

## Newspaper Clips

June 3, 2014

Economic Times ND 3/06/2014 P-3

# नए IIT के लिए फंड मांगने जेटली के पास पहुंचीं ईरानी

[ उर्मि ए गोस्वामी | नई दिल्ली ]

ह्यूमन रिसोर्स डिवेलपमेंट (एचआरडी) मिनिस्टर स्मृति ईरानी तेजी से कम से कम आठ नए आईआईटी बनाने में लगने वाले फंड के लिए पुरजोर कोशिश कर रही हैं। ब्यूरोक्रेट्स द्वारा यह बताए जाने के बाद कि नए आईआईटी बनाने में फंड्स, लैंड और फैकल्टी सबसे बड़ी चुनौती होंगी, उन्होंने फंड्स के लिए फाइनेंस मिनिस्टर अरुण जेटली से मुलाकात की है।

ईरानी, बीजेपी के चुनावी वायदों को तेजी से लागू करना चाहती हैं और उन्हें दूसरे प्रायरिटी प्रोजेक्ट्स के लिए भी फंड्स की जरूरत है। सूत्रों ने बताया कि दूसरे अहम प्रोजेक्ट्स में हिमालयन टेक्नोलॉजी के लिए सेंट्रल यूनिवर्सिटी बनाना और नेशनल ई-लाइब्रेरी शामिल हैं। सूत्रों का कहना है कि एचआरडी मिनिस्टर इन मुद्दों को फाइनेंस मिनिस्टर अरुण जेटली के सामने रख चुकी हैं। केरल, कर्नाटक, झारखंड, उत्तराखंड, गोवा, सिक्किम और छत्तीसगढ़ ऐसे राज्य हैं, जहां आईआईटी नहीं हैं। एचआरडी मिनिस्टर के इस प्रपोजल से इन राज्यों को सीधा फायदा मिलेगा। आंध्र प्रदेश बंटवारे पैकेज के

तहत सीमांध्र में पहले ही एक आईआईटी बनाने की बात कही गई है। इकनॉमिक टाइम्स ने इस खबर को लेकर स्मृति ईरानी को ई-मेल भेजी, लेकिन उन्होंने जवाब नहीं दिया।

2009 में देश में आईआईटी की संख्या दोगुनी होकर 16 हो गई, लेकिन नए आईआईटी को फंड की किल्लत झेलनी पड़ रही है। 12वीं पंचवर्षीय योजना में आईआईटी के लिए करीब 12,500 करोड़ रुपये अलॉट किए गए थे। 2009 में आठ आईआईटी बनाने के लिए 6,000 करोड़ रुपये से ज्यादा का फंड रखा गया था। हालांकि, बढ़ती कॉस्ट के कारण अब यह बजट दोगुने से ज्यादा बढ़कर 14,000 करोड़ रुपये हो गया है। कई आईआईटी अभी अपने परमानेंट कैम्पस से ऑपरेट नहीं कर पा रहे हैं। ऑफिशियल्स का कहना है कि इकनॉमी की हालत को देखते हुए आठ नए आईआईटी बनाने जैसी महंगी एक्सरसाइज व्यवहारिक नहीं है। उन्होंने बताया कि नए आईआईटी कई तरह की समस्याएं झेल रहे हैं। उन्होंने बताया कि कुछ आईआईटी अस्थायी कैम्पस से ऑपरेट कर रहे हैं, क्योंकि उन्हें बनाने के लिए जमीन नहीं है।

Rajasthan Patrika ND 3/06/2014 P-14

# नए आईआईटी खोलने में जुटीं स्मृति ईरानी

नई दिल्ली . नरेन्द्र मोदी सरकार देश में उच्च एवं तकनीकी शिक्षा को मजबूत बनाने के लिए कम से कम आठ और नए आईआईटी खोलना चाहती है। इस सिलसिले में मानव संसाधन विकास मंत्री स्मृति ईरानी केन्द्रीय वित्त मंत्री अरुण जेटली से भी मिल चुकी हैं।

सूत्रों का कहना है कि ईरानी पार्टी के चुनावी वादों को पूरा करने के लिए शिक्षा का और विस्तार चाहती हैं। इसके लिए वह देश में और आईआईटी खोलने के पक्ष में हैं। इस क्रम में वह इसके लिए फंड जुटाने के प्रयास में हैं। ईरानी केन्द्रीय हिमालय प्रौद्योगिकी विश्वविद्यालय तथा ई-लाइब्रेरी भी खोलना चाहती हैं ताकि देश के पर्यावरण को दुरुस्त किया जा सके और छात्र घर पर ही पुस्तकालय का लाभ उठा सकें।

सूत्रों के अनुसार ईरानी ने इन सभी मुद्दों पर जेटली से बातचीत की।

फिलहाल केरल, कर्नाटक, झारखंड, उत्तराखंड, गोवा, सिक्किम तथा छत्तीसगढ़ में कोई आईआईटी नहीं है। सीमांध्र ने भी आश्वासन दिया है



कि वह अपने यहां एक आईआईटी खोलेगा। 2009 में संयुक्त प्रगतिशील गठबंधन सरकार ने देश में आईआईटी की संख्या बढ़ाकर 16 कर दी थी। 12वीं पंचवर्षीय योजना में आईआईआई के लिए 13,500 करोड़ रुपए आवंटित किए गए थे। फिलहाल आईआईटी के सामने आर्थिक संकट है और गत दिनों उन्होंने फीस भी बढ़ा दी थी।

