

मुश्किलों को हराना सिखाएं आईआईटी

आईआईटी से जुड़ी तमाम बातों, पहलुओं और शिक्षण पद्धति का अध्ययन करने के बाद एक तस्वीर शीशे की तरह साफ हो जाती है कि सभी संस्थानों को आत्मचिंतन करना ही होगा। उन्हें इस तथ्य की गहराई में उतरना होगा कि आखिर ऐसा क्यों हो रहा है?

आनंद कुमार,
सुपर-30 के संस्थापक

आर पिन आईआईटी जैसे संस्थानों से आने वाली आवेदनपत्रों की खबरों ने जहां समाज को झकझोर दिया है, वहीं इस विषय पर एक नई बहस भी छिड़ गई है। देश ही नहीं, बल्कि पूरी दुनिया आईआईटी को प्रतिष्ठित संस्थान के रूप में देखती है और इस संस्थान में पढ़ने वालों की चर्चा बतौर रोल मॉडल होती है। अब वही वां वहां से पढ़ाई पूरी करके बाहर आए और खुद को, अपने मां-बाप की और साथ ही समाज की उम्मीदों, और सपनों को पूरा करे, उससे पहले उनके आवेदनपत्रों की खबर आना बेहद

निराशाजनक क्षण होता है। इस तरह की परेशान और निराश कर देने वाली घटनाओं से जुड़े सवाल का जवाब खंडना बेहद जरूरी है।
सवाल यह कि आईआईटी में चयन और वहां से एक कामयाब इंजीनियर बनकर बाहर आने से पहले छात्र ऐसा कदम क्यों उठा रहे हैं? आईआईटी में प्रवेश और कुछ वर्षों की पढ़ाई के बाद होनाहार विद्यार्थी आवेदनपत्रों में ही क्यों ज्यादा सुझन महसूस कर रहे हैं? जिंदगी की राह में चलते-चलते लोगों को इतनी निराशा क्यों हो रही है? अब यकत आ गया है, जब इसके कारण और निवारण दोनों ही पहलुओं पर गहन चिंतन किया जाए। नहीं तो यह दिन दूर नहीं, जब इन होनाहारों के रिसर पर

कामयाबी का सेहरा बंधने से पहले दरवाजे पर आवेदनपत्र दस्तक दे। आईआईटी से जुड़ी तमाम बातों, पहलुओं और शिक्षण पद्धति का अध्ययन करने के बाद एक तस्वीर शीशे की तरह साफ हो जाती है कि सभी संस्थानों को आत्मचिंतन करना

ही होगा। उन्हें इस तथ्य की गहराई में उतरना होगा कि आखिर ऐसा क्यों हो रहा है? क्या पढ़ाई में दबाव का असर हर दिन बढ़ता रहा है? जरूरत इस बात की है कि आईआईटी आवेदनपत्रों के हर मामले की गहन तपतीरा करे। देखा यह जा रहा है कि कई मामलों

में कारणों तक का स्पष्ट खुलासा नहीं हो पा रहा है। जब तक साफ वजह पता नहीं चलेगी, तो कैसे उसके निवारण ढूंढे जा सकते हैं? अब यह भी साफ हो गया है कि आईआईटी जैसे संस्थानों में, जहां से देश को होनाहार इंजीनियर, वैज्ञानिक मिल रहे हैं, वहां छात्रों पर पढ़ने वाले अतिरिक्त दबाव को कम करने के कोई इंतजाम नहीं है। जरूरत इस बात की भी है कि दबाव दूर करने के लिए विशेष कार्यक्रम शुरू किए जाएं। निरिक्त समयावधि में प्रत्येक छात्र के साथ व्यक्तिगत काउंसलिंग की व्यवस्था हो। इससे समस्याओं के निदान में सफलता मिल सकती है। यह चिंतन भी किया जाना चाहिए कि कहीं ऐसा तो नहीं कि आईआईटी में जाने के

बाद पढ़ाई इतनी बोझिल हो जाती है कि छात्र तंग आकर मीत को गले लगा रहे हैं। यदि ऐसा है तो प्रायश्चित्तों को पढ़ाई रोचक तरीके से पारोने की शुरुआत कर देनी चाहिए। छात्रों को इस बात का अहसास कराने की जरूरत है कि जिंदगी धूप और छांव की साझा तस्वीर है। लिहाजा उन्हें इस सच्चाई को समझने की आवश्यकता है। गौमन बुद्ध का संदेश भी यही था कि अगर ईमान सच और दुख दोनों को गले लगाने की आदत डाल ले, तो सभी कष्टों का नाश हो जाएगा। छात्र को भी सिखाएं कि वे मुश्किल से खड़े नहीं, बल्कि कष्टमय भी यही धाराएं और कामयाब ईमान कहलाएंगे, कायर नहीं।
पढ़ें मुश्किलों @ अगले पेज पर

कहां कितनी सीटें

17 आईआईटी	13 आईआईएम
9,885 सीटें	3,335 सीटें
30 एनआईटी	381 मेडिकल कॉलेज
15,485 सीटें	50,000 सीटें
25% छात्रों को उच्च प्रदर्शन के कारण तैयार करने को कह दिया जाता है।	04 लाख से उच्च छात्र आईआईटी जैसे संस्थानों में ही रह सकें।

Multidimensional career opportunities for PhDs

MANY OPTIONS Besides academics, a PhD opens up a plethora of opportunities in a host of sectors, writes Ravichandra M

One are the days of staunch belief that "PhD is a degree useful only to become university professor." Though academic positions in universities and colleges are first choice of PhD holders, it is not the only option for current generation research aspirants. As emphasized by Prof. Pankaj Jalote, Senior Professor at Dept. of Computer Science and Engineering, IIT Kanpur in their web portal, Students interested to pursue research but not willing to take up academic/teaching positions should not hesitate to take up doctoral studies because of this reason alone. Today there are multiple career opportunities for researchers in Industry, Research & Development labs and Allied fields. Here is an attempt to put in nutshell prerequisites, skill sets and career opportunities for PhD scholars. PhD (Doctor of Philosophy) as we all know is highest degree given in any discipline. It is a degree that adds two dimensions to your profile: "Skills" & "Knowledge". Employer (Industry R & D Labs)

are often interested in your skills and utilize it for their innovations and product development whereas educational organization can utilize your knowledge as an academician.

