Newspaper Clips
September 25-30, 2017

September 30

IIT Roorkee repurposes a drug for chikungunya

http://www.thehindu.com/sci-tech/health/iit-roorkee-repurposes-a-drug-for-chikungunya/article19778185.ece

In in vitro studies, the piperazine drug shows very good antiviral activity

A drug to treat chikungunya virus infection is in the offing, and in vitro studies carried out by a team of researchers from the Indian Institute of Technology (IIT) Roorkee show promise. Currently, there is no cure for the disease and treatment is focused more on relieving the symptoms.

Since the team led by Prof. Shailly Tomar from the Department of Biotechnology at IIT Roorkee used an existing drug piperazine, safety of the drug is already known and hence the trials on animals and humans will be more to understand the efficacy of the drug in treating chikungunya infection.

Piperazine is used for the treatment of worm infections. The antiviral drug indinavir used for treating HIV positive people is a piperazine-based molecule. The derivatives of piperazine are used as anti-histamines and anti-depressants drugs too.

Based on crystal structure, the researchers ascertained that the drug molecule binds to the hydrophobic pocket of capsid protein of Aura virus. Drug binding studies were also carried out using chikungunya virus and it was found that the binding of the drug at the caspid protein was better in the case of chikungunya virus. The function of capsid protein is essential for the virus budding and replication of virus.

On studying the antiviral activity of piperazine molecule against chikungunya, it was found that the molecule inhibits virus replication. “In the presence of this drug, the amount of virus released by

infected cells is less. The drug showed very good antiviral activity," says Prof. Tomar. The results were published in the journal *Antiviral Research*.

Chikungunya viral load reduces significantly when treated with 3 millimolar (mM) of piperazine and has "barely detectable cell teoxicity" when the dosage is doubled to 6mM. "Compared with controls, the inhibition of the virus replication was nearly 98% when 6mM of the drug was used," Prof. Tomar says.

The researchers were not able to directly observe a reduction in the budding process. "We observed a reduction in the virus release from infected cells and we hypothesise that the drug inhibits the budding of the virus as well," she says. Once the drug binds to the target, the capsid protein's interaction with the enveloped protein of virus is inhibited and hence the virus release from infected cells is affected.

Virus replication and budding are correlated. The monkey cell lines were infected with very low virus concentration and then allowed to grow. After 24 hours, the number of virus being released by the infected cells was studied. If the virus is able to replicate then should find more virus, which was not the case.

The chikungunya viral load had reduced by 98% at the end of 24 hours but increases at 48 hours indicating that inhibition of virus replication becomes less at the end of 48 hours compared with 24 hours. "This could be because the drug does not kill all the virus at the end of 24 hours and the drug supplied initially is already bound to the capsid protein target in the virus. So when the virus reinfects nearby cells and replicates, there is not enough drug to bind to the new capsid protein molecules being produced," Prof. Tomar explains.

"The drug molecule is not toxic to normal cells even when 6mM was used," says Ramanjit Kaur from the Department of Biotechnology at IIT Roorkee and one of the first authors of the paper.

"We are in the process of developing new piperazine-based drug molecules," says Megha Aggarwal from the Department of Biotechnology at IIT Roorkee and the other first author of the paper.

The researchers are planning to carry out trials on animals. Since the drug is already approved for use in humans, toxicity studies in animals will not be needed. But studies on animals to evaluate the antiviral activity and, hence, the efficacy has to be carried out. "If results from animal trials are encouraging then we might start human clinical trial," Prof. Tomar says.

HDFC Bank ties up with IITs, IIM-A

http://timesofindia.indiatimes.com/business/india-business/hdfc-bank-ties-up-with-iits-iim-a/articleshow/60888373.cms

Mumbai: HDFC Bank has tied up with IIT-Bombay, IIT-Roorkee and Centre for Innovation Incubation and Entrepreneurship (CIIE) at the IIM-Ahmedabad to mentor and hand-hold fintech startups from those institutions.

The bank plans to launch partnerships with 50 institutes. The objective is to identify potential fintech ideas at entrepreneurship cells in these institutes at a nascent stage.

According to Nitin Chugh, head (digital banking) at HDFC Bank, the bank has been a pioneer in partnering with fintech startups. Several innovations by the bank are an outcome of its Digital Innovation Summit where fintech teams are challenged to come up with solutions. The bank's artificial intelligence- (AI-) driven chatbot Eva was an outcome of one such challenge. Chugh said that the bank was looking at fintechs to come out with solutions that will 'hyper personalise' the bank's engagement with customers.

Besides mentoring the young entrepreneurs, HDFC Bank will also provide them access to the lender's domains to test new products in the absence of finance laboratory.tnn

"Normally the academic research ends at the proof of concept stage with a few scholarly publications and rarely does one find these ideas maturing into a product, or a prototype ready for adoption. Sustained interaction with industry can lead to a more focused approach toward academic research and encourage taking the next logical step to product development and testing," said Manish Shrikhande, Dean — incubation and innovation at IIT-Roorkee.

According to Anand Kusre, head, Desai Sethi Centre for Entrepreneurship, IIT-Bombay, a large number of engineering students move into financial services. He said that IIT Bombay is piloting projects on socially relevant schemes like cashless society. "New technology developments are essential for attaining high-priority objectives like inclusion, superior customer servicing and scale. BFSI and Institutes of Technology therefore need to work together to apply new tools to create high value propositions," said Kusre.

The partnerships have been entered into by HDFC Bank's Centre of Digital Excellence (CODE). Besides industry academia partnerships the center is responsible for the Digital Innovation Summit — where challenges are thrown to fintech companies to come up with solutions. The centre has also recently launched the bank's Digital Dashboard.