Shah Times ND 03.06.2014 P-3

# स्मृति नए आईआईटी खोलने में जुटीं

**उच्च शिक्षा का विस्तार चाहती है केन्द्र सरकार**



सिक्किम तथा छत्तीसगढ़ में कोई

आईआईटी नहीं है। सीमाधर ने भी आश्वासन दिया है कि वह अपने यहां एक आईआईटी खोलेगा।

2009 में संयुक्त प्रगतिशील गठबंधन सरकार ने देश में आईआईटी की संख्या बढ़ाकर 16 कर दी थी। 12वीं पंचवर्षीय योजना में आईआईआई के लिए 13500 करोड़ रुपए आवंटित किए गए थे। फिलहाल आईआईटी के सामने आर्थिक संकट है और गत दिनों उन्होंने अपनी फीस भी बढ़ा दी थी।

नई दिल्ली। नरेन्द्र मोदी सरकार देश में उच्च एवं तकनीकी शिक्षा को मजबूत बनाने के लिए कम से कम आठ और नए आईआईटी खोलना चाहती है। इस सिलसिले में मानव संसाधन विकास मंत्री स्मृति ईरानी केन्द्रीय वित्त मंत्री अरुण जेटली से भी मिल चुकी हैं।

सूत्रों का कहना है कि ईरानी अपनी पार्टी के चुनावी वायदों को पूरा करने के लिए उनका शिक्षा का और विस्तार चाहती है। इसके लिए वह देश में और आईआईटी खोलने के पक्ष में हैं। इस क्रम में वह इसके लिए फंड जुटाने के प्रयास में है। ईरानी केन्द्रीय हिमालय प्रौद्योगिकी विश्व-विद्यालय तथा ई. लायब्रेरी भी खोलना चाहती है, ताकि देश के पर्यावरण को दुरुस्त किया जा सके और छात्र अपने घर पर बैठकर ही पुस्तकालय का लाभ उठा सकें। सूत्रों के अनुसार ईरानी ने इन सभी मुद्दों पर जेटली से बातचीत की है। फिलहाल केरल, कर्नाटक, झारखंड, उत्तराखंड, गोवा,

Hindustan ND 3/06/2014 P-5

## आईआईटी-जेईई में भी मिले छह मौके

नई दिल्ली। सुपर-30 के संचालक आनंद कुमार ने मानव संसाधन विकास मंत्री स्मृति ईरानी को पत्र लिखकर सिविल सेवा परीक्षा की भांति आईआईटी-जेईई में भी छात्रों के लिए मौके बढ़ाने की मांग की है। सिविल सेवा परीक्षा में छात्रों को अब छह मौके मिलेंगे जबकि पहले चार मौके मिलते थे। कुमार ने पत्र में कहा है कि एक ओर सिविल सेवा में छह मौके दिए जा रहे हैं जबकि जेईई में सिर्फ दो मौके मिलते हैं। इससे ग्रामीण पृष्ठभूमि वाले छात्रों को तैयारी के पर्याप्त मौके नहीं मिल पाते हैं। नतीजा यह होता है कि शहरों के बच्चे तो बाजी मार ले जाते हैं लेकिन गांव के बच्चे पीछे रहे जाते हैं। सबको समान मौके मुहैया कराने को मंत्रालय जेईई में भी छह बार बैठने की अनुमति प्रदान करे।

Economic Times ND 3/06/2014 P-6

# Restructuring UGC Among Irani's Top 100-day Priorities

**URMI A GOSWAMI**  
NEW DELHI

HRD minister Smriti Irani is turning her attention to transforming the University Grants Commission into a bonafide higher education regulator that is in tune with the changing landscape in the sector. Restructuring and refocusing UGC from a grant-disbursing organisation to one that maintains standards and regulates the sector is among Irani's top 100-day priorities.

Officials said the growth in the sector with private players, and possible entry of foreign education institutions has meant that the UGC would need to expand its regulatory functions. UGC was set up by an Act of Parliament in 1956, and is the statutory body for the coordination, determination and maintenance of standards of university education in the country. However, it had already been in existence since 1952 at which time the function of allocating public funds to central universities and other universities was entrusted to the UGC. Over the years, despite the changes in the higher education sector, the Commission's emphasis has continued to be on its grant disbursement functions.

Irani's focus is in keeping with the BJP's poll promise of restructuring

the UGC to transform it into a Higher Education Commission. The transformation will be effected by amending the UGC Act.

Ministry officials are already working on the amendments, before it can be vetted by the law ministry and sent for inter-ministerial consultations, after which it will be taken up for approval by the Cabinet and then introduced in Parliament.

"Over the past decade, the UGC has responded to changes in the sector be it private universities, deemed universities, collaboration with foreign institutions through executive orders. This approach has more often than not been reactive rather than proactive as a result the regulatory oversight that exists over the different actors in the higher education sector has not been adequate," said a ministry official.

The amendments, which are still in the works, will broaden the UGC's functions, which are currently mostly focused on disbursing grants, ascertaining the quantum of the grant and determining the universities and colleges that qualify for these grants. The UGC is also charged with regulation of fees and prohibition of donations in certain cases, inspection of universities, and advice governments on matters related to setting up and functioning of universities and maintaining standards.

Even its grants disbursement functions have been rather limited, as not all universities and colleges particularly those set up by the states, are eligible for UGC grants. "The government's scheme to augment the universities and colleges in the state sector, Rashtriya Uchchar Shiksha Abhiyan, has dented the importance of the UGC's grant disbursement function," an official said.

Sources indicated the proposed amendments would take into consideration the rapid growth in the private sector, the collaborative efforts with foreign institutions and the eventual entry of foreign education providers.

Former HRD minister Kapil Sibal had pushed for an overarching higher education regulator National Commission for Higher Education and Research, which would subsume

all existing regulatory bodies such as University Grants Commission, All India Council for Technical Education. There is no clarity whether the proposed Higher Education Commission would follow this model.

