IIT- Delhi files 150 patents in 2019, highest ever in a year


“Both national and international patents have been filed by Foundation for Innovation and Technology Transfer (FITT), an industry-interface organisation at IIT Delhi”, said the premier engineering institution in a statement.

From bulletproof clothing enabling transmission and reception of electronic signals to production of liquid hydrocarbons from plastic waste, the Indian Institute of Technology- Delhi on Thursday said it filed 150 patents in 2019, the highest ever in a year.

“IIT-D’s Dr Anil Wali cited some of the key innovation, which include a process to produce fuel from e-waste, a novel wearable device to measure pulse pressure, bullet-proof clothing that enables transmission and reception of electronic signals, a water based method to produce anti-coagulant agent Warfarin, a process to produce fuel from e-waste, a redesigned elbow implant that reduces bone loss during implantation, production of liquid hydrocarbons from plastic waste, a method to improve shelf-life of raw milk, a method to improve (up-link time synchronization and data rate) 5G wireless communication and a device to mitigate indoor air pollution.

He also emphasised that FITT’s mission is to become an effective outreach and interface platform to enable innovations, promote commercialization of science & technology and encourage research spin-offs.
90 Projects Approved For Prime Minister's Research Fellowship December 2019


The Ministry of Human Resource Development (MHRD) has released the final list of applicants selected for the Prime Minister's Research Fund (PMRF) for December 2019.

The Ministry of Human Resource Development (MHRD) has released the final list of applicants selected for the Prime Minister's Research Fund (PMRF) for December 2019. The Ministry has selected total 90 projects across disciplines. PMRF scheme is open to applicants from Indian Institute of Science (IISc), Indian Institutes of Science Education & Research (IISERs), Indian Institutes of Technology (IITs) and Central Universities which are in the top 100 of NIRF ranking.

Among the institutes, maximum number of projects approved under the scheme is from IIT Bombay. 25 projects from IIT Bombay will receive the PM Research Fund for December 2019 session.

The second place is jointly held by IIT Madras and IISc Bangalore with 14 approved projects from each.

9 projects from IIT Kanpur and IIT Delhi each, 7 from IIT Kharagpur, and 6 from IISER Pune have been approved.

IIT Hyderabad has 2 approved projects and one projects each from IISER Thiruvananthapuram, IISER Tirupati, IIT Roorkee, and IIT Bhubaneswar have been approved. '

Under the PMRF scheme for PMRF December 2019, applications were invited from students who have completed, or are pursuing, the final year of four year undergraduate or five year integrated M.Tech or five year integrated M.Sc. or five year undergraduate-postgraduate dual degree
programmes or two year M.Sc. programmes in Science and Technology streams from IIEST/IISc/IITs/NITs/IISERs and centrally funded IIITs or any other Institute / University recognized in India.

The selected fellows will be offered admission to Ph.D. programme in one of IISc/IISERs/IITs and Central Universities. They will also receive a fellowship of Rs.70,000 per month for the first two years, Rs.75,000 per month for the 3rd year, and Rs.80,000 per month in the 4th and 5th year.

Apart from this, a research grant of Rs. 2 lakh per year will be provided to each of the Fellows for a period of 5 years to cover their academic contingency expenses and for foreign/national travel expenses.

**Amitabha Bagchi wins DSC prize for literature**


Amitabha Bagchi, a soft-spoken, pony-tailed Associate Professor of computer science at IIT, Delhi, has won the prestigious DSC prize for South Asian Literature for his evocative novel “Half The Night is Gone”, a story that explores different dimensions of religion, literature and Indian society in a way that few contemporary authors have done in recent times.

In a post-colonial saga that unfolds over three generations, Bagchi explores human relationships, the intertwining of fates and cultures, paying amazing attention to details. He poignantly captured the turmoil of our time and explored the country's diverse aspects from the viewpoint of his protagonist, Vishwanathan, who confronts the wreckage of his own life while seeking to make sense of the new India.

The winner of the DSC prize was announced at a special Award Ceremony at the IME Nepal Literature Festival in the picturesque city of Pokhara on December 16. Pradeep Gyawali, Minister for Foreign Affairs of Nepal, along with Surina Narula, co-founder of the DSC Prize, presented the winner's trophy to Amitabha Bagchi.

The six shortlisted authors and novels in contention for the DSC Prize this year were: Amitabha Bagchi: Half the Night is Gone (Juggernaut Books, India); Jamil Jan Kochai: 99 Nights in Logar (Bloomsbury Circus, Bloomsbury, India & UK, and Viking, Penguin Random House, USA)l Madhuri Vijay: The Far Field (Grove Press, Grove Atlantic, USA); Manoranjan Byapari: There's Gunpowder in the Air (Translated from Bengali by Arunava Sinha, Eka, Amazon Westland, India); Raj Kamal Jha: The City and the Sea (Hamish Hamilton, Penguin Random House, India); and Sadia Abbas: The Empty Room (Zubaan Publishers, India)

The five-member international jury panel for the DSC Prize 2019 and the shortlisted authors did a brief reading from their shortlisted novels.