The Life-Cycle
Most of the universities have following process for earning a PhD degree, it starts with an Entrance examination, qualified candidates face an interview on successful completion have to take up course work examination (where subjects in your area of research are dealt in depth), on succeeding in course work exams, candidates have to define their problem by extensive literature study and most universities expect you to defend it among a panel of researchers termed as comprehensive viva. On successful completion candidates can start actual research work publish papers and experimental results and finally come up with dissertation to be defended in front of an expert panel. The whole process should take up 3 to 5 years. Majority of Universities offer PhD pro-



grammes in both Full-time and Part-time basis. Most important prerequisites for part-time PhD scholars is getting Principal Investigator/ Guide/Supervisors consent to guide you. According to many professors and veteran researchers, Pursuing PhD does not require extreme intelligence, though brilliance helps in speedier progress. Patience, perseverance, hard work, and motivation are keys to success. One more misconception among student community is that inventing a new product alone gets you doctorate, but the

truth is not only formulating a new problem and solving it, also solving existing problems with a different approach, improving existing solutions can also lead to award of degree.

Plethora of Career Opportunities
One can find out multiple avenues for researchers apart from academic positions. Some of them are as follows:

- **Entrepreneurship:** There is always encouragement for young entrepreneurs from policy makers/Governments to start up new firms and as doctorate you can start

your own organization and realize innovative dreams come true.

- **Writing:** By the time you obtain doctorate, your writing skills would have honed tremendously, a boon in disguise to pursue a career in media that either publish/broadcast technology news as a technical researcher, Provide financial expert opinions in a Economy channels, Medical and pharmacy related expertise in health channels. Legal expertise and Educational expert opinions to name a few.

- **Venture Capitalist:** You do not want to tie up with one single organization but can have a passion to help new start-ups to realize their dreams in the role of venture capitalist.

- **Consultant:** Consultancy is second love for most Doctorates, after teaching. It is this profession that provides flexibility and freedom for Researchers to share their ideas equally with Industry and Universities.

- **Public Sector Service:** Doctorates are always in demand for making public policy decisions in Governments as technical advisors. Also if your patriotic intuitions drive you for defense and military, research opportunities in defense organizations should be interesting option.

- **Technology Transfer:** It is a process of transferring patents from research labs to industries for market production. This transition process desires skills of a Doc-

torate and is interesting avenue for PhD graduates.

- **Pharmaceutical/Information Technology/Bio Technology/Finance/ Law Industries** to name a few utilize the services of researchers in their organizations for product development and service development.

- **Sales:** Organizations involved in developing technical complex products rely on sales managers capable of understanding technically complicated gadgets and Doctoral candidates in respective areas have better chances of joining such work force.

There are plenty of blogs and other Internet resources available that provide fair idea on career options that one can explore with doctorate as a fruitful educational accomplishment. PhD can culminate with immense satisfaction of prefixing the two characters "Dr." with your name with significant monetary gains too. If even after doctorate your thirst for education doesn't subside, no problems continue with Post-Doctoral studies in some reputed national or international university!

Word of Caution: PhD has value provided you obtain it from a reputed university (verify the credentials of awarding body before starting) as there are plenty of PhD selling schools around us which violate regulatory body rules.

उच्च शिक्षण संस्थानों में हो रही आत्महत्याएं क्यों साथ छोड़ रहे ये हीरे?

उन्हें भावनात्मक सहाया दें

डॉ. एम. आनंदकुमार,
पेरवेर गैंगुलि, आईआईटी काशीपुर

आ आईआईटी और केंद्र संस्कार से सहायता प्राप्त तकनीकी संस्थानों के छात्रों में बढ़ते तनाव और आत्महत्याओं को रोकने के लिए मानव संसाधन विकास मंत्रालय द्वारा एक टास्क फोर्स का गठन किया गया था। इस टास्क फोर्स ने छात्रों में आत्महत्या की प्रवृत्ति को रोकने के लिए एक व्यापक रिपोर्ट के जरिए अनुसंधान पेश की थी। टास्क फोर्स में प्रतिष्ठित संस्थानों के प्रोफेसर लोग शामिल थे। हमारा बड़ा मकसद यही था कि छात्र आत्महत्या क्यों कर रहे हैं?

इस रिपोर्ट में हमने कुछ कारण दिए। पहला बड़ा कारण था, व्यक्तिगत ज़ाबानी, यानी घर-परिवार में किसी की मौत या हादसा। जो छात्र इससे गुजर रहे होते हैं, वह पढ़ाई के दौरान काफी व्यथित होते हैं और उन हालात से उबर न पाने के कारण मौत को गले लगा लेते हैं।

दूसरी बड़ी वजह थी, हीनता ज्ञान। कुछ छात्र बहुत ही गरीबी

अनुभवाओं की थी। अब उन अनुभवाओं को क्या हुआ, इसका बारे में मुझे जानकारी नहीं है। लेकिन अभी जो आत्महत्याएं हो रही हैं, वह दुर्भाग्यपूर्ण है, लेकिन हमें दोनों पहलुओं पर गौर करना होगा। यह कहना कि ज्यादा पढ़ने वाले और प्रतिभावान छात्र भी आत्महत्या कर रहे हैं, तो जो कुछ आईआईटी में पढ़ते हैं, वो सभी होशियार और पढ़ने वाले होते हैं। कई संस्थानों में बहुत सारे 'पॉपुलर' लड़के होते हैं, लेकिन आईआईटी की डिग्री लेने के लिए सभी को 'प्रिपर प्रेजेंट्स' लेनी पड़ती हैं। अगर वे ऐसा नहीं करते, तो फिर प्रबंधन उन्हें ज्यादा बड़ा लेकर कार्य पूरा करने के लिए कहता है। इसमें प्रबंधन की कोई गलती नहीं है। छात्र पढ़ाई में होशियार हो सकता है, पर काम बनाने पर ही पूरा करना पड़ेगा। अगर वे नहीं करते, तो डिग्री में पिछड़ेंगे और फिर उन्हें बार-बार अपमानित किया जाएगा उठा लेते हैं। ऐसे में छात्रों को भावनात्मक सहायता की बहुत जरूरत होती है और वह काउंसलिंग के जरिए संस्थान को मुहैया करना चाहिए। लेकिन छात्र छात्र की ओर से परेशानी साझा करना बहुत जरूरी है।

