Behind the suicide of an IIT scholar in Delhi, a struggle between new ambitions and old restraints


Manjula Devak and the limits of the Indian woman’s dream.

Her Facebook photos reveal a young woman who liked to travel, dress up, pose and smile. You see her patting her hair and sticking a hip out like the Marilyn Monroe wax statue behind her; in a business suit with San Francisco’s Golden Gate bridge as the backdrop; in a black, leather jacket and pink scarf in Las Vegas; in a skirt at a Delhi mall; in oversize sunglasses and picnic hat at a Mughal monument; and as a glowing bride in a green-and-gold-bordered pink silk saree, dangling gold earrings and armloads of bangles.

Manjula Devak, 28, appeared to be living the Indian dream, but this world of travel and self expression was, in large part, made possible by the considerable academic achievements of a girl who grew up in provincial Bhopal.

Devak’s world expanded dramatically when she was admitted to the prestigious Indian Institute of Technology, Delhi. She became a civil engineer, and in the course of her PhD research, she published papers in three reputed international journals and two books chapters. Three more papers are currently under scrutiny, her supervisor CT Dhanya, told me over email, explaining how Devak was the topper of the water resources engineering master’s class of 2013 at IIT Delhi. “She completed her doctoral research in a short period, while still making significant scientific contributions, which will remain with the research fraternity for decades to come,” said Dhanya.

Devak’s latest paper caught my attention because it explored a topic I follow, climate change. The paper predicted an alarming decrease in recharge water in the Ganga river basin over 79 years between 2021 and 2100, with melting snow spurring a rise in winter precipitation and extreme offseason rain events. The paper was published in an international journal in May – the month Devak hanged herself at her flat in IIT-Delhi.
When the police broke open the door on May 29, they found her hanging from a fan. There was no suicide note, and it wasn’t clear why Devak hanged herself. What was clear was that her death represented the clashing worlds of old and new India, and, so, from celebrating a young woman in the prime of her life, this column must now turn to the darker impulses of society that clash with the dreams of women who strive to break free.

Dowry demands

Outside a morgue in India’s capital, Devak’s father told a Hindustan Times reporter: “It was a mistake to educate my daughter and send her to IIT. I should have saved all the money for her dowry.”

It appeared that behind her achievements, Devak’s life was shackled to India’s darkest traditions. She had been living apart from her husband Ritesh – he and his family were hustled from the mortuary door by Devak’s family – for a year, and her mother accused Ritesh and his parents of demanding a dowry of about Rs 20 lakh. With this money, the Hindustan Times quoted her mother as saying, Ritesh wanted his wife to quit her research and help him start a business. Could Devak not divorce her husband? Her mother had told her to go ahead, but Devak apparently was worried about the effect this might have on her family’s reputation. Why did this young woman on the way to her dream marry him anyway, when she was only 24? Said her father: “Because their horoscopes matched perfectly.”

The exploration of Devak’s life is important because millions of young women now set out on similar journeys, during which many are visited by envy, harassment, hate and worse, particularly from men – within the family and without. Many women overcome, and many succumb. Many women breach boundaries set for them, and some, as Devak’s story indicates, find some barriers too formidable to cross. I do not know what her feelings were about early marriage and horoscopes, but she did agree to the marriage, and in her wedding photos, she is smiling.

Many women achievers live and are, perhaps, happy within the bounds of Indian tradition, but most are either brought up to agree or find they have little choice in the matter. The old India and the new live cheek by jowl. If ambitious Indian women want their freedom and manage to find a path to their dreams, compromise is common. Devak appears to have followed that path.
Women in India

On a recent trip to the US, I was struck by the confident body language of young Indian women who filled the business district of Jersey City, a suburb of New York that teems with Indians. Many of these women feel unshackled and free when they live in the West. My cousin, a single woman who divorced her husband, told me she missed home food and her family back home, but felt the weight of intrusiveness into her personal life. “I come across the ‘loose divorced woman’ attitude even here [in the US] from Indian men mainly,” she said. “It’s diluted and cloaked... but they carry those attitudes everywhere.”

It is not my case that every woman in India is held back – indeed, a minority live life on their own terms – but physical or mental restraints hold back the overwhelming majority.