Bagchi didn't mince words in commenting on the current spate of protests in India on Citizenship act and their handling by the Government. “A writer's cannot remain immune to what's happening
around him — and what’s taking place in India is unfortunate. Our democratic values are being challenged each and every day,” he told The Pioneer.

Speaking on behalf of the jury, Jury Chair Harish Trivedi, said, “For the five jury members located in five different countries, reading 90 novels in 90 days was a transformative experience.

Over the months, we arrived at a diverse and inclusive longlist of 15 and a shortlist of 6 novels, representing the polyphonic richness of the region. It is out of this collective literary churning that there has emerged a winner whose work subsumes many languages and sensibilities.”

Ajit Baral, Director of the IME Nepal Literature Festival, made the opening address and welcomed the DSC Prize to Nepal and the city of Pokhara.

Congratulating the winner, Surina Narula, co-founder of the DSC Prize said, “My heartiest congratulations to Amitabha Bagchi .

All the shortlisted books this year deal with diverse and powerful themes and there were three debut novels and a book about Afghanistan. It is a tough decision as always for the jury to choose a winner from these exceptional entries. We are delighted to be invited to give the award this year in Nepal and I hope this encourages more publishers from Nepal to enter their books for the prize next year.

The DSC Prize has now completed nine years and it is heartening to see the increased interest amongst readers across the world in South Asian life and culture through these books.”

This year’s international jury panel included Harish Trivedi, (Jury Chair) former Professor of English at the University of Delhi who has written extensively on colonial and post-colonial literature, Jeremy Tambling, former Professor of Literature at the University of Manchester with an interest in present and past literatures, in critical theory, and in film, Kunda Dixit, Editor of the Nepali Times newspaper in Kathmandu, and author of several books on the South Asian region, climate change and technology, Carmen Wickramagamage, Professor of English at the University of Peradeniya, Sri Lanka, whose work has focused on feminism, postcolonial theory, and 'Third World' women writers, and Rifat Munim, a bilingual writer, essayist, and translator, and the literary editor of Dhaka Tribune in Bangladesh, with special interest in South Asian English writing.

While no author from Nepal submitted his books to the jury panel, but the way people thronged the venue of the Nepal Literature Festival has made the organizers hopeful that soon their authors would be competing with the best in south East Asia.

“We have some fine talents, but they have not received proper attention because their works have not been translated didn't English,” said

Started in 2011, the Nepal Literary Festival Festival aspires to be a neutral platform where writers, artists, filmmakers, singers, and intellectuals from South Asia come together to discuss varied issues pertinent to the times.
The annual festival is organized by the Bookworm Foundation, a non-profit organization dedicated to the world of words, consisting of publishers, journalists and writers who are passionate about expanding the public sphere and creating democratic spaces in Nepal and beyond.

IIT Delhi placement – 1st Phase concludes; crosses all benchmarks of previous years with close to 1000 offers


The first phase of the placement season in IIT Delhi, which commenced on December 01, 2019, ended on a robust note with placement offers crossing 960 (some students have received multiple job offers) including pre-placement offers.

The first phase of the placement season (December 1-13, 2019) recorded highest numbers in terms of selection of students and crossed all benchmarks of the previous years. Around 400+ organisations have registered for the recruitment season for this academic year and are offering 600+ job profiles.

Prof V. Ramgopal Rao, Director, IIT Delhi said: “We are happy to see a robust placement season this year. IIT Delhi has interacted with over 200 industry partners in the last five years on a variety of research topics. There is an appreciation by industry on the nature of research that happens at IIT Delhi and the highest quality of training we impart to our students. This is a testimony of the trust that they have in us.”

**Sectorial trend data for the first phase of the placement season (December 1-13, 2019):**

Prof S. Dharmaraja, Head, Office of Career Services, IIT Delhi: “In the upcoming second phase also we are hopeful of increasing the placement numbers and achieving impressive statistics.”

A hike of around 10% has been witnessed in total number of job offers up to now received by the campus and a hike of 8% in pre-placement offers is witnessed this year over the last year. Students have bagged 187 pre-placement offers up to now, which is recorded highest ever from the past years from various domestic and international organisations.

Students have been placed in the sectors of their choice and the recruiters also made it to select the best minds of the Institute. The efforts of the entire placement team including staff, student coordinators and volunteers coupled with the industry players across multiple domains resulted in this steady increase of job numbers.