महेश यह कह देना कि आईआईटी को शिक्षा ज्यादा बोझिल हो गई है और छात्रों पर पढ़ाई का दबाव है, तो यह तर्क कदाई ठीक नहीं है। आईआईटी का सिस्टम खराब नहीं है, बल्कि वहां तो एक समपूर्ण व्यक्तित्व तैयार करने के प्रयास होते हैं। अगर कुछ छात्र ऐसा नहीं कर पाते हैं, तो उसकी अलग और निजी वजहें हो सकती हैं। आईआईटी में किसी छात्र को फिटार्यों और एक कर्म के तर्क सीमित नहीं रखा जाता है। वहां खूब आसानी संवाद होता है, रचनात्मक गतिविधियां होती हैं। फिर भी किसी छात्र को समस्या है, तो उसे फौरन साझा करना चाहिए, वहां उसका हल निकाला जाता है।

दूसरा यह तर्क भी सारसम गलत है कि नए आईआईटी खुलने से स्तर कमजोर हो रहा है, छात्रों को अच्छा फ्लेसमेंट नहीं मिल रहा है। बहुत सारी गतिविधियां कक्षा से बाहर होती हैं, इनमें सोशल, साहटिफिक और इनोवेशन सब शामिल हैं। एकेडमिक तो सिर्फ 30 फीसद ही है, ऐसे में ज्यादा तनाव का संकलन ही नहीं उठता। अमीरों में तो हमारी आईआईटी की तारीफ होती है, लेकिन हम उन्हें नकारने में लगे हैं। अभी भी आईआईटी देना का बेहतराना संस्थान है और वहां सर्वोत्तम छात्र भर्त हो रहे हैं।

(लेखक छात्र आत्महत्या रोकने के लिए बने टास्क फोर्स के अध्यक्ष थे)



एक युवा की कहानी...

सार-सम्भाल ने बदले हालात

यह एक ऐसे बच्चे की कहानी है जो टेलेटड भी है और इमोशनल भी। माता-पिता और एक बहन। परिवार भी ज्यादा बड़ा नहीं है पर जितना है वो बच्चा उससे बड़ा कुछ है। कौचिंग के बिना अपनी स्वाभाविक प्रतिभा से उसका चयन आईआईटी में हो गया। यहीं से कहानी बदल जाती है। बच्चे पर इमोशन हावी हो जाते हैं। कैरियर, उससे मिलने वाला अयाह वेतन और शाहो-शौकत भरी जिन्यायी उसे अपने छोटे से परिवार से भी छोटी लगने लगती है। वह अपना फैसला सुना देता है-मुझे कहीं नहीं जाना। आप ही के साथ रहना है। इसी शहर में रहना है। माता-पिता बेचारे परेशान। एक तरफ बेटा दूसरी तरफ लम्बे-चोड़े अरमान। अपने

जा निर 'होम सिक्नेस' की वजह से अवसाद में गए और फिर परिवार की सार-सम्भाल से उबरने आईआईटी के एक छात्र की कहानी। जिसने न सिर्फ टॉप किया, बल्कि आज एक एमएनसी में अपनी चमक बिखेर रहा है।

सिक्नेस थी, गौली ने उसको दूर किया। सात दिन बाद उसने आईआईटी आवेदन कर लिया। माता-पिता उसके पास नियमित जाते रहे। मेधावी था ही, पढ़ता ही नहीं, सभी महोत्सव टॉप किए। ग्रेजुएट मंडल लिया। पीजी किया और आज एक बहुराष्ट्रीय कम्पनी में बड़े ऑफिस पर है। खुद की ही नहीं, खानदान की सूरत बदल गई है। आज भी परिवार उसके लिए सब कुछ है। पूरी कहानी का सन्देश यह है कि- 'बच्चे को पूरी जिम्मेदारी माता-पिता को है। जब तक वह मजबूती से अपने पैरों पर खड़ा नहीं हो जाए, उसके साथ रहे। उससे खूब बात करें। समस्या ही तो डीकर से बात करें। अपने को भूल जाएं। बच्चे का भविष्य नहीं, उसका अस्तित्व याद रखें।'

ता रे और बच्चे की चमक में कोई फर्क नहीं है। दोनों की चमक हीरे की तरह इस दुनिया को रोशन करती है। जिस तरह आसमान से तारा टूटने पर उसकी चमक कम होती है, वैसे ही एक बच्चे की मौत दुनिया को उसकी चमक से महरूम कर देती है। कैरियर को लेकर हो रही देश के मेधावी छात्रों की मौतें भी ऐसी ही हैं। हर साल आईआईटी और एम्स जैसे उच्च शिक्षण संस्थानों में प्रवेश के लिए प्रयासरत और प्रवेश पा चुके कुछ हीरे तनाव में ऐसा कर रहे हैं। इससे पहले कि किसी तरह के तनाव या दबाव से ऐसा ही कोई और जिंजीरी से निराश हो, मौत को गले लगाने की सोचें, आप उसे गले लगा लीजिए। थोड़ा-सा ध्यान देकर उसे आज का लीजिए। कैसे हो सकता है यह सब, इसी पर पढ़िए आजा का सपने जैकेट...