Third India International Science Fest to be held in Chennai next month

https://www.brainbuxa.com/education-news/third-india-international-science-fest-to-be-held-in-chennai-next-month-7217

The third is scheduled to be held in Chennai next month said, Union minister Harsh Vardhan. The festival is being organized collectively by the Ministry of Earth Sciences, Ministry of Science and

Technology and Vijnana Bharati (VIBHA) and top scientists from India are expected to participate in four day festival.

The fest will be held from October 13-16 at IIT-Chennai.

The valedictory session of the event will be marked by Venkaiah Naidu, the vice president and the event will be jointly inaugurated by the science and technology ministers of Nepal, Bangladesh, Afghanistan and Portugal.

The festival will have a session on 'Deep Ocean Research', a science teacher workshop focusing on the Northeast, a science film festival, industry academia interactions and summits on grassroot innovators and start-ups.

According to a senior government official a total of INR 10 crore will be spent on the project and Department of Science and Technology, Department of Biotechnology, Council of Scientific and Industrial Research (CSIR) all under the Ministry of Science and Technology and the Ministry of Earth Sciences will collectively bear the cost.

September 29

IITs intake could go up by 1,000 seats next year, most additions at new campuses

http://www.hindustantimes.com/education/iits-to-increase-intake-by-at-least-1-000-seats-next-year-bulk-will-be-at-new-campuses/story-PqajQfoPOWjqDONeP2Ag3O.html

Older IITs such as Delhi, Bombay and Kharagpur may also witness an increase in seats, although not significantly, the HRD ministry said.

The Indian Institutes of Technology (IITs) are likely to significantly increase their intake in the next academic year, providing at least 1,000 additional engineering aspirants with an opportunity to study in the premier establishments.

A senior human resource development (HRD) ministry official said most of these seats will be added through new IITs, such as the ones at Mandi, Hyderabad, Ropar, Jodhpur, Bhubaneshwar, Indore and Gandhinagar. Older IITs such as Delhi, Bombay and Kharagpur may also witness an increase in seats, although not significantly.

The official said as many as 1,000 IIT seats are likely to be added to the existing 10,998, now that construction work on the new campuses is going on at full swing. “From next year, we will also earmark special seats for female candidates,” he added.

As many as 121 seats were left vacant after seven rounds of counselling across 23 IITs this year, up from 96 last year. Consequently, the HRD ministry has asked IITs to consider various ways – including the option of scrapping unpopular courses – to address the situation.

While the number of vacant seats stood at 50 in 2015, it was just three the previous year.

A number of IITs hiked their intake by 400 seats this year. A new proposal for further increasing the seats will be sent soon by the senate of the new IITs to the Joint Admission Board (JAB), which will then take a decision on the matter.

A 14% hike in seats allotted to women – around 600 – was recommended during a JAB meeting this year, taking the total number to 1,440. Women currently comprise just 8% of the total student strength of 23 IITs across the country.

India International Science Festival 2017: Science for New India

http://www.newkerala.com/news/fullnews-275890.html

New Delhi: India has made significant strides in scientific and technological development by also becoming the first nation to reach Mars in its maiden attempt.

India is facing various challenges and opportunities. Some of these important challenges are in the key sectors of clean water & energy, food, environment, climate, and healthcare. It is important to translate the scientific knowledge into innovations through start-ups and industry so as to facilitate India to achieve inclusive and sustainable growth in the coming decades.

This goal can be achieved, through developing scientific temper among the masses and by strengthening India's science and technology institutions & furthering their basic research.

Emphasizing the role of technologies and innovation, India has declared 2010-20 as the 'Decade of Innovation'. The Ministry of Science and Technology, Ministry of Earth Sciences, and Vijnana Bharati (VIBHA) have come together to organize The India International Science Festival (IISF) every year, since 2015 to encourage scientific temper among the masses and showcasing Indian contribution in the field of S&T over the years. The previous two editions of IISF held at New Delhi have been a great success.

The 3rd edition of IISF 2017 will be held in Chennai during 13-16 October, 2017 at various venues which include Anna University, Central Leather Research Institute (CLRI), Structural Engineering Research Centre (SERC), National Institute of Ocean Technology (NIOT) and IIT-Madras.

The prime objective of the festival is to instill scientific temper among the masses and showcasing India's contribution in the field of S&T over the years. It aims to build a strategy

for rural India through the advancement of Science and Technology. Further, the science festival also intends to make innovation beneficial for the people and develop technology that is affordable to the masses.

Major Activities during the Festival will be:

1. Special Thematic Session on 'Deep Ocean Research'
2. Science & Technology Minister's Conclave
3. Sensitizing Youth to Flagship Programs of Government (SYPOG)
4. Science Village: Parliament to Panchayat''
5. National Meet on 'Social Organisations and Institutions': 'Transforming India through Science & Technology'
6. Women Scientists & Entrepreneur's Conclave
7. National Science Teachers Workshops (Focusing North East States)
8. Industry Academia Interaction
9. Mega Science, Technology & Industry Expo
10. India International Science Festival
11. Grassroots Innovators Summit
12. National Start-up Summit
13. Round Table Meet on Mass Communication
14. World Record attempt will be made in "Largest Biology Lesson"
15. National Level Competitions - Ideas for Bharat Nirman
16. Outreach Programme in R&D Labs
17. Satellite Seminars
18. Cultural Events

The Govt of India is launching a National Mission on Deep Ocean Research which will bring in huge economic benefits by harnessing the ocean resources (water, energy and minerals). A special thematic session on Deep Ocean Research will be held.