The second phase of the placement season in IIT Delhi will start in the first week of the January and end in May 2020.

IIT MTech fee hike: HRD ministry defers decision

While the ministry had in September announced the decision by the IIT council to implement the fee hike, the issue will again be taken up in the next meeting.

The HRD ministry has deferred the decision to hike the MTech fee in the IITs for further discussion on the issue.

While the ministry had, in September, announced the decision of the IIT Council that it will implement the fee hike, the issue will again be taken up at the next meeting.

The development comes against the backdrop of protests by Jawaharlal Nehru University (JNU) students against a recent fee hike.

Human Resource Development (HRD) Ministry officials, however, did not comment on the reasons behind the decision being put on hold.

The next council meeting date has not been decided yet. IIT-Delhi Director V Ramgopal Rao had said the MTech programmes at the IITs recorded a dropout rate of over 50 per cent as the students treated the courses as a “stop-gap arrangement” till they landed a job or cracked a competitive exam.

The IIT Council, led by HRD Minister Ramesh Pokhriyal “Nishank”, had approved a proposal to hike the fee for the masters programme and bring it to the level of the BTech courses in September.

The decision was taken on recommendations of a three-member committee on reforms on the MTech programme in the IITs.

The IIT Council is the highest decision-making body of all the 23 IITs.

**IIT Delhi to offer Bachelors in Design from next year to target tech-driven creative professionals**


*The National Design Policy released in 2011 recommends the establishment of design departments in all the IITs leading to the increasing number of design courses at these institutes*
Hardcore technical skills may come under the purview of engineering education, but with the change in market dynamics, design aesthetics is a key requisite to give shape to tech-enabled products. "This may explain why the IITs are offering a 4-year Bachelors in Design (BDes) course. Evidently, there is a huge demand for designers who can work along with engineers," says Ramgopal Rao, director, IIT Delhi which is planning to start a Bachelors in Design (BDes) programme from academic session 2020-21. Design education, however, is not new to the IITs. "Several IITs including those in Bombay, Delhi, Guwahati, Kanpur, Madras and Hyderabad have been offering master's course in design since the 80s and 90s. Of these institutes, IIT Guwahati, IIT Bombay and IIT Hyderabad have design programmes at the UG level."

"The National Design Policy released in 2011 recommends establishment of departments of design in all the IITs, which accounts for the increasing number of design courses in these institutes," says PV Madhusudhan Rao, head, Department of Design, IIT Delhi, where the Master's in Design programme admits students with bachelor's degrees in engineering, design and architecture. Admission to the course is based on the ranks in CEED (Common Entrance Examination Design) exam conducted by the IITs and IISc.

"Since it is a creative and interdisciplinary domain, the design programmes at the IITs offer a wide scope," says D Udaya Kumar, head of Department of Design, IIT Guwahati, where design courses were started in 1998. Presently, the institute's faculty is drawn from multidisciplinary fields such as product design, human factors engineering, graphic and information design, internet technologies, multimedia etc. Keeping in view the market demand, the institute for its BDes programme, has added courses including Interaction Design, User Interface/UI)/User Experience (UX) Design, Usability Engineering, Tangible Interface that are all tech-driven.

**IIT Delhi scientists develop tech to recycle e-waste, recover gold & precious metals**


Researchers at Chemical Engineering Department, Indian Institute of Technology-Delhi (IIT-Delhi) have developed an integrated method for efficient recycling of e-waste to recover precious metals like gold and silver.

The technology, developed by Professor K. K. Pant of Chemical Engineering Department, IIT Delhi carries out laboratory scale pyrolysis of e-waste followed by recovery of individual metals. It can solve the problem of e-waste disposal as well as generate revenue from e-waste through fuel production and metal recovery. The technology has been developed under the Waste Management program of the Department of Science & Technology (DST).

Pyrolysis converts e-waste into a liquid, gaseous, and solid product. The liquid and gaseous product can be used as fuel while metals are recovered from solid residue. The extraction of metals is being carried out by hydrometallurgy using different leaching agents and, finally, electro deposition will be used if required for individual metal recovery.
This technology – which will be useful for the waste management sector, electrical, and electronic industries, and metal producing industry – is under pilot scale testing and validation. The team is further targeting a design of 50 kg/day capacity e-waste recycler.

A patent for the technology has been filed and the researchers are working on the recovery process of individual metals (Cu, Ag, Au) and technology transfer to industries. The technology holds great market potential owing to its unique feature of the integrated approach of complete recycling of e-waste, and recovery of precious metals without causing any damage to the environment.

E-waste generated worldwide in 2016 was 44.7 MT and is expected to grow to 52.2 MT by 2021. India is the fourth largest e-waste producer in the world, generating 2 MT in 2016. The total value of material that can be recycled from global e-waste generated in 2016 was Rs 4,670 billion.