Few Indian women with Devak’s qualifications and marital status manage to break those restraints. No more than 27% of India’s women work, the lowest among BRICS nations, and in the group of G-20 nations, only Saudi Arabia does worse. The Indian conundrum is that as the numbers of women in schools and colleges rise, the number of those at work drop. Over seven years ending 2012, India’s most educated women dropped out of its workforce at a rate faster than other women. Devak was among the privileged few who defied statistics and tradition, contributed to India’s intellectual heft and pursued her dreams. Her death indicates the limits placed on those dreams.
How IIT-Delhi is coming up with eco-friendly technologies to boost a sustainable environment

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Vanita Srivastava

A nasal filter that can ease breathing problems, a three-wheeler running on hydrogen, and cement that has a lower polluting effect, all have a common target: protect our precarious environment from further degradation. Scientists at Indian Institute of Technology (IIT) Delhi are experimenting with new technologies, eco-sensitive devices and mapping pollutants to make our environment and ecological habitats sustainable. The experiments, besides weaving a multi-disciplinary apparatus, have also boosted the industry-academic collaborations.

"We have seen a drastic change in the environment in the last few years and, if not checked, this can be detrimental. While policy formulation will be done at the government level, there is an urgent need for academic institutions to scientifically analyse the data emanating from the atmosphere and provide the right unbiased inputs to the government," IIT-Delhi director V Ramgopal Rao says. "IIT Delhi is at the forefront of such research." On the eve of World Environment Day, here's a peek into some of the eco-friendly experiments underway in the labs of the institute.

Nasal Filter for Pollution-free Respiration

When Prateek Sharma graduated from IIT-Delhi in 2015, he had a dream — to make a device that could ward off pollutants. The civil engineering graduate had seen his mother suffer from asthma and wanted to build a prototype for resisting the pollutants in the environment.
Sharma, together with a bunch of IIT-Delhi graduates and faculty members of the textiles department, formed a company Nanodean Global to commercialise the. The team used nanotechnology to build Nasofilters that sticks on the nasal orifice. The technology involved assembling millions of small-sized pores to create a thin flexible membrane, which could capture minute particles with high efficiency. If you’re wondering how does one breathe with the nostrils closed, Nasofilters contains a porous substrate, which does surface filtration, it can auto clean itself as one exhales, so there is no breathing resistance.

The device was recently awarded the Startups National Award 2017 by the Technology Development Board. With a price tag of a mere Rs 10, the filter is set to be available in the market by August. The team is also targeting a global market for the filters.

**Sustainable Vehicle 3D Textiles**

Replacing the steel structure of automobiles with a 3D fabric made from glass, carbon and natural fibers can reduce fuel consumption by nearly 25%. That’s the target a team of researchers from IIT-Delhi’s textiles department are aiming at.

Together with the collaboration with companies like Toyota Maruti and Mahindra, the project was sanctioned funding of Rs 10 crore from the textiles ministry in March. “By replacing the stainless steel in automobile with this fabric, there will be a nearly 40% reduction in weight. This will result in a saving at least 25% in fuel consumption,” head of textiles department BK Behra said.

**Hydrogen-powered Vehicles**

Researchers at the Center for Energy Studies (CES) have been working on alternate fuels, mainly hydrogen-powered vehicles for transportation. “Hydrogen fuel has near zero emission and is capable of solving the twin problems of energy crisis and energy degradation.”
Application of hydrogen as transport fuel can improve the air quality in our cities,” says LM Das, one of the principal investigators of the project. The 15 hydrogen-operated three wheelers, developed in collaboration with Mahindra & Mahindra, were used at Pragati Maidan, Delhi from 2012 till May 2017. The research team also developed two hydrogen mini buses as part of the project, which are currently undergoing field trials.

Converting Biomass
For the residents of Delhi, the thick envelop of smog just after last year’s Diwali was debilitating. When the smog refused to budge, analysts reasoned that it was because of the burning of agro-residues in the field of Punjab and Haryana. Burning of paddy straw releases greenhouse gas which disturbs the chemistry of the atmosphere.

The researchers at Centre for Rural Development and Technology have evolved a technology to convert the agricultural residue into biomethane, thus generating energy and silica-rich bio manure, evolving an eco-friendly platform for reducing the pollution. The team has provided technical support to Asia’s first biogas - based power plant based on paddy straw at Fazilka, Punjab. They have also collaborated with the Indian Oil Corporation for setting up a plant in Punjab to convert paddy straw to bio-methane, which can be used as fuel and electricity generation.

Eco-friendly Cement
Researchers from the civil engineering department have collaborated with JK Lakshmi Cement and carried out the first full-scale trial production of a new cement known as Limestone Calcined Clay Cement (LC3) and developed an environment-friendly additive for
concrete that makes it easier to produce high quality cement.