तथा हैं कारण और निवारण

अधिक समय तक दबाव की स्थिति नहीं रखें

क्या युवाओं में मानसिक दबाव बढ़ रहा है ? उच्च शिक्षा में प्रतिस्पर्धा के चलते मानसिक दबाव बढ़ रहा है। जबपुत्र में ही एक मनोचिकित्सक के पास हर रोज पांच-छह केस आते हैं। दबाव किस क्षेत्र में ज्यादा है ? मैट्रिकल और आईआईटी के कम्पटीशन ज्यादा दफ है। एम्स/बीएस में पिछला डीपुस व पीजी सीट कम है। एक तो एट्रेस में दबाव बहुत ज्यादा और दूसरा डीपुस भी सोखनी पड़ती है। आईआईटी में भी प्रवेश एवं कोर्स के दौरान और फिर जॉब प्लेसमेंट में प्रतिस्पर्द्धा बहुत बढ़ गई है। इस दबाव का युवाओं और उनके परिवारों पर क्या प्रभाव पड़ रहा है ? विद्यार्थी के धक्का ज्यादा रहने लग जाते हैं। वे सामाजिक रूप से कट जाते हैं। नींद में समस्या शुरू हो जाती है। तनाव से पेट संबंधी

समस्या बढ़ जाती है। एकाग्रता में कमी आती है। मांसपेशियों में खिंचाव व सिरदर्द की शिकायत, पचराहट, चिड़चिड़ापन, उदासी और काम में अक्षी। इससे बचने नरो की सुझावत करने लगते हैं। कोई युवा या युवती इस दौर से गुजर रही है, इसकी पहचान कैसे हो सकती है ? मानसिक तनाव से वाददातन कम हो रही है। हीन भावना। भूलने की शिकायत। अनीष्ट की आशंका रहने लगती है। स्ट्रेस तीन कैटेगिरी में विभाज्य देते हैं। मानसिक, शारीरिक और सामाजिक। बुरे सपने। सिर में भारीपन या सिरदर्द की शिकायत, सांस लेने में चुटन, पेट में गड़बड़ी, पेट टाइट होना। हाथ-पैरों में झलनाटाट व सुनापन। ऐसा युवा या युवती परिवारों से कटे रहते हैं और छोटी-छोटी बातों पर झगड़ने लगते हैं। परेन्स पर इल्मना लगाने लगते हैं। पढ़ाई से अक्षी होने लगती है।

(जैसा कि डॉ. अनिलक त्यागी ने योग्य योगी को बताया)

डिप्रेशन को पहचानें और तुरन्त उपाय करें

तुरन्त खर्ची जीवन में कई बार उदारी अनुभव करता है। कई लोग एक बार या ज्यादा लेकिन छोटी और सीमित अवधि के लिए ऐसा अनुभव करते ही हैं। जब इस तरह के भाव अधिक समय तक और बार-बार रहते हैं तब व्यक्ति

अवसाद या डिप्रेशन से प्रभावित हो सकता है। डिप्रेशन सिर्फ मूड में एक अस्थायी परिवर्तन या कमजोरी की निशानी ही नहीं है। यह कई भावनात्मक, शारीरिक और व्यवहार लक्षणों के साथ वास्तविक चिकित्सकीय हासत है।

मुख्य लक्षण...

लगातार उदारी या उदासी, जो सतत से अधिक समय के लिए कमजोर में मन व लगना। शिथिली व शिथिली के बारे में निराशात्मक विचार अन्ना। अकेलपन अलग लगान व बहुत कम बात करना। ध्यान लगा कर काम नहीं कर पाना, कमजोर क्षमता महसूस करना, धक्काट महसूस करना।

परिवार क्या करे

उपगत व्योक्ति से अधिक बातचीत करें, उसे ध्यान से सुनें। सेट-सपने या फिज्म जैसे स्ट्रेसेज की व्यवस्था करें। खेल, धार्मिक गतिविधियों या किसी उन्ने उचित के काम में लगान। भवनात्मक समर्थन, धैर्य, समझ, सुने और प्रोत्साहन से उत्साह अस्त व्योक्ति वा बच्चे की संपन्न की जा सकती है।

अपने सनाह की योजना के लिए एक हादारी का उपरोक्त करें। डिप्रेशन क्या करना है, किस काम को करने में आप अधिक लगाने हैं। कदम में अल्पक मूड बदलने के लिए क्या कर सकते हैं। अधिक की रिस्ट बनाने। उपहारण के लिए मजबूती की पैकरी, उजर का काम, किसी दोस्त से मिलना आदि। इन तरह अस्थी विचारार्थी अन्ना। नले से दूर रहे।

(जैसा कि डॉ. अनिल तांबी ने विकास जैन को बताया)

भारत में आत्महत्याएं



पृष्ठभूमि से आते हैं और वो कैम्पस में बड़े शहरों के छात्रों के रहना-सूचना, भावा-संस्कृति से हीनता महसूस करते हैं। इसके चलते वे खुद को उस मातृत्त में खाल नहीं पाते हैं। तीसरी वजह थी, अत्यधिक अपेक्षाएं। कई दफा छात्र अभिभावकों और रिश्तेदारों की अपेक्षाओं को पूरा नहीं कर पाते हैं और वे अंदर ही अंदर घुटने लगाते हैं। इस स्थिति को वे अपने लोगों या दोस्तों से साझा भी नहीं करते और वे भीरे-थीरे अवसाद में चले जाते हैं।

हमारी अनुसंधानों में यह बात होती है, इनमें सोशल, साहटिफिक और इनोवेशन सब शामिल हैं। एकेडमिक तो सिर्फ 30 फीसद ही है, ऐसे में ज्यादा तनाव का संकलन ही नहीं उठता। अमीरों में तो हमारी आईआईटी की तारीफ होती है, लेकिन हम उन्हें नकारने में लगे हैं। अभी भी आईआईटी देना का बेहतराना संस्थान है और वहां सर्वोत्तम छात्र भर्त हो रहे हैं।

(लेखक छात्र आत्महत्या रोकने के लिए बने टास्क फोर्स के अध्यक्ष थे)

HRD ministry orders NAAC-UGC split

Takes Accreditation Body Under Its Wing, Will 'Sanitize' It After Allegations Of Favour

Hemali Chhappia | TNN

Mumbai: In a watershed decision, the human resource development ministry has asked the NAAC, the country's accreditation body for educational institutions, to snap ties with the University Grants Commission.