However, there is no viable option for complete recycling of e-waste and therefore there is a need for the development of technology which will be eco-friendly and economical. The risk associated with e-waste recycling is the presence of hazardous substances such as antimony, lead, cadmium, arsenic, brominated flame retardants and so on. The developed process can minimize hazardous effects due to these substances.

IIT Delhi campus placement: Job offers cross 750 mark in the first five days


The first phase of the placement season in IIT Delhi, which commenced on December 01, 2019, has witnessed 700+ unique selections (some students may have multiple job offers) in the last five days. The total number of job offers to IIT Delhi students stand over 750 (including 186 pre-placement offers) as on date.

Many top companies from across the world are visiting the campus for recruiting the best brains from various undergraduate, post graduate and PhD programmes.
Overview of placement statistics
Total Job offers received - 782
Number of domestic offers - 767
Number of international offers - 15

IIT Delhi is becoming a preferred destination for recruiters across industries year on year owing to its diverse academia and culture.

Prof V. Ramgopal Rao, Director, IIT Delhi said, “I am happy to note that IIT Delhi is becoming a preferred destination for recruiters. We are also promoting entrepreneurship activities on the campus. Students are also availing the deferred placement options for working on their startups. Overall, we are happy with the placement offers our students are receiving.”

Sectorial Trend Data for placements December 1-5, 2019 is represented in the following table and the pie chart:

Sectorial Trend Data for Placements- December 1 to 5, 2019

<table>
<thead>
<tr>
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<td>Analytics</td>
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<tr>
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<td>Core</td>
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<td>IT</td>
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<td>Management</td>
<td>60</td>
</tr>
<tr>
<td>Others</td>
<td>101</td>
</tr>
</tbody>
</table>
While speaking about the ongoing robust placement season, Prof. S. Dharmaraja, Head, Office of Career Services, IIT Delhi said, “This year, our optimism of positive steady trend of placements is going well and by the end of this placement season, we are hopeful of breaking all previous year records.”

IIT Delhi students of all the streams are receiving good offers. Some of the giant players, who have made domestic job offers to the students include Microsoft with 30 offers including 2 international offers, Societe Generale - 13 offers, Mastercard - 11 offers, Standard Chartered - 10 offers and many more.

International offers have been made by major players like TSMC Taiwan, Microsoft, Denso Japan, Uber, Fast Retailing etc.

The current placement season will span from Dec 2019 to May 2020.

**IIT Delhi Selects Indian American Entrepreneur Mohit Aron for 2019 Distinguished Alumni Award**

San Jose, Calif.-based Cohesity Nov. 2 announced that Dr. Mohit Aron, founder and chief executive officer of the company, has received the Distinguished Alumni Award from the Indian Institute of Technology Delhi.

Aron was selected for the award based on outstanding contributions made in entrepreneurship, including founding Cohesity, co-founding Nutanix and being recognized as “the father of hyperconvergence,” according to a news release.

“I am honored to be recognized by IIT Delhi for such a distinguished award. My experience at IIT Delhi has shaped who I am today. I continue my relationship with the IIT community as a way of giving back and hoping to inspire students to take on the big challenges that can help change the world,” the Indian American entrepreneur said in a statement.

“IIT Delhi is a tremendous asset to India and the world as a foundation for innovators and entrepreneurs. At IIT, I learned to persevere in the face of challenging work. I also realized how important it is to keep learning throughout life, and that is why I introduced a cultural guideline for all employees at Cohesity: be humble, keep learning,” Aron added.

Aron received his bachelor of science in computer science from IIT Delhi in 1995 and continued his studies at Rice University where he received a doctorate in computer science with a focus on distributed systems.

Aron went on to serve as one of the lead developers on the Google File System. He co-founded Nutanix in 2009 and started Cohesity in 2013.
Under Aron’s leadership, Cohesity is disrupting the data management market, employs more than 1,300 people globally, is recognized as a leader by independent research firms and organizations globally, and was recognized as a “technology pioneer” by the World Economic Forum.

“Dr. Aron was selected because of his impressive accomplishments as an entrepreneur and innovator, founding two successful companies, Nutanix and Cohesity,” said V. Ramgopal Rao, director of IIT Delhi. "His drive, vision, and focus on taking on big challenges that can improve our lives set a stellar example for our students, alumni, and entrepreneurs everywhere."

Added Sanjeev Sanghi, dean of alumni affairs and international programs at IIT Delhi: “This year’s recipients of the Distinguished Alumni Award continue to represent the rich tradition of entrepreneurship that exists among IIT Delhi alumni. Over 50 percent of the Indian or Indian-origin unicorn founders are graduates of IIT Delhi.”