Trial applications have shown that it can reduce as much as 30% CO2 emissions and 20% energy consumption in cement production. Shashank Bisnani, who is coordinating the collaboration at IIT-Delhi, says, "Direct interaction with the industry will also ensure a more practical and hands-on training for the students and researchers, instead of rote learning."

**India-centric Climate Model**
The Centre of Excellence in Climate Modeling, funded by the Department of Science and Technology, will develop an India-centric climate model to address the pressing issues of climate change.

The researchers aim to develop an India-Centric Climate Model (ICCM) through process improvements and region-specific customization that can simulate the regional climate of India and can be used for future climate projections at district level to assess the impacts of climate change on agriculture, health, water resources, and the energy sectors. The ICCM output will be downscaled at ultra-high resolutions for various applications.

**Ganga Health Check**
Dolphin-count can be used as a parameter to check the health of river Ganga. Over the years the number of dolphins has become precarious. But the process of counting the dolphin is arduous and is normally done manually on a boat and the process is not reliable.
June 2

IIT-Delhi will host international convention on India's cultural heritage

Over 1500 students from all over the country and abroad will assemble at Indian Institute of Technology (IIT), Delhi next week to experience India’s rich cultural heritage.
Spic Macay (Society for the Promotion of Indian Classical Music and Culture Amongst Youth) is holding its annual international convention at the IIT from 5 to 11 June, for which the inaugural address will be delivered by Prime Minister Narendra Modi, through video conferencing on 5 June (Monday). The event is expected to give exposure to the participating youth from about the cultural and traditional values which India has preserved in various forms since times immemorial.

Other dignitaries who will be present at the occasion are Railway Minister Suresh Prabhu, Manipur Governor Najma Heptulla and Haryana Governor Kaptan Singh Solanki. The inaugural ceremony will be presided over by Prof V Ramgopal Rao, Director, IIT Delhi. The inaugural performance will given by Girija Devi and T.N. Krishnan.

The idea of organizing the convention, according to the organisers, is to contrive the unique ashram-like atmosphere to leave an impact on the new generation. The mega event will feature performances of classical and folk music and dance, reflecting India’s diverse and rich cultural heritage.

Some of the prominent artistes, who will feature in the event, include Girija Devi (vocal), Shiv Kumar Sharma (Santoor), Begum Parween Sultana (vocal), Vishwa Mohan Bhatt (Mohan Veena), Wasifuddin Dagar (Dhrupad), Ulhas Kashalkar (vocal), Teejan Bai (Pandavani). Other artistes who will be feature during the event include Bhajan Sopori, Anjolie Ela Menon, Dadi Pudumjee, Raghu Rai, Kapila Venu, Ashwini Bhide Deshpande, Umayalapuram Sivaraman, Shri Adoor Gopalakrishnan, T N Krishnan, Alarang Malli, Sudha Rangunathan, Venkatesh Kumar and Guru Ghanakant Bora.

The organization, founded by Kiran Seth, Padma Shri, is working for the promotion of Indian culture for the last 40 years and this is for the first time that its annual convention is being held in the national capital. Spic Macay organizes over 5000 programmes in the 300 chapters in India and 20 chapters abroad. But the seven days at the convention are the zenith of the movement as volunteers and members assemble from all over the world to experience the “mysticism” and “beauty” of India. The schedule of the convention is such that a person is away from the world which is bombarded with too much knowledge and information. A participant gets an outlook of Indian culture, heritage and ethics.

“Activities in the convention range from classical music and dance concerts, performances of folk arts, crafts, intensives, and classic cinema screenings to shramdaan, getting up early in the morning for yoga and eating holistic food,” said Suman Doonga, national head of media and communication, Spic Macay.

A day at the convention starts with getting up at 3.30 am during the very special time called the ‘Brahma Mahurat’, performing ‘yoga’ or meditation for three hours with the gurus. Participants themselves choose from options like Naad Yog, Hath Yog, Dhrupad and Kutiyattam for this. This is followed by the ‘Shramdaan’, with an idea to give back a cleaner place to the hosts than how they gave it to the participants.

The participants would also attend intensives, Hindustani vocal, Carnatic vocal, Dhrupad, Kathak, Bharatanatyam, Kuchipudi, Mohiniyattam, Odissi, Koodiyattam, Hatha Yoga, meditation, crafts, puppetry and theatre. These will be conducted by great masters in various fields. This session goes on in the form of a three hours workshop every day at the convention.