The ministry will take the National Assessment and Accreditation Council (NAAC) under its wings. Currently, the NAAC functions under the UGC, but the HRD ministry has in a letter bluntly asked the accreditation body and the UGC to keep each other at "an arm's length".

The divorce will require the NAAC to draw up new by-laws, besides amending its memorandum of association (MOA). Ministry sources said

No council recognition to 133 varsities

Ahead of the of the admission season, UGC prepared a list of universities accreditation status and the data threw up startling facts. As many as 133 universities in India are eligible for accreditation but have not yet applied to undergo the process and 77 have let their NAAC accreditation expire in 2014. Of these 29 have applied for re-accreditation. Still, there are 209 universities across the country that are not eligible for accreditation. Two premier universities in Tamil Nadu - Anna University and the University of Madras - too don't have the mandatory NAAC accreditation. This probably explains why many students passing out colleges the country face problems in getting jobs or admission to higher studies. Academics said the poor quality of higher education in the country is forcing many students to look overseas for education, despite the high cost. TNN

apart from routine administrative changes, the NAAC — whose inspections have been the subject of intense scrutiny and debate, with widespread allegations of favours taken and given — has to be revamped and "sanitized".

"After the UGC made accreditation mandatory, the idea of making the NAAC an independent body has been stressed upon in several meetings," an HRD ministry official said.

Across the world, such a

separation is the norm. "The regulator [UGC] and the assessor [NAAC] cannot be the same body; they must be independent," said Goverdhan Mehta, NAAC executive council chairman. "How can assessment be carried out by a body of your own creation?"

Many in the ministry blame the UGC for the limited growth of the NAAC. Officials feel the National Board of Accreditation (NBA), which grades technical courses, underwent a transformation "financially and functionally" after it was separated from the All India Council for Technical Education (AICTE). The process of making the NBA autonomous and independent of the AICTE was driven by the goal of making the NBA a member of the Washington

Accord, which is seen as an international platform for governing quality in undergraduate engineering programmes.

"Thus, keeping in view the existing requirements of a globally accepted quality regime for enhancing student mobility, it is requested to work out a copy of the draft MOA and rules to make the NAAC autonomous in relation to the UGC," the ministry's letter said. Most members of the NAAC executive committee refused to comment and said the matter was "confidential".

Once independent, the head of the NAAC, the chairperson of the executive council, would be appointed by the ministry.

For the full report, log on to www.timesofindia.com

UGC finds 77 universities have let NAAC certificate lapse

M Ramya, TNN | Feb 9, 2014, 03:49 AM IST

CHENNAI: Two premier universities in Tamil Nadu - [Anna University](#) and the [University of Madras](#) - don't have the mandatory NAAC accreditation. That probably explains why many of the two lakh-odd students passing out of engineering, arts and science colleges in Tamil Nadu face problems in getting jobs or admission to higher studies.

That the two big institutions don't have the stamp of quality that an accreditation gives came to light when the University Grants Commission prepared a list of universities and their accreditation status ahead of the admission season. UGC found that 77 universities across the country, including eight in TN, have let their NAAC accreditation expire in 2014. Of this, 29 have applied for re-accreditation. In Tamil Nadu, Anna University and Madras University are among those that have let their accreditation expire.

M Anandkrishnan, chairman of IIT-Kanpur's board of governors and former Anna University vice-chancellor, said, "Some institutions haven't realized that in the last four or five years, employees, foreign universities and foreign embassies have been inquiring whether the institution the candidate comes from is accredited. Universities are ignorant as to why accreditation is essential," he added. Nasscom regional director K Purushothaman said NAAC accreditation is a "certification of credibility" that companies recognize while recruiting candidates.

The 150-year-old University of Madras, commonly referred to as the parent university in the state, has been functioning without accreditation for nearly two years. The National Assessment and Accreditation Council awarded an 'A' grade to the university with a cumulative grade point average of 86% the last time. The university's accreditation expired on March 2012.

University vice-chancellor R Thandavan said that the previous administration had failed to apply for the re-accreditation on time. "As soon as I took charge I applied for re-accreditation. We are allowed to apply for the process within a year after the validity expires." He said that a team from NAAC is expected to visit the university from March 3 to 7. "We don't expect any problem in getting the accreditation after the team's visit," Thandavan said.

Anna University, which has more than 550 engineering colleges affiliated to it, has been functioning without an accreditation since February 2007. University officials said administration changes, including the splitting of the university into four Anna Universities of Technology and the formation of Anna University-Chennai as a unitary university in 2007, and the consequent merger of the five universities in 2012 led to delays in applying for re-accreditation.

S Ganesan, registrar in charge of Anna University, said, "We applied for re-accreditation recently. We are waiting for the NAAC team's visit. But, it has been cancelled thrice for administrative reasons. The meeting has been set up in June or July now." The government has made accreditation mandatory for all higher educational institutions to ensure quality. Still 133 universities in India that are eligible for accreditation have not yet applied to undergo the process.

Anandkrishnan said that many of the institutions postpone the accreditation process because they are unable to conduct a self review. "The accreditation criteria have completely changed now, and is more based on teaching, learning and governance parameters. Institutions are afraid of not making a good grade, so they try to postpone the process at least during a particular person's governance."

Promise of infra sops to Seemandhra

NEW DELHI: The Telangana Bill cleared by the Union Cabinet has several infrastructure sops for the Seemandhra region, which did not find a mention earlier, a move seen as a bid to placate people opposed to the bifurcation of Andhra Pradesh.

The residuary state will have a Petroleum University, National Institute of Disaster Management, steel plant in YSR district and a metro rail network, says the Andhra Pradesh State Reorganisation Bill.

Efforts will also be made to upgrade Visakhapatnam, Vijayawada and Tirupati airports to international standards.

These are part of the 32 amendments, which the Cen-

tre will move when it is tabled in Parliament.

The residuary state will also get an IIM, IIT, IIIT, NIT, IISER, tribal university, central university, an AIIMS-type superspeciality hospital-cum-teaching institution and an agricultural university by 2023.

Telangana will have a Tribal University and a Horticulture University, according to the proposed 13th schedule of the Bill.