## Irani's Impromptu Tour of Ministry Surprises Staff

**OUR BUREAU**  
NEW DELHI

Human resource development minister Smriti Irani surprised her team of officials and staff by walking up to each employee in her ministry and chatting with them, taking a leaf from Prime Minister Narendra Modi's book.

Irani's impromptu tour of the ministry which is spread over five floors in the C-Wing of Shashtri Bhavan was deeply appreciated especially by the staff of the various officers and sections, who on a normal course never get a chance to interact with a minister.

Reminiscent of her campaign days in Amethi, the minister went from room to room interacting with staff members, persons and others asking them about working conditions and difficulties they face.

"Not since Madhavrao Scindia has any minister bothered about the staff and how they feel about the work environment. It was really nice to see a minister in the section offices asking about what we need and feel," said a long-time secretarial staff of the ministry.

An upside of Irani's surprise move is that a clean up job soon ensued in the corridors of the HRD ministry, worried perhaps about a repeat performance by the minister. Irani, who has been working long hours since she took over as minister, has been mostly closeted in her office, taking presentations and learning about her charge. And given her past as a TV star, the general feeling was that she would be a distant minister. But her Monday morning tour changed that. Staff members were heard discussing the minister's looks, her choice of sari and her down-to-earth interest in the people who comprise the ministry.



Asian Age ND 3/06/2014 P-3

# Irani for UGC restructuring

**NITIN MAHAJAN**  
NEW DELHI, JUNE 2

Union HRD minister Smriti Irani is understood to be pushing for major reform in higher education sector by contemplating the restructuring of the educational sector regulator University Grants Commission and transforming it into a higher education commission.

Sources said that the UGC will be restructured into a higher education commission to help push through the higher education reform agenda of the BJP government. It is learnt that the move has been proposed to change the UGC's functioning from just being a grant distribution agency to a body which oversees and monitors the higher education system of the country.

The move comes even as the higher education regulatory body has come under scanner following allegations of financial mismanagement and non-availability of an internal audit mechanism within it.

Sources said that the ministry is likely to prepare a Cabinet note and



Smriti Irani

seek the permission at the highest level before the proposal is implemented.

To discuss the issue threadbare a wide-level consultation process between academicians, officials, institutions and other key stakeholders is also likely to be launched soon.

The restructuring of the UGC has been pending for several years even as repeated governments have been unable to take up the issue in earnest. It is widely believed that the UGC has failed dismally in its primary task of giving grants to the colleges and universities in the country. Repeated audit reports of the government have blamed the commission of delays in the grant of aid and financial assistance to educational institutes, sources said.

## ***IIT students make electric racing car***

— By Shiladitya Pandit, June 03, 2014 12:00 am

**Mumbai :** Students at the Indian Institute of Technology, Bombay have made a fully battery-powered racing car that can reach a top speed of 100 kmph. The Reva, India's electric car, has a top speed of 80 kmph.

Named EVO 3.0, it will compete at an inter-university car race to be held at the legendary Silverstone racing circuit in the UK in mid-June.

Launched on Sunday, the EVO 3.0 weighs 250 kg and is powered by a set of lithium ion batteries. Members of the team that made the car said that it clocks 0 to 100 kmph in only 4 seconds. It looks like a condensed form of the F1 racing car.

Siddhesh Sakhalkar, captain of the racing team, said, "We used carbon fibre wherever possible to keep the weight down. The steering wheel and some part of the chassis have been made with carbon fibre. Electronic gears also help keep it light."

These cars will be judged by various parameters, such as speed, aerodynamics, suspension systems, cost etc.

IIT-B student Abhishek Thote who oversees operations at the racing team, said, "We had built two previous versions of this car, and this is the third generation, and has been a massive improvement."

Sakhalkar says European universities, most of which are sending their racing teams, are much better funded and more experienced. "For example, all of the chassis of their cars are made of carbon fibre, which makes their vehicles 50 kilograms lighter than ours and with better aerodynamics. But we at least hope to break into the top 20 this year, up from our 50th position last year."

The IIT car has been funded by the IIT-B along with some corporate sponsors. The cost, though, is a secret. Going by the fact that Reva sells at Rs 3.5 lakh, the Evo 3.0 could cost at least twice as much

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## ***University Grants Commission likely to get more powers in rejig***

[B K Mishra](#), TNN | Jun 3, 2014, 02:37 AM IST

PATNA: The University Grants Commission (UGC) is likely to be restructured and transformed into 'Higher Education Commission' rather than just being an agency to sanction grants and distribute funds.

If the BJP's National Vision Document on Education Policy and the party's 2014 election manifesto are any indication, the area of UGC functioning will be widened considerably with greater responsibilities. The NDA government will also provide greater autonomy with steps to ensure accountability for institutions of higher learning. It will strive hard to raise the standard of education and research so that Indian universities become on par with the top global universities. The credibility of the regulatory bodies shall be restored. The procedures to make appointments to senior positions shall be made transparent with merit and ability the sole criterion.

State BJP Teachers' Cell president and Patna Science College geology teacher Anil Kumar, who is a member of the National Vision Document draft committee, said the course content should be so designed as to prepare the students to understand the current challenges and equip themselves to readily adjust to a fast changing global scenario. Policy interventions would include enhancing the pivotal role of teachers by reworking the work culture of teachers training institutions with a goal to prepare committed and performing teachers.

Optimum utilization of physical and manpower resources would be ensured and a mechanism for close interaction between industry, academia and community would be instituted.

A needs' assessment exercise will be done for identifying the future needs across sectors and the same would be used for developing appropriate courses for higher education to ensure that the country has adequate manpower in every sector, both established and emerging, in the economy. The Apprenticeship Act would be revisited to facilitate youth to 'earn while they learn', he said.