After the intensives the participants get to attend talks by eminent personalities, movie screenings and concerts in the afternoon. In the evening, some of the most distinguished artists perform for the participants. This is paralleled by holistic food which provides the necessary support to the body, mind and soul throughout this wonderful week long journey.

On the penultimate day, participants get a chance to demonstrate what they have learnt from their Gurus on the stage. Then there is an overnight concert which is the culmination of an intense experience created through five continuous
performances of classical dance and music by India’s top performing artists. On the last day, heritage walks are organized to some of the heritage sites.

“We had over 4000 registrations from all across the country and abroad out of which 1500 have been selected who will attend the convention with all their boarding and lodging covered at IIT Delhi. The afternoon programmes and evening concerts will be open for all and an estimated 1000 other people will attend these programmes,” said media coordinator Anshuman Jain.

This IIT Delhi silver medalist topped in ST category of UPSC Civil Services without caring much about reservation


As the jubilant candidates are celebrating their passing of one of the toughest entrance examination- UPSC Civil Services- Avdhesh Meena is busy making plans for his future endeavours as a civil servant. Avdhesh (22), a resident of a small village in Karauli, Rajasthan is the ST(Scheduled Tribe) category topper of the year. But along with topping the category, Avdhesh has secured an All India Rank (AIR) of 32 as well.

An IIT Delhi Civil Engineering silver medalist graduate, Avdhesh has always taken admission in the general category irrespective of the perks he could have enjoyed belonging to the scheduled tribe category. After all, our constitution allows the same to the backward classes. But, Avdhesh never resorted to take benefit of the caste he belonged to and believed in proving his calibre by competing in the general category. Right from ranking 544 in the engineering entrance exam in general category to getting AIR 9 at Indian Engineering Services (IES), Avdhesh has always done it on his merit.
Avdhesh belongs to a small village where people migrate to different cities in search of job options. Thanks to the drought and lack of sufficient potable water, a lot of his village folks have given up on agriculture. Every time he returns to his home town from Delhi, where he was training for the UPSC exams for the last two years, he passion to do something for his village folks was re-ignited. “Although I could have got a good pay package being an engineer, I could have only helped in one aspect for the people in my village. By joining the civil services, I would be able to use the powers that comes along with the post and use my technical knowledge to make better policies for the benefit of people,” said Avdhesh when asked about his motivation to join civil services. Avdhesh plans on making sure that the young people from his village don’t migrate anymore to other cities for job opportunities, leaving their beloved families behind.

However, the journey to be able to join the top services was not all rosy for Avdhesh. Avdhesh often got frustrated when trying to stay focused and believing in what he was doing during his preparatory two years. “You see your friends going out, having fun, making plans which you cannot be part of, and getting jobs in good companies and drawing huge salaries. You start to question your decision. I have encountered this and I know many others too. But, the key is not to think about the result too much, but to believe in keep practicing,” said Avdhesh.

Born in a family with a mother as a homemaker and father who is an office superintendent in the civil engineering department of the Indian Railway, Avdhesh is the first ever person to become an officer. “I never felt any pressure from my family while I was preparing for the examination. On the contrary, my mother shifted to Delhi so that I could prepare properly without thinking about anything else. In times when I used to think of giving up, she was the one who kept it all together,” said Avdhesh. Along with his mother, old Hindi songs and varied genres of music helped him concentrate on his studies, whenever he felt stressed out.

Friends, family and relatives never judged the abilities of Avdhesh at any point during his years of studies and that kept him going. Giving words of wisdom to the future civil services aspirants, Avdhesh signed off saying, “Keep your focus on what you believe and dedicate yourself to the purpose, without thinking much about what you will achieve at the end.”

**June 1**

**IIT director says student was doing well**

[http://indianexpress.com/article/delhi/iit-director-says-student-was-doing-well-4683590/](http://indianexpress.com/article/delhi/iit-director-says-student-was-doing-well-4683590/)

“I spoke with her supervisor, and on the academic front, everything was smooth. She was applying for faculty positions in IITs and NITs,” said V Ramgopal Rao IIT Delhi director.
A final-year PhD student of IIT-Delhi allegedly committed suicide by hanging herself from the ceiling fan of her hostel room.