In a politically interesting move, the government also proposed that Steel Authority of India should examine the feasibility of establishing an integrated steel plant in YSR district, formerly known as Kadapa. The district was named after former chief minister Y S

Rajashkehar Reddy. The YSR Congress, led by his son Jagannathan Reddy, has staunchly opposed the bifurcation of the state.

SAIL will also examine within six months from the formation of the new state the feasibility of establishing a similar steel plant in Khammam in the Telangana region.

According to the amendments that will benefit Seemandhra, the Centre will also examine the feasibility of a metro rail facility in Visakhapatnam and the Vijayawada-Guntur Tenali Metropolitan Urban Development Authority within one year from the date of bifurcation.

The Centre will also take measures to establish rapid rail

and road connectivity from the new capital of the successor state of Andhra Pradesh to Hyderabad and other important cities of Telangana.

The amendments have put a timeline for considering and taking a decision on several infrastructure projects.

A decision on the already announced plans on having a railway zone for Andhra and a rail coach factory for Telangana will have to be taken within six months of the bifurcation.

A one-year deadline has also been set to examine the feasibility of the Vizag-Chennai Industrial Corridor along the lines of the existing Delhi-Mumbai Industrial corridor.

DH News Service

Indian-origin academicians lead top global institutes

Vanita Srivastava

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NEW DELHI: The club of Indian-origin academicians taking up key roles in the best international institutes is getting bigger. And Sanjeev Kulkarni, an Indian-American, recently appointed as dean of the Princeton University Graduate School is its latest member.

Last month, Indian-American professor Rakesh Khurana joined the prestigious club after being appointed dean of Harvard College.

In 2010, Nitin Nohria made the country proud after he became the first Indian-origin head of the prestigious Harvard business school. In the same year, University of Chicago's Booth School of

Business named Sunil Kumar as its dean.

"This is a natural consequence of the inflow of Indian-origin academicians in the US universities some 20-25 years ago. Their progression in their respective institutes is now reflected in their career growth," Kumar told HT.

Sri Zaheer, dean at the University of Minnesota's Carlson School of Management believes the US provides a meritocratic environment that has helped immigrants from different nationalities to rise to top ranks. "I hope in this process all of us who have a soft spot for our home countries can act as bridges," Zaheer said.

Soumitra Dutta took over as the dean of Cornell University's management



■ Sunil Kumar



■ Sri Zaheer



■ Soumitra Dutta

ON TOP OF THE WORLD

- Sanjeev Kulkarni next dean of Princeton University Graduate School
- Rakesh Khurana will take over as the next dean of Harvard College in July
- Soumitra Dutta is dean of management school at Cornell
- Nitin Nohria was appointed dean of Harvard Business School in 2010

school in 2012. Although opening a campus in India is not part of his future plan, he

wants to build stronger links with researchers.

"This trend has essentially

THIS TREND IS BECAUSE OF INDIANS BEING SKILLED AND HARD WORKING

born out of Indians being skilled, hard working and global and also because America is a country that judges you by your skills," Dutta said.

"Some of the best Indian students come here for higher education, particularly for research. India needs to have more research varsities," says Narayanamurti Venkatesh, who became the dean of School of Engineering and Applied Sciences in 1998.

He became dean of Physical Sciences at Harvard university in 2003.

Math is like sport. Training is tough but the win's wonderful

Who would have thought that the longest-running scripted TV show in the world, 'The Simpsons', contains hidden math messages inserted by the writers themselves? British science writer Simon Singh discovered this, and has documented the story in his recent rib-tickling book 'The Simpsons and Their Mathematical Secrets'. Singh, a physicist and math lover, has worked with the BBC, made television shows and

FOR THE RECORD

documentaries, taught in schools — including a stint at the Doon School, Dehradun — and written popular books on code breaking, famous math puzzles, debunking homeopathy and the Big Bang. On a visit to Delhi recently, he met up with Subodh Varma to talk about a range of subjects, including math & alternative medicine

The Simpsons' has got hidden math? It sounds weird! How did you discover this?

I have always loved watching TV. And *Simpsons* is a favorite. In one of the episodes, Homer is hiding behind a bookcase because his sisters-in-law have come for a surprise visit. There, he finds a mysterious portal. He goes through it to find himself in a 3-D world where well-known math equations appear to fly by him. I did some digging and found that five of the key script writers have math or physics degrees from Harvard. Two of them have PhDs! So I went and met with them and talked to them. That's how the book came by. A very large number of people love *The Simpsons* show. I want them to start loving math too.

Why does math cause so much fear among students?

In the school I went to, a teacher taught us math for eight successive years and my love originated there. So, whether math is loved or hated depends largely on the education system, and the teachers. Unfortunately, something has gone wrong somewhere. In England, for instance, there are no takers for physics in schools. The authorities saw this trend and said, "We have to make physics easy!" So they took out all the math from physics! The students found it comfortable but when they hit real physics at the university, they were flummoxed. In the early years in school, interest in math and science is rising because of some policies but as you get to higher classes the interest declines.

You are saying that teaching methods are flawed?

It is one big factor. The standard method is this: the teacher teaches in the class and then you go home and try to solve the problems on your own. If you get stuck, there is no teacher to help. Shouldn't it be the other way around — students should be solving problems with a teacher guiding and helping them. Now, with the rise of educational videos like the excellent Khan Academy ones, students can get help while solving math problems. In fact new technologies have opened new opportunities. A computer can know that you are getting stuck at the steps that involve, say, division or fractions. So, it will tell you — "Ok, let's go back to the division chapter and run through

it again". Isn't that wonderful?

How do you generate confidence among students?

Once, I was giving a lecture at a school. I said the usual thing — math is great fun, you will enjoy it etc etc. After me, Marcus du Sautoy (professor at Oxford and famous math/science popularizer) got up and said the reverse — math will make you miserable, stressful, frustrated, but once you go through all this, you will feel great. Nowadays, I have shifted to using the du Sautoy approach. Doing math is like training for a sport. The training part is tough and monotonous, but when you win a game or a race, it's wonderful.

You wrote a controversial book debunking traditional medicine and homeopathy. Is it really bogus?