The Scientific departments and Ministries of the Government of India have active international collaboration in science and technology both at the bilateral and regional level. India is engaged in R&D cooperation with more than 44 countries across the globe including advanced, emerging and developing nations. The S&T Ministers Conclave at IISF-2017 will provide an opportunity to exchange the scientific and technological priorities of the participating countries that can help to develop a roadmap for S&T cooperation. This roadmap can be used by all the S&T Departments to engage proactively with each of these countries. The focus will be on capacity building through mechanisms such as fellowships, internships, twinning, training, data sharing, joint projects and technology transfer. The development and deployment of affordable and innovative technologies that provide solution to societal problems will also be a common agenda for the Conclave. Participation

of Ministers from Afghanistan, Bangladesh, Nepal and Portugal are expected in the Conclave.

'Science for New India' aims to provides a platform to young students, scientists and technocrats from across India for the exchange of knowledge & ideas in the line of flagship programs like 'Swachh Bharat Abhiyan', 'Swasth Bharat Abhiyan', 'Make in India', 'Digital India', 'Smart Villages', 'Smart Cities', 'Namami Gange', 'Unnath Bharath Abhiyan', etc.

An important event of the IISF-2017 is the Science Village program which is linked with the Pradhan Manthri Sansad Adarsh Gram Yojana to reach out to the rural masses and propagate science to the extent of seeking scientific solutions to the diverse challenges facing our society, particularly rural India.. Each Member of Parliament will nominate 5 students from class 9th - 11th and 1 teacher from their adopted village. The Science Village will thus demonstrate a mass representation from the rural parts of India and a continuation of the democratic process: "Parliament to Panchayat". The prime goal of the science village is to give exposure to the students from rural India and make them aware of India's achievements in the frontier areas of science & technology.

As a unique programme of IISF 2017, a Women Scientists & Entrepreneur's Conclave titled "Game Changers Driving Science for New India" would be organized to promote and encourage science education and entrepreneurship among the women. The aim of the programme is to develop new entrepreneurship and also explore new vistas of opportunities in the field of science and technology among the women.

The Industry-Academia interaction meet aims at Industry - Academic Institutional tie ups in R&D and achieving improved efficiency in production and manufacturing. The interaction will bring out a brief proceeding on the recent paradigm changes in various sectors of Industry. Representatives from industry and academia will also have a good opportunity to discuss the changing trends on management principles, scientific advancement and technological assimilation in industry and economy.

National Innovation Foundation (NIF) will be organising the 'Innovation Exhibition' as a part of the Grassroots Innovators Summit, which aims at providing a common platform for various stakeholders—from innovators, students, researchers to policy makers. About 100 innovative technologies from all states of the country will be showcased at the exhibition. The special focus will be given to those which could be diffused socially and generate employment.

The Round Table Meet on Mass Communication will address the various methods and techniques to popularize science and its applications. In the International Science Film Festival, Films on science focusing on science fiction from India and abroad will be screened.

World record attempts have been a key part of IISF since 2015; in IISF 2015, students took a successful shot at the Guinness world record for the World's Largest Science Lesson at IIT Delhi. In IISF 2016, at NPL, Pusa, a group of 550 students attempted the world record for Largest Gathering of People Dressed as Nobel Prize-winning scientist Albert Einstein. In IISF 2017, a World Record attempt will be made in "Largest Biology Lesson". 1000 students from Class 9th & 10th will be gathering at the venue in Chennai for this attempt.

The IISF is not only a celebration of science and technology through exhibitions and relevant events, but also has been geared up to spread awareness on the flagship programs like 'Swachh Bharat Abhiyan', 'Swasth Bharat Abhiyan', 'Make in India' and 'Digital India'.

The Honourable Vice President of India and many Union Ministers will be participating in IISF-2017.

The IISF will go a long way in delivering the goal of imparting 'spirit of enquiry' to the public masses.

September 28

IIT Kanpur, other national institutes decide to take Sanskrit language to masses

http://indiatoday.intoday.in/education/story/iit-kanpur-sanskrit-language/1/1056987.html

The larger goal was to take Sanskrit texts to the reach of every researcher, and ultimately benefit society, said Rashtriya Sanskrit Sansthan Vice-Chancellor P.N. Shastry.

The best of brains from the domains of literary, academic, pedagogical and technological platforms are joining hands to achieve synergy -- taking the Sanskrit language to the masses. Several institutes including IIT Kanpur are ready to converge for the mammoth task.

The aim of the project is to revive the Sanskrit language.

Institutes among the list

Several institutes participated in a two-day national workshop on 'Digitised Sanskrit Corpus', underway on the Rashtriya Sanskrit Vidyapeetha campus on Wednesday.

Here's the list of participating institutes

- Indian Institute of Technology Kanpur (IIT Kanpur)
- Representatives of Rashtriya Sanskrit Sansthan (New Delhi)
- Vaidika Samshodhana Mandala (Pune)
- Karnataka Sanskrit University (Bengaluru)
- Kalidasa Sanskrit University (Ramtek, Nagpur)
- Samskruta Bharati (Bengaluru)
- Chinmaya Sanskrit Vishwa Vidyapeeth (Veliyanad, Ernakulam)
- Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha (New Delhi)
- Sanskrit Samvardha Parishad (New Delhi)
- Sanskrit Academy (Melkote)

The discussion was not only about the status of projects in progress and the future tasks on hand but also upgrading to the latest technology in terms of platform and operating system so as to generate searchable and relatable content at the click of a mouse.

While speaking to *The Hindu* on the sidelines of the workshop, Rashtriya Sanskrit Sansthan Vice-Chancellor P.N. Shastry said that the larger goal was to take Sanskrit texts to the reach of every researcher, and ultimately benefit society.

Core concept is to avoid redundancy

While so many institutes have converted paper content into digital format over a decade, thus giving scope for duplication, the core exercise is to avoid redundancy and also adapt to the latest technology available in the world of web.

There will be an official signing process, where the institutes will be inking a Memorandum of Understanding (MoU) to define the scope of the project, identify new content and also enable transliteration, said Prof V. Muralidhara Sarma, Vice-Chancellor of Rashtriya Sanskrit Vidyapeetha (RSVP) at Tirupati.