A day after a final-year PhD student of IIT-Delhi allegedly committed suicide by hanging herself from the ceiling fan of her hostel room, the varsity director said she was doing “very well” academically, and that the suicide seems to be due to some “personal problems”. The deceased, Manjula Devak, a student at the Department of Civil Engineering, was married and used to live in Narmada hostel. IIT Delhi will organise a condolence meeting for the deceased on Thursday.

In a Facebook post, IIT Delhi Director V Ramgopal Rao said that “depression is like any other disease” and urged those suffering from it to seek medical attention. “There will always be ups and downs in life. It happens to every one of us… If you feel low all the time... seek help,” he wrote. Rao called Devak “a young girl with a bright future”, and said the incident was “very very unfortunate”.

Speaking to The Indian Express, he said: “Her suicide had nothing to do with academics. I spoke with her supervisor, and on the academic front everything was smooth. In fact, she was applying for faculty positions in IITs and NITs. She would have submitted her thesis by next month. She was going through personal problems but academically she was doing very well. She had done her MTech from IIT Delhi and was the topper in her batch.” He claimed Devak had even shared her problems with her supervisor.

Rao said the institute had undertaken several initiatives to help those facing depression, including starting a drive where “we’ve asked students to let us know about other students who may need help... However, in cases of personal problems, it becomes very difficult”. Additional DCP (south) Chinmoy Biswal said, “We are waiting for the SDM’s report. We will investigate accordingly.”

**Mistake to send her to IIT, should have saved money for dowry, says father of PhD scholar found dead**

[http://www.hindustantimes.com/delhi-news/it-was-a-mistake-to-send-my-daughter-to-iit-should-have-saved-money-for-her-dowry/story-93KC0b2keKbXRmEHriV7YN.html](http://www.hindustantimes.com/delhi-news/it-was-a-mistake-to-send-my-daughter-to-iit-should-have-saved-money-for-her-dowry/story-93KC0b2keKbXRmEHriV7YN.html)
A 28-year-old research scholar was found hanging from the ceiling fan in her room on campus on Tuesday evening.

PhD scholar Manjula Devak committed suicide on IIT Delhi’s campus. Her mother Seema (left) accused the son-in-law of forcing Manjula

“It was a mistake to educate my daughter and send her to IIT. I should have saved all the money for her dowry,” said the father of a PhD scholar who was found hanging from a ceiling fan on the Delhi campus on Tuesday evening.

Outside the AIIMS mortuary on Wednesday afternoon, 28-year-old Manjula Devak’s parents waited for doctors to complete the post-mortem and take their daughter’s body home. Less than 24 hours ago, at around 7.38pm, police had broken open the door of Manjula’s flat at Nalanda apartments at Indian Institute of Technology (IIT) to find the research scholar hanging from the fan. There was no forced entry, suggesting that prima facie it was a suicide. She was last seen on the campus on Monday afternoon and had last spoken to her mother on Sunday.

Though the family accused Manjula’s husband Ritesh of demanding Rs 20-25 lakh dowry, they are unsure what prompted the young woman to end her life on Tuesday. Her parents refused to let Ritesh and his relatives stand outside the mortuary.

Hindustan Times could not speak to Ritesh or his family. The police too have launched a preliminary inquiry and are yet to register an FIR. The allegations levelled by Manjula’s family are yet to be established.

The couple’s marriage had been arranged in 2013 but they had been living separately for over a year now. “We got our daughter married early because their horoscopes had matched perfectly,” her father said.

Manjula’s mother Seema accused Ritesh of forcing her to quit her studies and start a business with him. “After quitting jobs in Delhi and Mumbai, Ritesh stayed with her at the campus apartment for about a year,” Seema told Hindustan Times.

“He was troubling Manjula to get around Rs 20-25 lakh to start his business. I asked my daughter if she wanted a divorce but she was worried about the family’s reputation,” said Seema, who works at a polytechnic college in Bhopal.

Manjula had joined IIT Delhi in 2011. She completed her MTech (civil engineering) and was pursuing her PhD. Police said a sub divisional magistrate is enquiring into Manjula’s death and he will summon her husband and in-laws for investigation.

One of Manjula’s colleagues, who did not wish to be identified, refused to believe social media theories that academic pressure led to her suicide. “Her PhD guide was very happy with her. She has published four articles till date. We know there is academic stress but Manjula was doing fine.”
Police are yet to register an FIR. An SDM inquiry is ordered if a woman dies within seven years of her marriage. Additional deputy commissioner of police (south) Chinmoy Biswal said, “We are awaiting the SDM’s report.”