Topmost priority would be given to address the acute shortage of teachers and researchers, quality of education and research, and also the employability factor associated with most of the courses. Education should not only lead to employability, but also job creation and entrepreneurship by introducing a national multi-skill orientation programme. The NDA government intends to review and revise education system and the salary structures associated with the teaching staff. The system shall be made people-friendly and its credibility shall be restored. Investment in education yields the best dividends. Public spending on education would be raised to 6% of the GDP and it would be enhanced further by involving the private sector.

Kumar further pointed out that the new government would set up Massive Open Online Courses (MOOC) and virtual classrooms to make it convenient for working class people and housewives to further their knowledge and qualifications. Correspondence courses will be started in new domains for self-employment, family-run business, entrepreneurship and innovation, and these courses would be offered to women free of cost.

The government will set up a National Commission on Education to report in two years on the state of education and the reforms needed. Based on the report, the government will implement a National Education Policy to make India a knowledge superpower by equipping students with the necessary skill and knowledge and to eliminate the shortage of manpower in science, technology, academics and industry, he added.



पूर्व राष्ट्रपति डॉ.एपीजे अब्दुल कलाम देंगे डिग्रीयां, तीन दिन चलेगी रिहर्सल

# दीक्षांत से पहले प्लेसमेंट दिलाने की कोशिश में आईआईटी

इंदौर

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इंडियन इंस्टिट्यूट ऑफ टेक्नोलॉजी (आईआईटी) इंदौर का दूसरा दीक्षांत समारोह 5 जून को सिमरोल परिसर में होगा। 2010-14 बैच के 110 छात्रों को बीटेक की डिग्री व सात को पीएचडी अवॉर्ड की जाएगी। मुख्य अतिथि पूर्व राष्ट्रपति डॉ.एपीजे अब्दुल कलाम होंगे। आईआईटी प्रबंधन दीक्षांत समारोह को धूमधाम से मनाने की तैयारी के बीच प्लेसमेंट से वंचित छात्रों को नौकरी दिलाने की कोशिश में जुटा है।

पिछले साल पासआउट बैच की तरह आईआईटी की दूसरी बैच को भी अच्छे प्लेसमेंट ऑफर्स मिलने में मुश्किलें हो रही हैं। यही वजह है कि दीक्षांत समारोह से



सप्ताहभर पहले तक भी आईआईटी की प्लेसमेंट रिपोर्ट जारी नहीं हो सकी। जानकारी के अनुसार करीब 70 फीसदी छात्रों को तो पसंदीदा सेक्टर में प्लेसमेंट मिल चुका है, जबकि कुछ छात्र पीजी की पढ़ाई या बिजनेस के चलते प्लेसमेंट में ही शामिल नहीं हुए। प्लेसमेंट चाहने वाले कुछ छात्र अब तक अच्छे ऑफर मिलने का इंतजार कर रहे हैं। आईआईटी के प्रोफेसरों के अनुसार, अब तक का औसत पैकेज करीब 10 लाख और

अधिकतम करीब 22 लाख है। रिहर्सल में भी रहेंगे चेयरमैन

समारोह के लिए सिमरोल स्थित परिसर में एसी डोम तैयार किए जा रहे हैं। सोमवार को छात्रों ने रिहर्सल की। मंगलवार व बुधवार को भी रिहर्सल की जाएगी। बुधवार को आईआईटी इंदौर के चेयरमैन अजय पियामल छात्रों के बीच पहुंचेंगे। पढ़ाई पूरी कर चुके छात्रों के परिजन भी कार्यक्रम में हिस्सा लेने इंदौर आएंगे। आईआईटी प्रबंधन ने होस्टल परिसर में पालकों के ठहरने की व्यवस्था की है। आईआईटी इंदौर की मीडिया प्रभारी डॉ.निर्मला मेनन ने बताया, समारोह में पिछले साल की तरह ही गोल्ड मैडल प्रदान किए जाएंगे।

पहले रिजल्ट सेका फिर शुरू की वसूली

सेकंड सेमेस्टर के परीक्षा फॉर्म भरने के लिए परेशान हो रहे विद्यार्थी

इंदौर. बीए, बीकॉम और बीएससी सेकंड सेमेस्टर की परीक्षा 7 जून और 10 जून से शुरू हो रही है। परीक्षा फॉर्म भरने के लिए सोमवार को कई छात्र परेशान होते रहे। विवि ने किन्हीं कारणों से इनके पहले सेमेस्टर के परिणाम रोक लिए थे। छात्रों ने विवि के चक्कर काट अपने स्तर पर मूल्यांकन केंद्र से रिजल्ट निकलवाए। एमपी ऑनलाइन से परीक्षा फॉर्म जमा करने के लिए अधिकारियों से संपर्क कर लिंक खुलवाई। छात्र

यूनिवर्सिटी में परीक्षा फॉर्म भरने पहुंचे तो कर्मचारियों ने परीक्षा शुल्क के अलावा दो हजार रुपए लेट फीस मांगी। छात्रों ने रिजल्ट विद हेल्ड की परेशानी बताई लेकिन कोई उनकी सुनने को तैयार नहीं हुआ। कुछ छात्रों ने साल बचाने की मजबूरी में लेट फीस भरी तो कुछ बगैर फीस जमा किए लौट गए। विभाग के असिस्टेंट रजिस्ट्रार अजय वर्मा ने बताया, रिजल्ट जारी होने के तीन दिन तक छात्र बगैर लेट फीस फॉर्म भर सकते हैं। अगर छात्रों से लेट फीस के नाम पर शुल्क लिया है तो आने वाली परीक्षा में समायोजित करवा जाएगा।

# Students, Teachers Urge Irani to Scrap DU's 4-Yr Degree Course

**ANUMEHA CHATURVEDI**  
NEW DELHI

Even as Delhi University (DU) began the admission process for its undergraduate courses on Monday, students and teachers pressed new human resource development minister Smriti Irani to move swiftly to fulfill the BJP's pledge to scrap the four-year degree programme introduced last year despite widespread opposition.