BMC, IIT-B IN TALKS TO PROMOTE STARTUPS

HTTPS://MUMBAIMIRROR.INDIATIMES.COM/MUMBAI/CIVIC/BMC-IIT-B-IN-TALKS-TO-PROMOTE-STARTUPS/ARTICLESHOW/60864037.CMS

Companies will be provided office space in a facility in Andheri at a nominal charge for a limited period.

The BMC is in talks with IIT Bombay to open a technology business incubator (TBI) which would provide startups with the necessary infrastructure and mentoring to tackle civic issues with the use of new-age technology. While the civic body has zeroed in on a location in Andheri for the facility that will be modelled around the TBI run by IIT-B's Society for Innovation and Entrepreneurship (SINE), officials are yet to sign a final deal.

September 27

IIT-Roorkee students develop affordable soil testing solutions

http://www.hindustantimes.com/education/iit-roorkee-students-develop-affordable-soil-testing-solutions/story-V1oOHtvPOfoT599Xlmao2K.html

A device, Solving Nitrogen Application Problems (SNAP) will mitigate the ineffective use of fertilisers which leads to downsizing of the crop yield

The device is a programmed camera module, used to click the image of leaves and determine the nitrogen content in the soil.

New Delhi IIT-Roorkee students have developed cost-effective soil testing solutions that can be used by farmers to boost crop productivity through balanced use of fertilisers.

Students from the Indian Institute of Technology Roorkee have developed a device called Solving Nitrogen Application Problems (SNAP) to mitigate the ineffective use of fertilisers which leads to downsizing of the crop yield.

SNAP, an optical imaging application, can determine the optimum fertiliser input by 'multi-spectral imaging' of crop leaves, a statement said.

The device has been developed by a team led by third year B-Tech student Ekdeep Lubana with Ankit Bagaria, Utkarsh Seth Saxena and Anisha Godha. It is a programmed camera module, used to click the image of leaves and determine the nitrogen content in the soil.

"Poor awareness and illiteracy among rural farmers forces them to believe that the low yield is due to insufficient usage of fertilisers. 'SNAP' aims to bring the power of 'Smart Soil Analysis' into the hands of the farmers," it said.

Ekdeep Lubana, B-Tech student, IIT Roorkee said, "Our main aim was to provide farmers with a low-cost and easy solution to determine the amount of fertiliser to be used".

The application will guide farmers in a simple manner on how much fertiliser is to be used on the basis of analysis of the leaves, Lubana said.

"Team SNAP and the project stood out among 900 teams from more than 70 countries and emerged as the winner of the Ericsson Innovation Awards 2017 and were awarded 25,000 Euros," the statement said.

IIT Kharagpur alumni develop social network to connect foodies to eateries

http://www.hindustantimes.com/education/iit-kharagpur-alumni-develop-social-network-to-connect-foodies-to-eateries/story-NXVJQCTAZyt2nxsNPc75PL.html

Mainak Sarkar, Pritam Khan, Abhijit Ghosh and Sumit Agarwal have built a social network-cum-utility platform for foodies anywhere in India, which is accessible both on mobile and desktop

Eatable helps food lovers and tourists find the best places to eat at a particular location and also aids businesses to widen their reach.

Kolkata This festive season connect with fellow foodies, spread the word about an eatery and discover exciting places to grab a bite -- courtesy Eatable, a social network for food lovers created by IIT Kharagpur alumni.

The platform not only helps food lovers and tourists find the best places to eat at a particular location, it also aids businesses to widen their reach.

Three alumni from IIT Kharagpur -- Mainak Sarkar from the electrical engineering department, and Pritam Khan and Sumit Agarwal, from the computer science and engineering department -- developed this social network-cum-utility platform for foodies anywhere in India accessible both on mobile and desktop.

The fourth co-founder is Abhijit Ghosh, a civil engineering final year student from IIEST Shibpur.

“It is a social network just like Facebook but exclusively for food lovers where they can connect with other fellow foodies and also their favourite eateries,” Mainak Sarkar, co-founder and CEO, Eatable, said.

“The idea came from problems faced by travellers at new or unknown places about the availability of choice of food, locations and quality.”

Users can connect with fellow foodies and share their experiences, recommend their favourite eating places to their friends and followers, and help add a place to the network’s database.

“A person can add a place, they had food at and liked, to the platform via the ‘Discovery’ post option which adds that place to our database. How this helps is by letting people know about the places that are not usually available on any other platform,” Sarkar said.

How does it help businesses?

“It allows eateries (restaurants, cafes, bars, pubs and others) from any location with internet access to join the platform and connect with their customers and keep them engaged and updated about all their activities in real time,” Sarkar said.

“Users can follow and recommend the places they visited and liked. When a user recommends, a notification is sent out to all their followers about it and it remains saved. So this recommendation helps businesses by spreading word-of-mouth publicity.”

Sarkar said eateries can edit and post content easily by themselves unlike other platforms where they need to mail these platforms about offers and updates and it takes a lot of time before it is reflected on those platforms.

“When these eateries post updates, their followers are notified about these updates in real time. This allows eateries to have a much higher reach and since Eatable is exclusive to food, chances of content getting lost is very low,” he added.

Women power more visible now

http://www.freepressjournal.in/analysis/women-power-more-visible-now-bhavdeep-kang/1143735

Patriarchy is fighting a losing battle. The one positive takeaway from the lathi-charge on women students at Benares Hindu University (BHU) is that it signals a wave of feminine assertion. Naturally, this provokes a backlash. Women are on the move, with unprecedented physical and social mobility, and are more visible and vocal than ever before. So much so, that the power of the state must be deployed to beat them down.