**Madurai IIT में बीफ पार्टी आयोजित करने वाले PhD स्कॉर्लर पर हमला, अंख फोड़ी**


आईआईटी मद्रास बीफ फेस्ट आयोजित किये जाने का मामला सामने आया है। बीफ पार्टी का आयोजन करने वाले छात्र पर छात्रों के एक गुट ने हमला किया। इस हमले में पीएचडी स्कॉर्लर छात्र घायल हो गए हैं। छात्रों ने केंद्र सरकार के पशुबाजार में कट्टे के लिए जानवरों की खरीद-बिक्री के विरोध में इस फेस्टिवल आयोजित किया था।
रविवार रात आईआईटी में करीब 80 छात्रों ने इसमें हिस्सा लिया था। इस बीच दक्षिणपंथी संगठन के छात्रों ने आयोजन स्थल पर पहुंचकर मारपीट की। इसमें एयरोस्पेस इंजीनियरिंग के पीएचडी के छात्र आर सूरज बुरी घायल हो गया। सूरज पर हमला रात करीब 1 एक बजे हुए जब वह केंद्री में मौजूद था। सूरज बीफ फेस्ट के मुख्य आयोजक में से एक था।

दक्षिणपंथी संगठनों के छात्रों ने सूरज को बुरी तरह पीटा जिससे उनकी आंखों के पास गंभीर चोटी आई। सूरज को पास के नेत्र अस्पताल में भर्ती कराया गया है। इस मामले पर अभी तक आईआईटी प्रशासन ने कोई भी प्रतिक्रिया नहीं दी है। बता दें कि सूरज समेत बीफ फेस्ट आयोजित करने वाले सभी छात्र आंबेडकर-पेरियार सकर्ल के हैं।

मैकेनिकल इंजीनियरिंग के फाइनल ईयर के छात्र और बीफ फेस्ट का प्रमुख आयोजक अभिनव सूयार्वे ने बताया कि सूरज की दांयी आंख में गहरी चोट आई है। इस मामले की शिकायत आईआईटी के डीन से की हैं।

Cattle slaughter row: IIT-Bombay, IIT-Madras students protest against assault on Sooraj for participating in beef festival

http://www.firstpost.com/india/cattle‐slaughter‐row‐iit‐bombay‐iit‐madras‐students‐protest‐against‐assault‐on‐sooraj‐for‐participating‐in‐beef‐festival‐3503749.html

A day after a research scholar of Indian Institute of Technology (IIT), Madras was assaulted by a group of students for participating in a ‘beef festival’ on the campus, students of IIT Bombay and IIT Madras protested on Wednesday.

A peaceful march was held inside the campus of IIT Bombay where students chanted slogans against the increasing “Hindutva vigilantism”. With placards in their hands demanding justice for R Sooraj, the protesting students said the march was a spontaneous reaction to the increasing incidents of violence happening on educational campuses in the country in recent times, reported Hindustan Times.

The protest was unusual as IIT-Bombay students generally stay away from contentious socio-political issues, Hindustan Times reported.

A similar protest was organised outside the campus Indian Institute of Technology-Madras (IIT-M) on Wednesday condemning the assault on Sooraj.
Members of organisations like the Democratic Youth Federation of India (DYFI) and Students Federation of India (SFI) gathered outside IIT-M and shouted slogans.

They also shouted slogans against the central government. Police later arrested the protestors.

Members of the Thanthai Periyar Dravidar Kazhagam also held a beef eating protest outside IIT-M.

Meanwhile, police on Wednesday said they had registered a case against eight persons in connection with the attack on Sooraj. No arrests have been made.

Sooraj was allegedly attacked by a group of students affiliated to the Rashtriya Swayam Sevak Sangh. The scholar received serious injuries after he was allegedly thrashed by around six fellow students for participating in a beef fest. Sooraj suffered a major injury on his right eye and was admitted to a hospital.

The beef-eating festival was organised in protest against the central government’s new rule banning sale of bovines for slaughter.

Earlier, on 27 May, students of IIT-BHU and BHU, who were peacefully protesting against the brutal attack on Dalits in Saharanpur during Uttar Pradesh chief minister Yogi Adityanath’s visit, were allegedly attacked by the police, The Indian Express reported.

**Polluting 'Living Ganga' is Like Culpable Homicide: IIT-Kharagpur Professor**


A study by IIT-Kharagpur has found that the Ganga flowing through the ghats of Varanasi is alarmingly unsafe for bathing.

The institute is planning to alert the concerned union ministries to put some check on people using river for their daily chores.