The BJP had, in its election manifesto for Delhi state elections last year, promised to roll back the controversial programme.

While Delhi University Teachers Association (DUTA) officials met Irani on Friday, the BJP-backed National Democratic Teachers' Front (NDTF) met her on Monday to press for the immediate rollback of the four-year degree programme.

"We have presented a detailed memorandum to the minister on the four-year programme, and on various issues plaguing the university. She... assured that she will look into the matter and said that if the four-year programme is found to be violating constitutional and legal guidelines, it will be rolled back," said Pramod C Sharma, NDTF member.

On Friday, DUTA, Democratic Teachers' Front and Jawaharlal Nehru University Students Union had staged a dharna outside Irani's office, seeking a return to the three-year degree course.

"Our first meeting with the minister was very positive and she has promised to do something quickly within the constitutional framework, keeping the best interests of students in mind," said DUTA president Nandita Narain after a meeting with Irani on Friday.

DU began the process of selling admission forms for its various undergraduate courses on Monday, which will continue till June 16. The university is expecting 3 lakh applications for a total of 54,000 undergraduate seats.

**The BJP had, in its election manifesto for Delhi state elections last year, promised to roll back the controversial programme**

the BJP student wing, held protests in DU's north campus at which effigies of vice chancellor Dinesh Singh were burnt.

The introduction of the four-year programme was spearheaded by Singh, adding an extra year to DU's degree programme for foundation courses that are common and mandatory for all degree students.

The idea was to promote an interdisciplinary approach to education, but

agitating teachers and students argue that the country's 10+2 school education system already allows students to choose subjects specific to their discipline, and common foundation courses in degree programmes waste a critical year besides increasing students' financial burden.

"The vice chancellor has been very autocratic in introducing this programme and has not bothered to consult elected student bodies. We have sought a meeting with the minister and have submitted a memorandum to all the seven elected BJP MPs from Delhi on the issue," said Rohit Chahal, national secretary, Akhil Bharatiya Vidyarthi Parishad.

"BJP had promised a rollback in their manifesto, and now that they have come to power, the time has come to fulfill that promise," he added.

ABVP had passed a resolution seeking immediate rollback of the programme at its national executive council meeting held in Mangalore last week.

Under the four-year programme, regardless of their choice of subjects in school, students are expected to study and complete 11 mandatory foundation courses in the first two years of college, and are entitled to get an associate baccalaureate (after two years), baccalaureate (three years) and baccalaureate with honours (four years).

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Times of India ND 3/06/2014 P-19

# A sat to net space debris, remove it from Earth's orbit

**London:** A new European mission aims to rendezvous a satellite with hazardous space debris and render it harmless by netting it like fish.

The European Space Agency (ESA)'s ambitious mission called e.DeOrbit would use a satellite to net space debris and remove it from low Earth orbit.

The agency's Clean Space initiative is studying the e.DeOrbit mission for removing all the space debris, aiming to reduce the environmental impact of the space industry on earth and space alike.

"Launches have left earth surrounded by a halo of space junk: more than 17,000 trackable objects larger than a coffee cup, which threaten working missions with catastrophic collision. Even a 1cm nut could hit with the force of a hand grenade," ESA said.

The only way to control the debris across low orbits is to remove large items like derelict satellites and launcher upper stages.

The e.DeOrbit is designed to target debris items in well-trafficked polar orbits, between 800km to 1000km altitude. PTI

© Volker Möhrke/Corbis

**CLEAN COSMOS**

## Supernova created in lab

**F**or the first time, a massive supernova has been created inside a lab. An international team led by Oxford University scientists used laser beams, 60,000 billion times more powerful than a laser pointer, to recreate scaled supernova explosions in the lab as a way of investigating one of the most energetic events in the universe. Supernova blasts, triggered when fuel in a star reignites or its core collapses, launch a shock wave that sweeps through a few light years from the exploding star in just a few hundred years.

**Kounteya Sinha**

Jun 03 2014 : The Times of India (Delhi)

## India beats Italy, Germany, is No. 2 in textile exports

New Delhi

TIMES NEWS NETWORK

India has overtaken Germany and Italy to emerge as the world's second largest textile exporter. But it lags China, whose exports are nearly seven times higher.

Data released by the Apparel Export Promotion Council (AEPC), the industry body for garment exporters, quoting UN Comtrade, showed that India's textiles exports were estimated at \$40 billion in 2013, compared with China's \$274 billion. Textiles includes everything from fibre and yarn to fabric, made-ups and readymade garments made of cotton, silk, wool and synthetic yarn.

Over 55% of the global trade relates to readymade garments, where India ranked sixth in 2013 with exports of \$16 billion, which is around 40% of the country's textiles exports.

India beat Turkey to move up a notch. For China the share of garments is estimated at close to 60%, indicating that the government needs to provide a bigger fillip to the readymade industry.

Apart from China, Italy and Germany, smaller countries such as Bangladesh and Vietnam have overtaken India in recent years as major suppliers to retail chains in Europe and the US on the back of cheap labour and lower-duty access. The textile industry had expected part of the business from Bangladesh to shift to India after accidents in factories raised safety concerns. But it managed to log 18% growth in the garments segment in 2013, compared to global growth of 6%.

Over the past few months the Indian garment industry has staged a recovery of sorts which can be seen in the 23% rise in exports of shirts, trousers, skirts and other readymades during readymades during 2013. Exporters said a change in focus to markets beyond the US and the EU has helped.