The most revealing take on the state assault against protesting students comes in the form of a facebook post by Ranchi-based journalist Nirala Bidesia, who shared a nine-month-old interview with BHU vice-chancellor Girish Chandra Tripathi. The VC stands exposed as a closet chauvinist.

Bidesia: "What are these farmans you have issued – that non-veg is not allowed in the girl's hostel, that wi-fi will be shut off at night, that girls must return to hostel by sundown, etc?"

VC: "Have you studied here? Do you have a sister or daughter at home? Answer the question." He goes on to say that if the journalist had a daughter or sister, he would not be asking such questions.

Bidesia reveals that his sister is a student at BHU. The VC changes track. He offers him a PhD at BHU, but when Bidesia declines, he refuses to answer any questions (incidentally, Bidesia funds a school for tribal girls, entirely from his own resources).

Clearly, the discontent among the women students at BHU over routine discrimination has been brewing for at least a year. It was only when a hostel warden took a blatantly sexist "blame the victim" attitude to a complaint about eve-teasing on the campus premises, that it boiled over into a full-on agitation. The VC's response? Get the police to beat up the protesting students.

As for the administration, the response has been mixed. On the one hand, an FIR has been registered against 1,000 un-named students who took part in the protest. On the other, district authorities have held the BHU authorities accountable for their insensitive handling of the episode. A magisterial inquiry is underway.

The encouraging aspect is that women are now speaking up against discriminatory practices in university hostels, which were the norm as late as the 1990s. Recently, three institutions – IIT-Delhi, Delhi University's Hindu College and the DU Department of Social Work – which had issued separate notices on 'dress codes' for women, were forced to withdraw them. In Bhopal last year, women students of the Maulana Azad National Institute of Technology (MANIT) boycotted classes in protest against the hostel curfew and dress code.

The 'Pinjda Tod' movement in Delhi opposes different rules for men and women in university hostels and has prevailed on the Delhi Women's Commission to issue a notice to all the 23 universities in Delhi in this regard. Hostel wardens are not in loco parentis, nor are most of the women in their charge minors. They are well able to determine lifestyle and fashion choices for themselves.

University authorities, like the BHU VC, justify discrimination on the grounds of "safety and security" of women students. The trouble is that most of our public respresentatives and academics buy this argument. The paternalistic pseudo-concern for women's safety, without actually doing anything about it, is characteristic not only of our academic culture but of governance per se. Rather than ensure that streets are safe, women are adjured not to venture out at night – as if we exist in a permanent state of siege.

Misogyny has no political colour. Samajwadi Party founder Mulayam Singh Yadav, BJP MP Sakshi Maharaj, Congress MP Abhijeet Mukherjee, TMC MP Tapas Pal, JD(U) rebel Sharad Yadav and a long

list of public representatives have had no qualms about parading their antediluvian mindset in public. By their reckoning, rape is a legitimate instrument against political rivals or a natural expression of male dominance and women who sport short hair and make-up and venture out of the home are suspect.

This porcine brigade is a familiar enemy. Sangeeta Varshney, the interfering BJP aunty from Aligarh who publicly rained slaps on a young woman for having a Muslim boyfriend, is very much a member of this herd, regardless of her gender.

The police, not surprisingly, accepted her 'love jihad' version of events and held the hapless boyfriend accountable. Fortunately, public opprobrium compelled them to also take cognizance of the complaint filed by the young woman's father against Varshney.

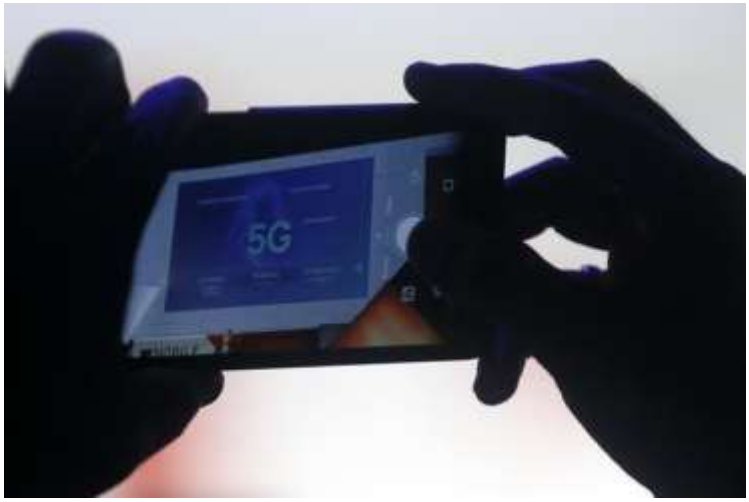
It's not difficult to guess where Varshney is coming from. A bunch of hoodlums claiming to be VHP, Bajrang Dal and ABVP workers attacked a young inter-faith couple in Hapur (western UP) two days ago. The point is that in both cases, the woman concerned was an adult – yet, she was deemed a "victim" of "love jihad". The infantalization of women by 'love jihad' activists is both obnoxious and illegal and militates against the Constitution of India.

In India, women's assertion is not the result of any political movement. Why then, should political forces attempt to stem the tide? Empowerment has followed naturally from democratic processes and socio-economic and technological changes, giving women access to education, careers, mobile phones and two-wheelers. Reactionary elements within the political sphere have no right to take that away.

By when will India get 5G telecom services; find out here

http://www.financialexpress.com/economy/how-big-an-opportunity-will-5g-create-for-telcos-in-india-telecom-secretary-explains/872243/

The department of telecommunications on Tuesday announced the formation of a high-level forum to develop the road map for operationalising fifth generation (5G) services in India by 2020.



The terms of reference of the high-level Forum for 5G India 2020 shall be — Vision Mission and Goals for the 5G India 2020, and Evaluate, approve road maps & action plans for 5G India 2020.