Speaking to News18, Professor Abhijit Mukherjee, Department of Geology and Geophysics, said, “The Allahabad High Court has ruled that River Ganga is a living entity. The way we are polluting the river, it may be count as culpable homicide.”

“Our study shows that river water is absolutely unsuitable for bathing, lest drinking. Living Ganges need our help so that she can breathe to survive. Every day lakhs of people and pilgrims bathe in River Ganges ignoring their health safety. This is highly unsafe and there is an urgent need for a stern measures to stop this practice unless cleaning of river ends,” he said.

Study revealed that the Biological Oxygen Demand (BoD) ranges in river Ganges is between 3 to 5 mg/l for any time in the day, along with about 16 mg/l of total organic carbon (TOC) and 31 mg/l sulphate concentrations in the water, making the river water toxic. The pollution level peaks as the river passes Assi Nala.

“The sewerage discharge canals and the crematoriums is continuously polluting the river. Half-burnt remains of human body parts float around the Harish Chandra and Mani Karnika ghat maha-samsans. The Assi Nala, one of the main city discharge canals dumps a huge volume of waste water to the river, making the holy river as noxious as possible,” he said.

Concerned, Mukherjee along with a team of expert are constantly monitoring the quality and collecting water samples of the river in 12 strategic ghats at 16 locations on a weekly basis.

In addition, they have installed a real-time sensor that gives water quality in the river every 15 minutes.
“We have also installed high-resolution, radar-based sensors that measures the Ganga water level for drop and flood in the dry and monsoon seasons. A groundwater sensors was also put in place to understand how the Ganga river water is influencing the groundwater of Varanasi. The idea is to study the safety and suitability of the Ganga water for human use along the stretch of Varanasi in a temporal basis,” Professor Mukherjee said.

**IIT-Kharagpur develops technology to make pollution-free biofuel**

Researchers at IIT - Kharagpur have developed a technology that has the potential to make biofuel manufacturing cheaper, quicker and free of pollution.

The 'soil-to-soil' manufacturing technology developed at the P.K. Sinha Centre for Bioenergy at IIT - Kharagpur is in the process of being patented.

Researchers say bioethanol can be produced from various naturally available ligno-cellulosic components, but to do so the biomass needs to be treated chemically and in some cases physico-chemically.

Because of chemical treatment, the process contributes to polluting the environment.

"We have replaced this chemical treatment with enzymes which degrade the lignin specifically, thereby making the manufacturing process pollution-free," said Rintu Banerjee, Professor of Department of Agricultural and Food Engineering at the P.K. Sinha Centre for Bioenergy.

"Also unlike the chemical treatment, here the waste product is pollution-free and hence utilising the residual biomass to make organic fertiliser is possible," Banerjee said.

The 'National Policy on bio-fuel' targeted 20 per cent blending of biofuel with petrol by 2017.

With the government expecting the bio-fuel business in India to touch Rs 50,000 crore by 2022, this new green technology with lesser manufacturing cost and time could become a game changer, the researchers said.

"The technique that we are suggesting will ensure relatively quicker production of bio-fuel and ensuring that the process is completely green, not creating any secondary pollution. This, we feel can change the future of bio-fuel manufacturing in India and make it more cost effective," said Banerjee.

This project is funded by the Ministry of Petroleum and Natural Gas, Department of Science and Technology and the Ministry of Human Resource Development.

**IIT-Kanpur extends Rs 25-lakh seed funds to job hunt startup in UP**

Supporting the central government’s Startup India project, the Indian Institute of Technology in Kanpur (IIT-K) pumped in Rs 25 lakh as seed funding in rural job search startup Eezy Naukari.
The Kanpur-based company aims to help job seekers in rural areas find work opportunities in the cities across India. The startup was set up by Rahul Patel, who is an alumnus of IIT-Guwahati, along with co-founders Nipun Sareen, Hemant Verma and Mohit Sachan in 2016.

It has grown over the years to increase its presence to 500 villages in four states and handles the profiles of over 15,000 job seekers. The company has been instrumental in the recruitment of candidates in over 20 companies including Snapdeal, Oyo, Glam Studios, Cityfurnish and Amazing Security.

“We are excited about Eezy Naukari, which has the potential for creating a lot of impact by leveraging information technology for generating employment opportunities for the unemployed youth in rural Uttar Pradesh. Funding such high impact social startups aligns well with IIT Kanpur’s INVENT program which has already made investments in six start-ups to the tune of Rs 1.5 crore,” said Dr Sameer Khandekar, Associate Dean, Innovation and Incubation, IIT-Kanpur.

