“The greatest glory in living lies not in never falling, but in rising every time we fall.”
- Nelson Mandela
IIT Delhi collaborates with DBSE to design Robotics and Automation curriculum


Delhi Board of School Education (DBSE) signed an MoU with I-Hub Foundation for Cobotics (IHFC), the Technology Innovation Hub of IIT Delhi to design Robotics and Automation curriculum for the Schools of Specialized Excellence (SoSE) under the Delhi government.

IIT Delhi will design a curriculum to train students in the different aspects of Robotics and Automation that will enable them to pursue higher education and diverse career pathways in the field. In this regard, the Delhi Board of School Education (DBSE) signed an MoU with I-Hub Foundation for Cobotics (IHFC), the Technology Innovation Hub of IIT Delhi to design a Robotics and Automation curriculum for the Schools of Specialized Excellence (SoSE) under the Delhi government.

“It is important that schools now start offering courses and syllabus, which are beyond just the regular subjects. The future will appreciate individuals who come with an adept skill set in areas of new generation technologies like Robotics, Automation, ML, AI, which is going to be the norm of functioning for every industry in the near future,” Himanshu Gupta, Director of Education, DBSE said.

The SoSE has put IHFC in charge of designing the syllabus, which will be more progressive and industry relevant in terms of Robotics and Automation that includes Mechanics, Electronics, Robotics programming IoT etc. The whole idea is to curate teaching material and content for ease of learning, claims IIT-Delhi.

IHFC will collaborate with industry partners and players to create an industry-relevant curriculum that will render SoSE students employable in aspirational job roles after four years of specialised study in the domain of Robotics and Automation. It will also support by lending the expertise of industry partners, academia partners and IHFC alumni in designing experiential learning opportunities for the students such as internship, apprenticeship, guest lectures, masterclasses, visits and projects, which will contribute to an immersive and hands on learning for the students.

“It is important that from a young age itself, students are given exposure to a set of learning skills, which will make them more adept to face the technically advanced industry and the world tomorrow. We want that all should be skill ready to face the technologically advanced world that we are going to be living in, in the near future,” Dr SK Saha, Professor at IIT Delhi and Project Director, IHFC said.

IHFC will also be actively involved in the identification, on-boarding, and capacity building of teachers as well as support and mentor them through this transition.
Drone light show: IIT Delhi startup now performs at Djibouti I Day


The IIT Delhi incubated drone startup — Botlab Dynamics — which had lit up Delhi skies this Beating Retreat with a dazzling 1,000-drone light show is now being asked to conduct similar events abroad too. It recently organised a drone show at Djibouti independence day, June 27.

“Proud to share that IIT, Delhi, based startup Botlab Dynamics added colours to Djibouti’s sky with a drone light show during their Independence day celebrations. Indian drone startups have started taking small but firm steps on exporting products and services,” Drone Federation of India president Smit Shah said on social media.

A startup of two young IIT Delhi techies, Botlab Dynamics had dazzled onlookers at the grounds of their alma mater in one of the first drone light shows in the capital last September. A single computer on the ground had controlled 80 autonomous drones as they changed their colours, shades and shapes to create formations like the tricolour, human DNA and a vessel. Then this Republic Day, on Beating Retreat, they repeated the spectacular on a much grander scale with 1,000 drones over Raisina Hill. And now it has organised an event for an east African country too.

Drone light show are usually 8-10 minutes long during which they create 6-8 formations at an altitude of 50 metres, a key member of Botlab had recently told TOI. All the three critical components of a drone — flight control (its “brain”), GPS for precision position and motor control to determine rotor spin — are indigenously made.

The recently-held Tokyo Olympics had a drone light show by Intel where our planet earth floated gently above through a formation of 1,824 premium drones. Joe Biden-Kamal Harris victory was celebrated by a grand drone light show. Now Indian companies are getting on this bandwagon in a big way.