The department of telecommunications on Tuesday announced the formation of a high-level forum to develop the road map for operationalising fifth generation (5G) services in India by 2020. Besides, the government has also earmarked Rs 500 crore for research and development (R&D). “We cannot be left behind in 5G when many other countries are adopting the 5G technology. With this forum, India too will be successful in launching 5G by 2020,” Manoj Sinha, telecom minister Manoj Sinha told reporters. He said Rs 500 crore will be spent by the three ministries — telecom, electronics and IT and science and technology — on this. The panel also includes experts like Professor Emeritus of Stanford University A Paulraj, chairman of Sycamore Networks, Gururaj Deshpande and Indian industry led by chief executive officers of ICT industry, Telecom Standard Development Organisation of India (TSDSI), Professors from IIT Madras, IIT Mumbai, IIT Delhi, IIT Hyderabad, IISc Bengaluru and the IT industry. The terms of reference of the high-level Forum for 5G India 2020 shall be — Vision Mission and Goals for the 5G India 2020, and Evaluate, approve road maps & action plans for 5G India 2020. 5G gives an opportunity to the industry to reach out to global markets as well as to the consumers to gain with the economies of scale. The primary goals of the forum are to achieve early deployment of 5G in India and a globally competitive product development and manufacturing ecosystem targeting 50% of Indian market and 10% of the global market over next five to seven years, the minister added.

September 26

IIT Ropar Professor Bags NASI-Scopus Young Scientist Award 2017

https://indiaeducationdiary.in/iit-ropar-professor-bags-nasi-scopus-young-scientist-award-2017/

Ropar, 26th September 2017: Dr. Rajendra Srivastava, Associate Professor and Head, Department of Chemistry, IIT Ropar has been awarded the prestigious NASI-Scopus Young Scientist Award 2017 for his leading contribution in Chemistry. Dr. Rajendra was chosen in the field of Chemistry from among many other scientists and researchers from other Institutes. He has been known for his outstanding work in the area of Catalysis, especially heterogeneous catalysis.

Speaking about the achievement, Dr. Rajendra Srivastava, Associate Professor and Head, Department of Chemistry, IIT Ropar said “It is an honour to have been selected from among the best of scientists and researchers for the award. This award provides support for young researchers early in their career to pursue path-breaking research with a societal impact. My research area will have high socio-economical impact on the national and global front and I hope to address several challenges which are being faced by our society.”

Through his research, Dr. Rajendra Srivastava is working towards developing a new class of nano-porous materials or develop synthesis strategies to improve the physico-chemical properties of existing materials. Consequently, the synthesis and applications of microporous/mesoporous crystalline materials such as zeolites, metal oxides, polyaniline, hybrid organo-inorganic materials (metal organic framework), and carbon materials are being explored in his lab.
Dr. Rajendra aims at developing sustainable catalysts, electro catalysts, and photo catalysts based processes which are useful to petrochemical/fine-chemical industry, energy sectors, clinical

diagnostic, and water research. Success in this direction has high socio-economic impact on the national and global front to address several challenges which are being faced by our society.

About Dr. Rajendra Srivastava

Dr. Rajendra Srivastava has completed his Master of Science in Chemistry from Gorakhpur University, Uttar Pradesh and Doctor of Philosophyin Chemistry from University of Pune (Work carried out at CSIR-National Chemical Laboratory, Pune). He worked as a post-doctoral research fellow at Korea Advanced Institute of Science and Technology, South Korea and as a JSPS Fellow at Hokkaido University, Japan. He has published more than 110 research papers and has, to his credit, 7 international patents. His doctoral work was adjudged the Best Thesis Award for the year 2006 by Catalysis Society of India. He was shortlisted for the final round of INSA Medal of Young Scientist, 2012. His contribution received recognition in the form of Most cited author in Chemistry (6th rank) and Chemical engineering (7th rank)for the year 2011-15 compiled by National science and technology management information system (NSTMIS), in the DSTreport.

Infosys Foundation, IISc signs MoU worth Rs 5 crore to broaden research activities

http://indiatoday.intoday.in/education/story/infosys-foundation-iisc-mou/1/1056043.html

"This association will facilitate an interdisciplinary approach, with a focus on research about infectious diseases, leading to the development of new drug targets, drug delivery systems and novel diagnostic tools," said Infosys Foundation Chairperson, Sudha Murthy.

In order to enhance infrastructure and increase research activities at Infosys Foundation, the philanthropic arm of Infosys, a Memorandum of Understanding (MoU) has been signed with Indian Indian Institute of Science (IISc) Bangalore.

As reported, the Infosys Foundation has signed an Rs 5 crore MoU for Infectious Diseases Research (CIDR).

Here's what Infosys Foundation Chairperson Sudha Murthy said:
"With this MoU, Infosys Foundation aims to set milestones in the area of research of infectious diseases. We will focus on motivating researchers to perform cutting-edge research, as well as train them to raise awareness about infectious diseases," Infosys Foundation Chairperson Sudha Murthy told *PTI*.

More on the report:

- Rs 5 crore will be used towards research, training and creating awareness, about infectious diseases, benefiting 25 faculty members and 250 students at IISc
- IISc is a public university for research and higher education in all science and engineering disciplines

- This association will facilitate an interdisciplinary approach, with a focus on research about infectious diseases, leading to the development of new drug targets, drug delivery systems and novel diagnostic tools, Sudha Murthy added.

IISc PhD researchers to soon get Rs 70,000 monthly fellowship:

In a major announcement, all the students doing Doctorate of Philosophy (PhD) from the Indian Institute of Technology (IIT) and the Indian Institute of Science (IISc) will be getting Rs 70,000 per month as fellowship amount.

The statement came from Centre's Union Higher Education Secretary, Kewal Kumar Sharma. As of now, all the researcher-students get just Rs 25,000 as monthly scholarship at IITs.