According to a company representative, candidates have found jobs across various sectors including the healthcare, sales, security and hospitality segments based on their educational qualifications.

Access to a variety of job opportunities is a major struggle in rural India, which continues to face digital illiteracy, poor internet connectivity, lack of career counselling, exploitation by local consultants and lack of adequate relocation support.

Companies also face a hard time searching for a desirable candidate with the correct profile. Online job portals tend to have junk database with little background verification and unreliable resumes, thereby, making local hiring costly and difficult.

Eezy Naukri, for its part, has a simple solution for all such problems. The startup tries to resolve the issue by providing employment opportunities at the doorstep of job seekers, besides offering local guidance and a common recruitment platform with a verified database.

A company looking for candidates has to initiate the sourcing process on the client’s web app, the request for which is sent to central server. Information regarding the selected candidates is sent to the local guide or the Naukari Mitra’s mobile app before contacting the candidates.

For people in rural areas, it is easier to interact with a local person instead of using the digital medium. It is for this reason that the Naukari Mitra app plays a major role in the process of job search. Local guides assisting in the process include entrepreneurs, social workers and teachers who are able to contact the job seekers personally.

**IIT Ropar, CSIR-CSIO join hands for academic exchange**

http://indiatoday.intoday.in/story/iit-ropar-csir-csio-join-hands-for-academic-exchange/1/968350.html

The Indian Institute of Technology (IIT) here and the Central Scientific Instruments Organisation (CSIO) today entered into a memorandum of understanding (MoU) for academics and advancement in science and technology.

The scope of this MoU also involves sharing of expertise, domain knowledge and available facilities in mutually agreed research areas, including physics, photonics, optics, chemistry, biomedical, material science and engineering, nanoscience and nanotechnology, electronics, computation and mechanical engineering.

Sarit K Das, director IIT Ropar, and R K Sinha, Director CSIR-CSIO, Chandigarh, have signed the MoU on behalf of the IIT Ropar and the CSIO respectively.
Speaking about the association with the CSIO, Das said, "This MoU will facilitate exchange of staff and students towards co-supervision of undergraduate, postgraduate and Ph.D. theses."

Also for participation in research thus promoting interaction among the scientists, professors and research scholars of both the organisations, he said.

This will help in conducting joint research programmes, including externally funded schemes, consultancy activities and will also facilitate collaboration in teaching under the academy of scientific and innovative research, Das said.

The CSIO, a constituent unit of the Council of Scientific and Industrial Research (CSIR), is a national laboratory dedicated to research, design and development of scientific and industrial instruments.

It is a multi-disciplinary and multi-dimensional apex industrial research and development organisation in the country to stimulate growth of instrument industry in the country covering wide range and applications.

The IIT Ropar is one of the eight new IITs set up by the Ministry of Human Resource Development in 2008.

The institute has been ranked third among the new IITs in overall and fifth in engineering category in the NIRF rankings 2017, announced by the HRD Ministry, Prof Das claimed.

**JEE advanced 2017: ORS sheets available for download at jeeadv.ac.in**

[see](http://indianexpress.com/article/education/jee-advanced-2017-ors-sheets-results-available-for-download-at-jeeadv-ac-in-4683061/)

**JEE advanced 2017: A total of 2.21 lakh students have cleared the JEE Main to be eligible to contest for IITs and NITs in the country.**

JEE advanced 2017: The Optical Response Sheet (ORS) for Indian Institute of Technology Joint Entrance Exam (IIT JEE) advanced 2017 has been released today at 5 pm. Students who have appeared for the exam can download their ORS from the official website (see steps below to know how).

JEE advanced 2017 was conducted on May 21. A total of 2.21 lakh students have cleared the JEE Main to be eligible to contest for IITs and NITs in the country. Paper 1 of JEE advanced was held from 9 am to 12 pm while the second paper for JEE Advanced 2017 was held from 2 pm to 5 pm. The advanced paper was found to be of moderate difficulty.

**Steps to download JEE advanced 2017 OR sheets:**

– Go to the official website for JEE advanced 2017 (jeeadv.ac.in).
– Click on the notification that says “Online display of ORS will be available on 31-05-2017, 17:00 IST onwards (sic)”.
– Login to the site.
– Enter your details in the fields provided.
– Download the sheets and keep a copy for further reference.