“Despite having slow recovery in US and EU, our biggest traditional markets as well as prevailing global slowdown coupled with sustained cost of inflationary inputs, we made the best possible efforts to Source: AEPC reach here. The government policy of diversification of market and product base has helped us and we ventured into the newer markets, which paid huge dividends,” said AEPC chairman Virender Uppal.

<b>CHINA LEADS</b>			
Global textile exports (\$bn)	2012		Change in %
	2012	2013	
China	246	274	11
India	33	40	21
Italy	34	36	6
Germany	35	35	0
B'desh	24	28	17
World	738	773	5

Source: AEPC

<b>BACK ON TRACK</b>			
Ready-Made Garment Exports (\$Bn)	2012		Change in %
	2012	2013	
China	148	165	11
B'desh	22	26	18
Italy	20	22	10
Germany	19	18	-5
Vietnam	14	18	29
India	13	16	23
World	404	428	6

Source: AEPC

## **Scientists create a 'SUPERNOVA' in the lab: Beams 60,000 billion times more powerful than a laser pointer cause mini explosion**

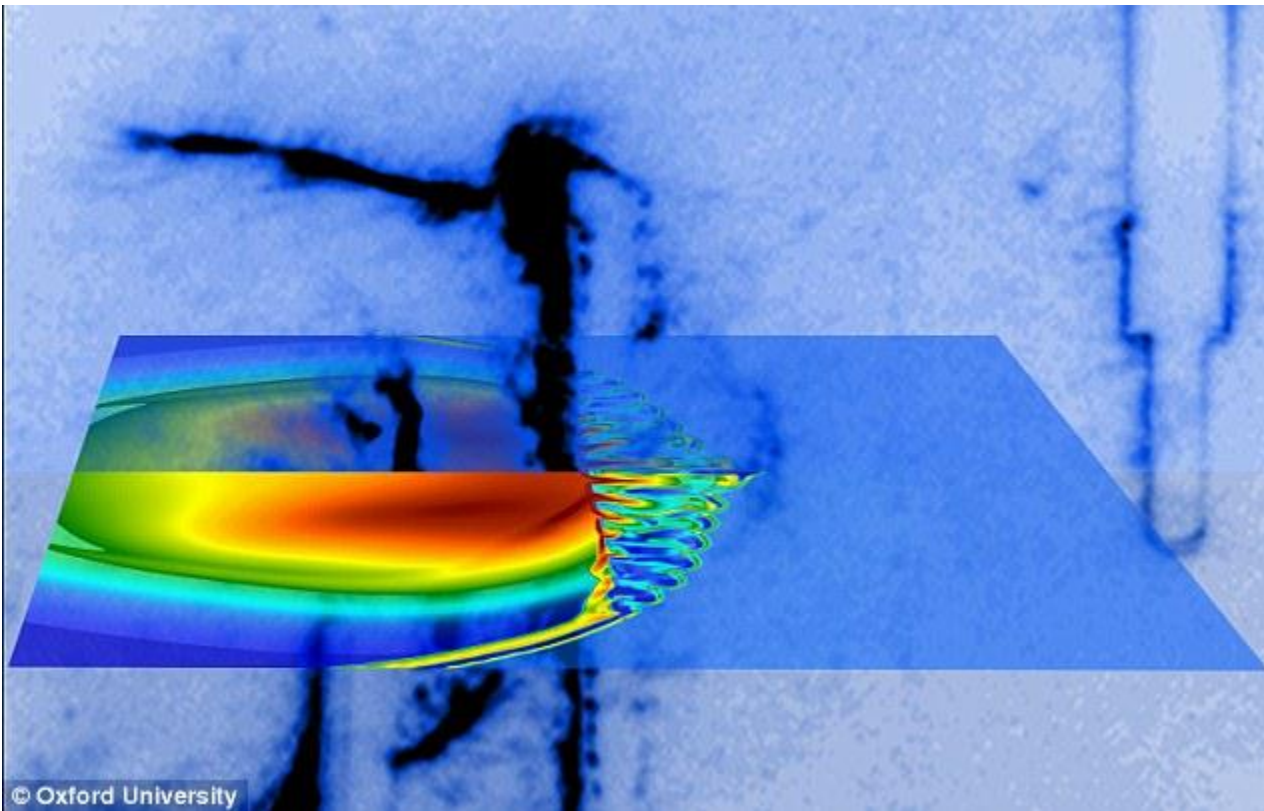
<http://www.dailymail.co.uk/sciencetech/article-2646072/Scientists-create-SUPERNOVA-lab-Beams-60-000-billion-times-powerful-laser-pointer-cause-mini-explosion.html>

- **A team from Oxford University have recreated a supernova explosion**
- **The experiment was performed with the UK's Vulcan laser facility**
- **They heated a rod to millions of degrees by focusing 3 laser beams on it**
- **The rod then exploded into a surrounding gas, mimicking the interaction between a star going supernova and the interstellar medium**
- **Results prove that supernovas do not expand uniformly as once thought**
- **Could also solve the mystery of how magnetic fields formed in the universe**

A team of scientists have recreated a supernova in a laboratory.

Using laser beams 60,000 billion times more powerful than a laser pointer, the Oxford University team made scaled supernova explosions on a table-top.

They say this could be used to study supernova explosions in the laboratory, instead of observing them in space.



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Oxford University scientists have recreated a supernova in a laboratory. Shown here is their experiment; a carbon rod (centre) is being heated by lasers coming in from the left, causing an explosion that expands a shockwave into surrounding argon gas, mimicking a star's expansion into the interstellar medium

Supernova explosions, triggered when the fuel within a star reignites or its core collapses, launch a detonation shock wave that sweeps through a few light years of space from the exploding star in just a few hundred years.