Look, if you say that sucking ginger helps relieve throat irritation, I have no objection. But in most cases it goes far beyond this. My family members get all kinds of concoctions from India. How do I know what chemicals are there in those desi concoctions? I don't know how they will interact with the medicines already in the system. At worst, it is dangerous; at best, it will help for minor things. I can understand that here in India, where many people don't have access to modern medicine, or are too poor to pay for it, they will try out traditional remedies. But why in England? I think there it is a middle-class fad that believes in a sort of cosy 'lap of nature' feeling, nothing more. Mind you, pharma companies also play dirty, pushing all kinds of irrational drugs. So, one has to be careful.



IIT-D test drive a success, biogas-fuelled car a reality

Manash Pratim Gohain | TNN

New Delhi: The latest models launched at the 12th Auto Expo 2014 are by now common knowledge among vehicle enthusiasts but few are aware that IIT Delhi has successfully tested India's first biogas-fuelled passenger car.

Compressed biogas was tested on a regular CNG car for over 15,000km. The best news was for the environment — the emissions were lower than CNG. Also, existing CNG vehicles need not undergo any modification to be compatible to CBG.

The water-scrubbing-based biogas upgrade and compression/bottling system developed at the campus is now patented with IIT-D, promising a green and low cost fuel for automobiles and cooking. The project is being developed by Biogas Development and Training Centre, Centre for Rural Development and Technology, IIT Delhi, and is being sponsored by ministry of new and renewable energy.

"IIT-D has developed a



File photo

Existing CNG vehicles need not undergo modification to be CBG compatible

small scale biogas upgrading system using water scrubbing technology (20 m³/h system). The system consists of a water scrubbing column and methane-enriched biogas compression system. Commercial viability of the biogas purification and bottling plant can be attained above 500m³/d capacity. Its payback period ranges from one to four years depending upon capacity of plant, cost of raw material for gas production and selling price of CBG," Prof. Virendra Kumar Vijay, heading the project, said.

There is no significant change in mileage of the vehi-

cle fuelled with CBG (24.11km/kg) as compared to CNG (24.38km/kg).

Vijay added, "We tested the regular CNG car on CBG for more than 15,000km. The fuel economy and mass emission of the vehicle fuelled with CBG with 93% methane and compressed natural gas were evaluated. Emissions such as CO, HC and NO_x are found to be marginally higher with CNG than CBG."

Worldwide, biomass accounts for over two-thirds of all renewable energy supplies. Among biomass sources, biogas is an interesting option with a large potential, offering many exciting possibilities to supplement existing fuels, thereby reducing our dependence on fossil fuels.

"The total potential of biogas from all sources has been estimated to be 48,382 million cubic metres a year. Assuming 50% of total upgraded biogas is used in transport sector and 50% in cooking sector, bottled biogas can fulfill 43.4% of the total transport sector demand and 41.7% of cooking sector needs," Vijay said.

IITs are great, but they don't create Nadellas

Is there some dismay that the new CEO of Microsoft is not an IITian? IITs mass produce excellence, but 'lesser' institutions seem to chip in with brilliance. Mr Satya Nadella is one such product. What is remarkable is that in this era of relentless pursuit of individual careers and hopping on to disparate job contents, Mr Nadella has stuck with one company to persevere for 22 long years, to be a titan. Pedigreed IITians have only managed to, become big, maybe in larger numbers, on the wings of a generic brand value.

This brand has been finding greater acceptance on Wall Street or in IT start-ups and less in premiere engineering or scientific research institutions. In these six-plus decades of IITs, in an era of ever-exploding scientific ken, the branded alumni ought to contribute to cutting edge technologies and seminal scientific papers. We would then be not seeking vindications through the success of men of Indian origin elsewhere.

R Narayanan
Ghaziabad



GREAT BRAINS STUDY ALIKE

TOP SHOTS Indians heading global firms have strikingly similar Bio-data, especially in terms of academics

Press Trust of India

The educational background of global business leaders that India has produced has a striking similarity — most of them obtained their Bachelor's in India and got their Master's in Business Administration from premier institutes in the country or the US.

The latest to join the list of Indian origin persons holding top posts at global corporations Satya Nadella's credentials resonate with this trend.

Nadella holds a Bachelor's degree in electronics and communication engineering from Manipal University, a Master's degree in Computer Science from the University of Wisconsin, Milwaukee and an MBA from the University of Chicago.

Others in this league include, PepsiCo Chairman Indra Nooyi, Reckitt Benckiser Chief Executive Rakesh Kapoor, Ajay Banga President and Chief Executive of MasterCard, Anshu Jain of Deutsche Bank.

Nooyi got Bachelor of Science degree from the Madras Christian College, later an MBA from the Indian Institute of Management (Calcutta) and a Master's degree in Public and Private Management from Yale University.

Jain studied economics at Shri Ram College of Commerce in Delhi and holds an MBA in Finance from the University of Massachusetts, Amherst.

Reckitt Benckiser's Kapoor has a Chemical Engineering degree from the Birla



■ (From left) Microsoft founder and technical advisor Bill Gates, new CEO Satya Nadella and former CEO Steve Ballmer at a Microsoft employee rally in Redmond, Washington, on Tuesday

NYT PHOTO

Institute of Technology and Science (BITS), Pilani, and an MBA from XLRI- Xavier School of Management, Jamshedpur, India.

While, Ajay Banga of MasterCard has a degree in Economics from St Stephen's College in Delhi and MBA from the Indian Institute of Management, Ahmedabad.

Experts are of the opinion that Indians' focus on good education and ability to work in difficult situations is aiding to this rising trend and more and more Indians could rise to top positions at global companies in the near future. The technical skills and the behavioural patterns of Indians executives make them very much adaptable to any kind of situation they come across.

According to experts this trend in higher education in Asia's third largest economy is wide spread.