IIT Delhi successfully completes first batch of STEM Mentorship program for School kids


The first batch of the STEM Mentorship Program has been completed successfully at IIT Delhi. The Program was held for class 11 girls and 10 government schools were selected for this batch. The STEM Mentorship program is launched by IIT Delhi’s Academic Outreach and New Initiatives office. The program was introduced in December 2021.
IIT Delhi has successfully completed the STEM Mentorship Program for its first batch of class 11 girls. The Program was launched by the Academic Outreach and New Initiatives office at IIT Delhi. The students were also awarded certificates in a felicitation ceremony held by the institution. In the first batch, a faculty member was assigned to each of the 10 government schools that were selected.

In December 2021, the STEM Mentorship Program was introduced to encourage young girls to pursue a career in Science and Technology. Students selected for the Program were mentored by the IIT Delhi faculty, over a period of seven months. They were taught many topics such as artificial photosynthesis, water reuse using nanotechnology, theoretical computer science and many more.

There were three phases to the program, a winter internship from December 2021 to January 2022, followed by an online lecture series from February to April 2022 in IIT Delhi and finally the summer project from May to June 2022.

The Associate Dean of Academic Outreach and New Initiatives, IIT Delhi, Prof. Pritha Chandra said that “As an institute, we earnestly believe that every child has the right to quality education in all disciplines, irrespective of one’s gender. Our primary motivation for starting the STEM program for girl students was to help mitigate the gender imbalance we find in science and technology-related careers. The success of the program has given us the confidence to carry on with our mission and reach out to more girl students through this particular initiative and similar others.”
Sanmita Paul, a student who participated in the program said that she had a great experience interacting with the faculty and PhD students of IIT Delhi during the Program. The STEM Mentorship Program helped her learn new things and develop research skills. The Program and online lecture series have helped her to choose the path she would want to pursue in her higher studies.

Prof. Divya Nayar, a faculty member Department of Materials Science and Engineering at IIT Delhi and Coordinator for the STEM Mentorship Program said that they aim to expand the program to other regions of the country after the success of its first batch.

**IIT Delhi Invites Proposal For Research in Autonomous Vehicles, Nano Robotics, Blockchain**


Indian industries, start-ups, faculty members, scientists, engineers, technologists from reputed academic institutions, R&D The Indian Institute of Technology (IIT) Delhi’s I-Hub Foundation for Cobotics (IHFC), and the Technology Innovation Hub (TIH) has invited proposals for three new projects in areas of autonomous vehicles, nano robotics, and blockchain for applications in robotics. For the one to three years projects, both freshers and professionals can apply.

The aim of the IHFC Grand project on cobotics-2022 call for proposal is to enhance value creation through, research and innovation for the development of new technologies, products, applications, solutions, services, and business models, claims the institute in its press release.

Indian industries, start-ups, faculty members, scientists, engineers, technologists from reputed academic institutions, R&D institutions and laboratories can apply. The project duration will initially be for one year and extendable up to three years based on the achievement or progress of the project.

Interested candidates have to submit the proposal in PDF via online using the link available at the official website of the IHFC. For any other information candidates can reach out to contact@ihfc.co.in.

Dr Srivari Chandrasekhar, Secretary, Department of Science of Technology, Government of India, announced about the new projects on the IHFC’s second anniversary. On this occasion, IHFC announced call for proposals for the new projects.

While addressing the event, D Chandrasekhar expressed his satisfaction and delight over the association of the DST with the IHFC and how the latter has moved forward in the last two years on all the mandates given by the DST.

Dr Chandrasekhar added that agriculture needs attention and intervention, and he is looking forward to the DST and IHFC to work seamlessly and coherently for future growth in this area and offer some solution to the farmers and the agricultural sector. He also unveiled the 4th edition of the IHFC.
Indian Institute of Technology, IIT Delhi had organised a Do-It-Yourself, DIY summer boot camp named ‘Change Makers’ for the students of Class 11 and Class 12. The summer boot camp is successfully accomplished today, June 24, 2022. 25 students of Class 11 and Class 12 participated in the summer boot camp according to the press release.

A Summer Boot Camp named ‘Change Makers’ was organised by the Indian Institute of Technology, IIT Delhi. This summer boot camp was a Do-It-Yourself, DIY Programme for students of Class 11 and Class 12.