#### TYPES OF SUPERNOVA

**Type Ia:** A white dwarf accumulates material from a stellar companion until it undergoes runaway nuclear fusion and explodes.

**Non-standard type 1a:** Two white dwarfs merge until their combined mass causes an explosion.

**Type II:** A star at least nine times the mass of the sun eventually experiences a core collapse as its fuel runs out, causing it to explode.

**Type 1b and 1c:** A star undergoes core collapse but most of its outer hydrogen has already been lost to stellar winds.

**Hypernova:** Extreme type of supernova, 50 times as energetic as other supernovas, resulting in a black hole. The exact cause of them is unknown.

They are the among the most energetic events in the universe.

But not all such explosions are alike and some, such as Cassiopeia A, show puzzling irregular shapes made of knots and twists.

*More...*

- [Star Trek edges closer to reality: Tractor beam moves object using nothing but the power of ultrasound](#)
- [Virgin Galactic gets the green light: US aviation authorities approve Branson's space flights for launch later this year](#)

To investigate what may cause these peculiar shapes the international team led by Oxford University scientists devised a method to study the explosions in the laboratory.

To recreate a supernova explosion in the laboratory the team used the Vulcan laser facility at the UK's Science and Technology Facilities Council's Rutherford Appleton Lab.

'Our team began by focusing three laser beams onto a carbon rod target, not much thicker than a strand of hair, in a low density gas-filled chamber,' says Jena Meinecke, an Oxford University graduate student, who headed the experimental efforts.

The enormous amount of heat generated by the laser - more than a few million degrees Celsius - caused the rod to explode, creating a blast that expanded out through the low density gas.

In the experiments, the dense gas clumps or gas clouds that surround an exploding star were simulated by introducing a plastic grid to disturb the shock front.

'The experiment demonstrated that as the blast of the explosion passes through the grid it becomes irregular and turbulent just like the images from Cassiopeia,' says Professor Gianluca Gregori of Oxford University's Department of Physics, who led the study published in Nature Physics.

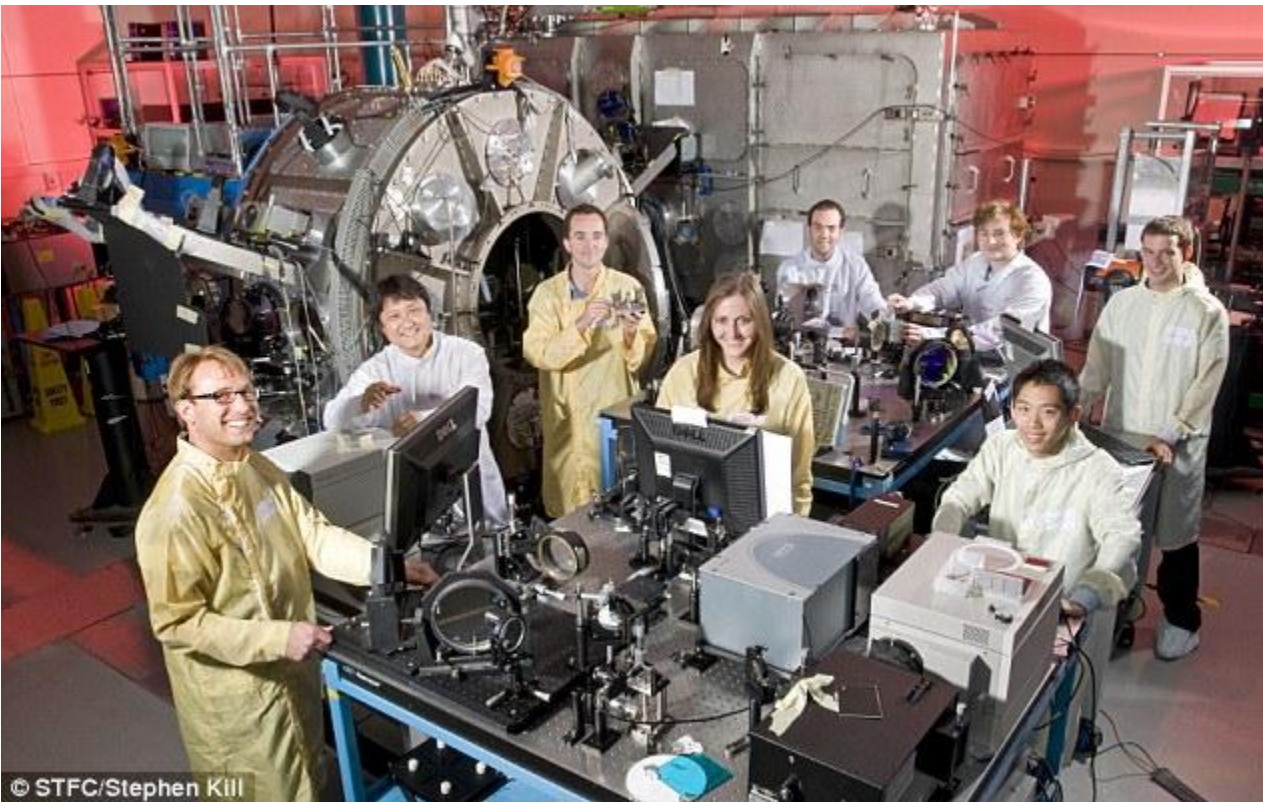
The results confirmed that supernovas do not always expand uniformly into interstellar material such as dust and gas.