Meanwhile, a significant change in the Times' 2018 list was seen as the Indian Institute of Science (IISc), which was in the 201-250 band last year, has slipped further into the 251-300 band.

IITs shift focus to driving industry-sponsored research

http://economictimes.indiatimes.com/industry/services/education/iits-shift-focus-to-driving-industry-sponsored-research/articleshow/60833690.cms

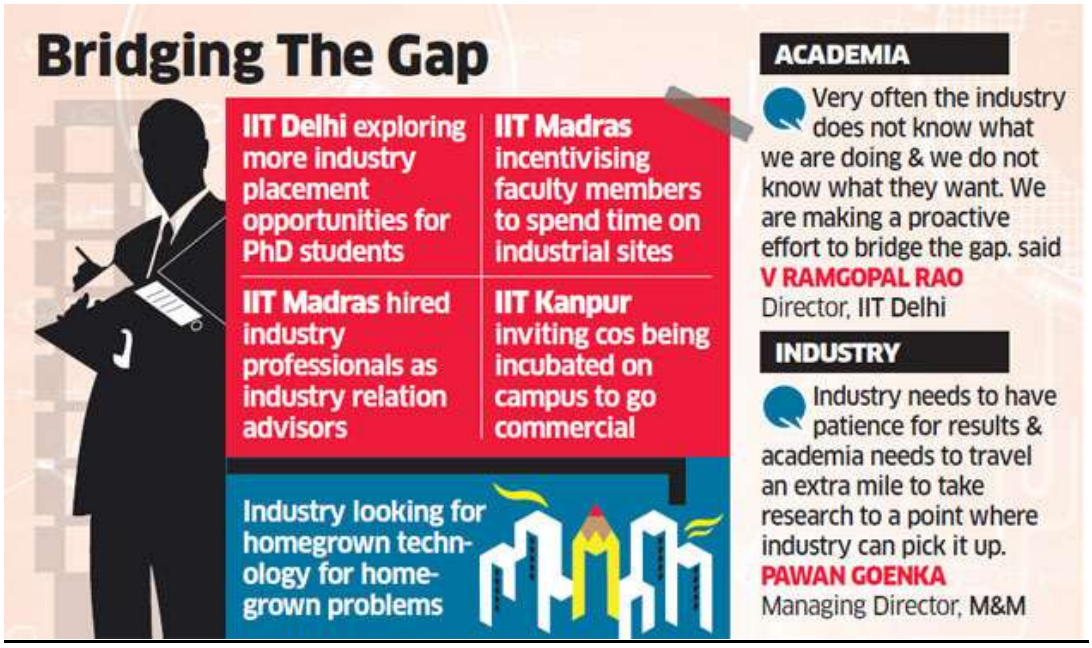
MUMBAI: The premier Indian Institutes of Technology (IITs) have started engaging more with industry to drive research partnerships and create new work opportunities for their graduating PhD students, for whom academic roles are almost the only option.

The move is aimed at increasing research collaboration and funding from industry to up to 50 per cent of total research requirement, from 10-15% at present.

While IIT Delhi is exploring more industry placement opportunities for the more than 300 students who will graduate with PhD degrees this year, IIT Madras has hired five experienced industry professionals as industry relation advisors to help develop research collaboration with industry. The institute is also incentivising faculty members to spend two to six weeks in a year on industrial sites.

“Very often the industry does not know what we are doing and we do not know what they want. This time we are making a proactive effort to bridge the gap,” said V Ramgopal Rao, director of IIT Delhi. “We need to provide job opportunities for our PhD students, who otherwise typically go for higher studies or take up an academic job.”

The other IITs, too, are giving a push to their engagement with industry to make research work more contextual and industry-driven, and to attract more private funding.



Over the next five years, IIT Delhi is aiming for an even split of sponsored research between industry and the government, up from 10-15% industry funding at present. The institute has seen a doubling of research funding this year.

On Saturday, the premier institute organised “Industry Day” on campus where students could connect with industry executives.

Students had put on display prototypes of research designs so that industry executives could give guidance on how to make them more commercially relevant.

“All these years’ research was more publication possibility driven than industry-driven.

Our aim is now to bridge the gap,” said Krishnan Balasubramanian, professor of mechanical engineering at IIT Madras.

The institute is in the process of creating an intellectual property management cell with patent agents who will be industry professionals.

The efforts have led to doubling of industry funding to Rs 140 crore in 2016-17 from a year ago. The institute expects industry’s contribution to research to touch Rs 160 crore in 2018. IIT Madras got a total research funding of Rs 500 crore in 2016-17, of which about Rs 350 crore was from the government.

The research park occupants at the different IITs also collaborate with the institutes. Meanwhile, IIT Kanpur is in the process of creating a Section VIII non-profit company to invite companies now being incubated on campus to go commercial. The institute is also trying to create a research park on campus where companies can open office. “All this is to drive more partnership with the private industry,” said Indranil Manna, director, IIT Kanpur.

Industry, too, is looking for homegrown technology for homegrown problems. There is increasing acceptance that many of the solutions available overseas are best suited for conditions outside of India. This has led to the need for adapting research to Indian conditions and to increase efforts of collaboration with academic institutions to accelerate R&D and innovation.

“Indian industry needs to spend a lot more on R&D and technology. I consider it a prerequisite for India to become a manufacturing economy with high manufacturing value add,” said Pawan Goenka, managing director, Mahindra & Mahindra. Goenka is the chairman of the board of governors of IIT Madras.

Goenka said it is not possible to look at individual projects on a cost-benefit analysis basis. “Not every R&D project can lead to a successful product, but blockbuster products will emerge in some instances and will pay for all the R&D investment,” he said. “Industry needs to have patience for results and academia needs to travel an extra mile to take research to a point where industry can pick it up.”

