around the world. The change
needs to start now, lest we deprive an
entire generation of children great
opportunities that await them.

Dr Steven Edwards is the co-founder of Vega Schools; he has helped create some of the most successful schools in the US and has advised the White House about change in education starparents.org/dr-steven-edwards/

Poorest district Nabarangpur gets a helping hand from premier institute IIT-Bombay

IIT-Bombay has offered free audio-visual tutorial-based training in information technology in Odisha's Nabarangpur, which has among the lowest socio-economic indicators in the country and is grappling with an implosive skilling deficit.

http://indianexpress.com/article/india/india-others/poorest-district-nabarangpur-gets-a-helping-hand-from-premier-institute-iit-bombay/

India's poorest district has been offered a helping hand by one of its premier engineering institutes.

IIT-Bombay has offered free audio-visual tutorial-based training in information technology in Odisha's Nabarangpur, which has among the lowest socio-economic indicators in the country and is grappling with an implosive skilling deficit.

The project enables the use of spoken tutorials to teach free and open source software in regional languages at three different levels of expertise: beginner, intermediate and advanced. If the initiative takes off successfully, those who complete these courses may even be able to purchase specially developed laptops priced at around Rs 7,500.

"We have got in touch with the district administration about this. The project will help students get better marks in examinations and increase employment avenues," IIT-Bombay's Prof Kannan M Moudgalya, who is spearheading the initiative, told <u>The Indian Express</u>.

When contacted, the District Collector's office in Nabarangpur confirmed the offer and said that a "coordinator" from the Government Polytechnic College will likely be deputed to liaise with IIT-Bombay for the "smooth rollout" of the project.

Nabarangpur is the focus of a year-long assignment launched by The Indian Express on August 15, 2015, to track poverty and transformation in India's poorest district. This newspaper had reported on September 5 about the yawning gap between demand and supply of trained labour in the district, which has just four degree colleges — none of them run by the Government — and one Industrial Training Institute (ITI).

Of the 32 students who cleared their two-year electronics-mechanical certificate course last year at the ITI in Umerkote, 60 km from the district headquarters, only three landed jobs. A majority are tribals from an extremely backward belt, almost all of them hobbled by lack of confidence, poor communication skills and "weak basic education".

The IIT-Bombay project includes audio-video demonstrations dubbed in local languages and targets schoolchildren, college students, working and retired professionals, housewives, teachers, trainers, research scholars, and software users and developers.

The courses, training, day-to-day guidance and certificates under the project named FOSSEE — an acronym for Free Open Source Software for Education — are available free of cost, said Prof Moudgalya.

"The spoken tutorial project is about teaching and learning a free and open source software, such as Linux, Scilab, LaTeX, PHP & MySQL, Java, C/C++, LibreOffice, by way of an easy video tool — spoken tutorials. It is highly conducive to self-learning," he said.

Moudgalya is a professor of Chemical Engineering, Systems and Control, and Educational Technology at IIT-Bombay, and is "also focussed on spreading education on a massive scale".

According to him, the tutorial has been tried out by an estimated 9 lakh students and teachers across 65 universities in all states, including students from the rural areas of Tamil Nadu and Gujarat.

"As one gets started, any student or faculty can master the FOSS and also get certificates — Silver/Learner's and Gold (based on clearing an assessment test). Once the project is rolled out, a second step involves a plan by IIT-B to make available a low-cost laptop that it has developed, dubbed as the "FOSSEE laptop".

Currently in the pilot phase, the laptop is funded by the National Mission on Education through Information, Communication and Technology and aims to promote IT literacy and the usage of FOSS apps, and is priced around Rs 7,500. "It has already been tried out in IIT Bombay on first-year BTech students," Prof Moudgalya said.

According to him, the roadmap for Nabarangpur involves a schedule to firm up a tentative timeline for the launch of the spoken tutorial-based IT training, starting with one or a few educational institutions, and then expanding the courses to schools and junior colleges in a progressive manner.

These tutorials were launched in July 2011 and is currently deployed nationwide in degree colleges, polytechnics, ITIs and even schools, NGOs, government offices and some corporates.

The training is done using a website that is a hub of tutorial classes, coupled with original software of programming, animation, graphics, EDA (electronic design automation) tools, computational software, utility software, software for schools students and others. The users have to select and download the software, install it and start practicing.

The situation at educational institutions in Nabarangpur is reflected at the ITI, where students are faced with the situation of classes not being held because of lack of teachers. "External intervention in the local language, especially during periods when regular teachers are not available, would be a big help," said B K Dalai, a part-time guest instructor at ITI, Umerkote.