FRIENDS FROM INDIA

Experts believe that Indians' focus on good education and ability to work in difficult situations is aiding to this rising trend



INDRA NOOYI

PepsiCo Chairman

Bachelors: Science from the Madras Christian College

MBA: Indian Institute of Management (Calcutta, now Kolkata)

Master's: Degree in Public and Private Management from Yale University



AJAY BANGA

CEO, MasterCard

Bachelors: Economics from St Stephen's College, DU

MBA: IIM, Ahmedabad



ANSHU JAIN

Co-CEO, Deutsche Bank

Bachelors: Economics from SRCC, DU

MBA: From University of Massachusetts, Amherst

Narendra Modi's poll promise: an IIT and IIM in every State β c

Calls knowledge most potent tool to fight poverty

OUR BUREAU

Chennai, February 9

The BJP will set up prestigious institutions such as IITs, IIMs and All India Institute of Medical Sciences (AIIMS) in every State when it comes to power, said Gujarat Chief Minister Narendra Modi, the party's prime ministerial candidate.

Students' access to such prestigious institutions and to education is limited and "this is our biggest challenge," he said at the ninth convocation of SRM University at Kattankulathur, 35 km south of Chennai.

According to him, it is unfortunate that even after 65 years of Independence, there has not been much focus on education, which is important not only for an individual's progress but for economic devel-

opment and nation-building.

"We need to renew our commitment to education and commit ourselves to educating every child.

"We should not be left behind any other country in terms of coverage or quality of education," he said in a 30-minute speech which was a mix of English and Hindi.

Modi said this is an era of knowledge, which is the most potent tool to fight poverty, and there is no reason why India should lag behind in education.

The nation has the brightest minds and a number of philanthropists, he pointed out.

Too few SRMs

"Why are there only a few SRMs? Why can't such institutions be established in every nook and corner of the country?" he said, and added that the private sector is eager to enter the field but requires an enabling environment.

It should be given a free

hand, he added. However, institution-building has to begin with the government, Modi said.

"It is our commitment to establish an IIT, an IIM and AIIMS in every State," he added.

Emphasising entrepreneurship development, Modi commented on Hyderabad-born Sathya Nadella's recent appointment as Microsoft's CEO.

Do a Nadella

"You must dream to reach the heights of Nadella. Create companies like Microsoft, Apple and Google in India, own them and manage them.

"Do whatever you can to make India innovative and competitive," he said.

According to him, India's advantage is the demographic dividend, with nearly 65 per cent of the population below the age of 35.

"Give our youth the strength and opportunity, they will do in 60 months what we could not do in 60 years," he said.

Modi urged students to strengthen their skills and think big.

"When the Japanese are thinking of improving their bullet trains, we are still thinking of adding bogies to our trains," he said.

Honorary doctorate

SRM University conferred an honorary doctorate degree on Avinash Chader, Scientific Adviser to the Defence Minister and Director-General, Defence Research and Development Organisation, for his contribution to science.

This year, 10,290 students graduated in engineering, medical and health sciences, and science and humanities courses.



Think big Gujarat CM Narendra Modi at SRM University's convocation at Kattankulathur, near Chennai, on Sunday. BIJOY GHOSH

PLEASURE PLAY

Soon, a contraceptive for men

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Vanita Srivastava

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NEW DELHI: For those who consider using condoms as one of the most inconvenient ways of deriving intimate pleasures, there is some good news. A male contraceptive to be taken as an injection — one shot effective for 10 years — is expected to hit the market soon. Scientists at IIT Kharagpur are in the final stages of developing the drug and planning its restricted monitored launch in few districts of Uttar Pradesh and Bihar.

If successful, the invention would bring about a radical change in the contraceptives' sector. "The contraceptive called Reversible Inhibition of Sperm Under Guidance (RISUG) would

generate positive electrical energy when injected in the body. The positive charge of the drug would cancel the negative charge of the sperms making them incapable for fertilisation," explained Dr Sujoy Kumar



ILLUSTRATION: ABHIMANYU

Guha, professor at the School of Medicine, Science and Technology who is also in-charge of the project.

The non-hormonal, polymer-based contraceptive is injected into the vas

deferens, the muscular tube that begins at the lower end of epididymis and passes upward along the side of the testis. "The contraceptive's effect will remain for 10 years, may be even more," Guha said.

The team working on RISUG has also come out with two of its variants — RISUGadv and RISUG-PH. RISUGadv has been granted patent in Europe and is being clinically studied on human volunteers in some parts of Europe for its effectiveness as a combined contraceptive and prostate cancer preventive.

"RISUG-PH, is in the animal trial stage and indirect evidence shows it can cure baldness, particularly crown baldness," Guha said.

RISUG is expected to cost ₹200-300, depending on market forces, whenever it is launched.

First self-publishing MA offers DIY education in UK



■ The concept of do-it-yourself (DIY) publishing is condemned by authors like Jeffrey Archer

FILE PHOTO

Alison Flood

The University of Central Lancashire in northern England has announced the launch of what it describes as the world's first degree in self-publishing.

The MA will begin in September, and course leader Debbie Williams believes it will help "legitimise" self-publishing. "Things have definitely changed. In the last two years, self-publishing has stopped being a dirty word, and is a legitimate option for authors," she said. "Even the biggest authors are looking at it now."

Despite the negative light in which self-publishing is viewed by some — Jeffrey Archer recently said "it doesn't work, don't

do it. The only person who reads it is the person who gets it published", while Sue Grafton has characterised DIY-ers as "too lazy to do the hard work" — the university pointed to research from the books data company Bowker, which found that around 390,000 titles were self-published in the US in 2012, up 59% on 2011 and a massive 422% on 2007. Digital self-publishing also continues to boom, accounting for 40% of

self-published titles in the US in 2012, up from just 11% in 2007, according to Bowker.

"Self-publishing is becoming a global phenomenon," said Williams.

"Everyone has a book in them — and many of us have a manuscript sitting in the drawer, unsure what to do with it. Think of all the literary treasures that have never had the chance to see the light of day because their authors were put off by the traditional publishing model. Our new MA will help guide these individuals through the process to help them realise the dream of seeing their book in print." The idea of launching a self-publishing MA was sparked by demand, she said, and would-be students are already applying.

Things have changed. In the last two years, self-publishing has stopped being a dirty word.

DEBBIE WILLIAMS, Course leader

GNS