Gajendra S Chandel, chief human resource officer at Tata Motors, said, “Through this process, we are able to create skilled manpower in line with the organisation mandate of becoming future ready.”

The RPG Group is working on a project for reducing timelines for civil infrastructure and a project related to structural designs with the IITs. “For KEC, our decision to partner and collaborate with these institutes is driven primarily by our culture of innovation, and not cost reduction,” said Harsh Goenka, chairman of RPG. For Raychem RPG, the core motive for collaboration is exploring long-term basic research projects, where the industry-academia collaborative research works well.

सड़कों की जांच आईआईटी रुड़की से कराई जाएगी

http://www.livehindustan.com/ncr/noida/story-roads-will-be-examined-by-iit-roorkee-1570073.html

यमुना प्राधिकरण क्षेत्र में सड़क बनाने से पहले मिट्टी समेत निर्माण सामग्री की जांच आईआईटी रुड़की में कराई जाएगी। प्राधिकरण इसके लिए प्राधिकरण आईआईटी रुड़की को अपनी नोडल एजेंसी बनाने के भी प्रयास में है।मानकों के हिसाब से सड़क नहीं बनने से वह अधिक समय तक नहीं चल पाती हैं। सड़क निर्माण में किस सामग्री की कितनी मात्रा की जरूरत है, उसका पता नहीं चल पाता है। यही कारण है कि सड़क जल्द ही टूटने लगती है। अब इस समस्या से निजात दिलाने के लिए काम शुरू हो गया है। यमुना प्राधिकरण सड़क निर्माण से पहले मिट्टी की जांच कराएगा। साथ ही, सड़क में कौन सी सामग्री कितनी इस्तेमाल करनी है, इसका भी निर्धारण कराया जाएगा। इसके लिए आईआईटी रुड़की से सहयोग लिया जाएगा। इन तरह की जांचों के लिए करीब 12 हजार रुपये खर्च करने पड़ेंगे। इससे सड़क की उम्र अधिक हो जाएगी। प्राधिकरण के चेयरमैन डॉ. प्रभात कुमार ने बताया कि गुणवत्ता सुधारने के लिए मिट्टी आदि की जांच कराई जाएगी।नोडल एजेंसी बनाने की तैयारीप्राधिकरण क्षेत्र में

कामों की गुणवत्ता बनाने के लिए आईआईटी रुड़की को नोडल एजेंसी बनाने की तैयारी है ताकि निर्माण से पहले उसकी जांच कराई जा सके। इससे गुणवत्ता में सुधार आएगा और लोगों को बेहतर सुविधाएं मिल सकेंगी। इससे प्राधिकरण को भी फायदा होगा। खर्चे कम करने पर जोरप्राधिकरण के चेयरमैन डॉ. प्रभात कुमार ने अधिकारियों के साथ हुई बैठक में खर्चों में कमी पर जोर दिया। उन्होंने कहा कि प्राधिकरण के अधूरे कामों को तेजी से पूरा कराया जाए। आवंटियों को सुविधाएं दी जाएं। उनके कामों को प्राथमिकता के आधार पर पूरा किया जाएगा। लापरवाही बरतने वाले अधिकारियों और कर्मचारियों के खिलाफ कार्रवाई की जाएगी।

September 25

छात्राओं के लिए आईआईटी में 12 फीसदी और एनआईटी में 15 फीसदी सीटें होंगी आरक्षित

http://www.livehindustan.com/jharkhand/jamshedpur/story-12-per-cent-for-iits-and-15-per-cent-seats-in-nit-for-girl-students-1567968.html

देशभर के 23 इंडियन इंस्टीट्यूट ऑफ टेक्नोलॉजी (आईआईटी) और 31 नेशनल इंस्टीट्यूट (एनआईटी) में छात्राओं के लिए सीटें आरक्षित की जाएंगी। सत्र 2018 से यह व्यवस्था लागू होगी। आईआईटी में 12 प्रतिशत और एनआईटी में 15 प्रतिशत तक सीटें आरक्षित होंगी। इंजीनियरिंग के प्रति छात्राओं की घटती रुचि और कम नामांकन के कारण यह कवायद हो रही है। इस वर्ष आईआईटी में महज 8 प्रतिशत सीटों पर ही छात्राओं का नामांकन हुआ है। 25 हजार सीटों पर सिर्फ 3 हजार सीटों पर ही छात्राएं नामांकित हुई हैं। संस्थानों में बढ़ाई जाएंगी 4 प्रतिशत अतिरिक्त सीटें : केंद्रीय मानव संसाधन मंत्री प्रकाश जावड़ेकर के साथ हुई पिछली बैठकों में तय हुआ था कि हर वर्ष आईआईटी और एनआईटी में अतिरिक्त 4 प्रतिशत सीटें प्रति वर्ष छात्राओं के लिए संस्थानों में बढ़ाई जाएंगी। 2020 तक छात्राओं का नामांकन 20 प्रतिशत तक कराने का लक्ष्य रखा गया है। सीबीएसई भी दे रहा प्रोत्साहन : केंद्रीय माध्यमिक शिक्षा बोर्ड भी 11वीं और 10वीं में पढ़नेवाली सिंगल गर्ल चाइल्ड को इंजीनियरिंग की तैयारी के लिए निशुल्क कोचिंग की योजना चला रहा है। ऑनलाइन आवेदनों के आधार पर छात्राओं का चयन कर इन्हें कोचिंग दी जा रही है। इसलिए है समस्या - पुरुष प्रधान करियर विकल्प माना जाता है इंजीनियरिंग - कॉलेजों में सुरक्षा का मसला - कार्यस्थल में मेहनत की अधिकता - इंजीनियरिंग की तुलना डॉक्टरी, शिक्षण को बेहतर विकल्प मानती हैं छात्राएं।