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Cassiopeia A, a false colour image shown here using observations from the Hubble and Spitzer space telescopes, is a supernova remnant found 11,000 light years from Earth in the Milky Way. It's odd shape is likely due to interactions between the initial explosion, 300 years ago, and the surrounding interstellar medium





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Pictured are the team of researchers who performed the experiment, shown back in 2012 at STFC's (Science and Technology Facilities Council) Rutherford Appleton Laboratory. To perform their latest experiment the team used the Vulcan laser at the Central Laser Facility, a high-power laser system

'It may sound surprising that a table-top laboratory experiment that fits inside an average room can be used to study astrophysical objects that are light years across,' says Professor Gregori.

'In reality, the laws of physics are the same everywhere, and physical processes can be scaled from one to the other in the same way that waves in a bucket are comparable to waves in the ocean.

'So our experiments can complement observations of events such as the Cassiopeia A supernova explosion.'

The Cassiopeia A supernova explosion was first spotted about 300 years ago in the Cassiopeia constellation 11,000 light years away.

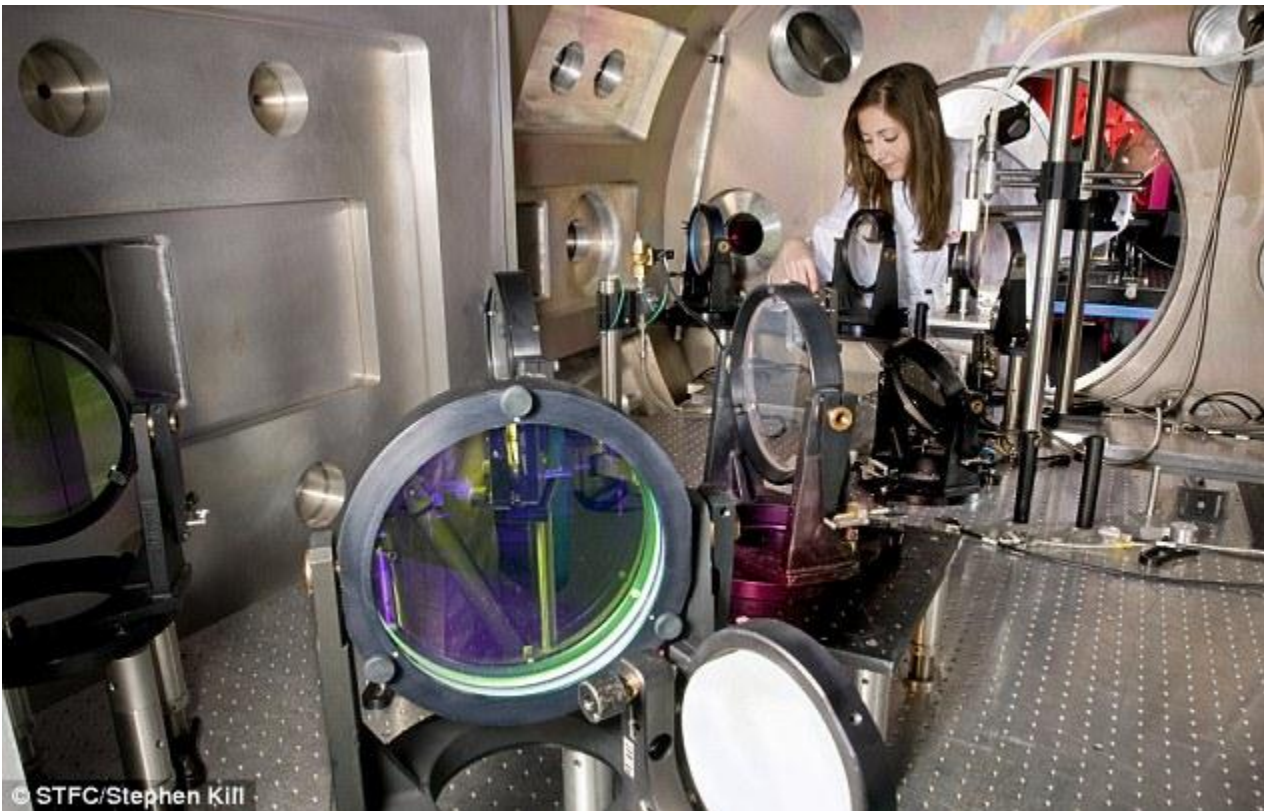
The optical images of the explosion reveal irregular 'knotty' features and associated with these are intense radio and X-ray emissions.

Whilst no one is sure what creates these phenomena one possibility is that the blast passes through a region of space that is filled with dense clumps or clouds of gas.



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Supernovas (artist's illustration shown) are among the most energetic events in the universe but we still know very little about them. It is often said that a star going supernova releases more energy in the explosion than our sun will in its entire 10 billion-year lifetime



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Jena Meinecke from Oxford University was the lead author on the paper. Here she is shown using Central Laser Facilities' (CLF) Vulcan laser to investigate the turbulent flow of inter-colliding plasmas in an ambient background, a separate Laboratory-based astrophysics experiment, in May 2012

One further puzzle of supernovas is their interaction with magnetic fields.

Magnetic fields are known to influence the generation of radiation during a supernova explosion.

But how magnetic fields came to be found everywhere in the universe is a mystery.

'Magnetic fields are ubiquitous in the universe,' says Dr Donald Lamb, from the University of Chicago.

'We're pretty sure that the fields didn't exist at the beginning, at the Big Bang.

'So there's this fundamental question: how did magnetic fields arise?'

The results of this experiment are significant, say the team, because they help to piece together a story for the creation and development of magnetic fields in our universe.

Read more: <http://www.dailymail.co.uk/sciencetech/article-2646072/Scientists-create-SUPERNOVA-lab-Beams-60-000->

[billion-times-powerful-laser-pointer-cause-mini-explosion.html#ixzz33YSM5Kf7](#)

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