There were 25 students from both the classes who participated in the summer boot camp according to the press release.

The press release added that on the occasion of the summer boot camp, the IIT Delhi also congratulated and awarded the students who participated in the camp for their extraordinary hard work, their dedication, passion and performance.

As per the press release, the students showed their talent by making prototypes and they also received proper guidance from the IIT Delhi faculty members and student mentors. The state-of-the-art facilities were also available for the students at Makerspace, which is a DIY Research facility at IIT Delhi to change art into reality.

The summer boot camp saw students forming teams and choosing the correct problems to work in the first week as mentioned in the press release.

“That was fascinating to see the enthusiasm, ideas and initiative of the young school students. We hope to enthuse school children to learn by doing and solve societal problems.” stated IIT Delhi Director, Professor Rangan Banerjee.

As per the press release, the students learnt fabrication skills, building the prototypes of their electro-mechanical projects under the able guidance of the faculty members and students in the second, third and fourth week respectively.

"I am very grateful to be here. It opened so many opportunities for me. Now, the space for exploring my opportunities has become limitless! I want to thank everyone for this bootcamp. Here, I learnt many new things, more than my curriculum could ever provide! Thank you.” stated a school student, Kislay Kisu who was a part of the summer boot camp.
Students for short-term internship would be selected on the basis of their application. However, for the long-term internship and MTech, the selection would be on the basis of application as well an online interview.

The Administration of Union Territory of Ladakh and IIT Delhi, IIT Bombay, IIT Kanpur have collaborated to offer internship programmes and sponsored MTech. programmes to students from Ladakh. The last date to apply for the opportunities is June 30, 2022. Candidates can visit the official website – academics.iitd.ac.in/srfp/ to know more details.

The three IITs are offering the following specific opportunities: Short-term Internships for undergraduate students (1.5 – 2 months duration), long-term Internships for undergraduate students for 6 months duration and sponsored MTech. Programmes. There are total of 30 seats available at the three IITs for the short-term internship, 15 seats for long-term internship and 12 seats for MTech programmes.

Students for the short-term internship would be selected on the basis of their application. However, for the long-term internship and MTech, the selection would be on the basis of application as well an online interview.

The students selected for the short-term and long-term internships would be paid consolidated scholarships of Rs 15000 and Rs 50000 respectively. The students selected for the MTech programmes would be paid a scholarship of Rs 25,000 per month.

This initiative has been launched with an idea to enhance opportunities for the students from Ladakh who are currently pursuing an undergraduate level course in STEM (Science, Technology, Engineering, Mathematics) subjects.

Private universities don’t see teachers as assets, pay poorly, says former IIT Delhi director

V Ramgopal Rao said the problem exists even in Institutions of Eminence, suggested using NIRF, NAAC to enforce minimum salaries.
Private universities don’t pay their teachers enough, complained former Indian Institute of Technology (IIT) Delhi director, V Ramgopal Rao on social media on Monday. “Faculty salaries in private universities is an issue that needs to be addressed in India,” Rao wrote, “Vast campuses, fancy buildings and TV commercials don't make a great university. It's the faculty. Most of them aren't even paying 7th Pay Commission salaries, which is atrocious.”
Rao came to this conclusion after conversations with PhD graduates from IIT Delhi and IIT Bombay who have been appointed in private universities but are constantly looking for jobs in government institutions, even lesser-known ones, because they pay full salary.

He told Careers360: “Private universities can pay tens of crores on television commercials but still aren't paying the faculties the 6th pay commission salaries to their faculties. In government institutes we were paid sixth pay some 15 years ago. This also goes for private universities which have been recognised as Institutes of Eminence.”

**Use NIRF, NAAC**

On social media, where he has tagged the University Grants Commission (UGC) chairman M Jagadesh Kumar, Rao suggested enforcing minimum salaries through the government’s ranking and rating systems – the National Institutional Ranking Framework (NIRF) and National Assessment and Accreditation Council (NAAC).

“For the higher education sector in India to scale up..., we need good private universities. Without being able to attract good faculty, these institutions can never improve their quality. Faculty salaries are already low in India and this is bare minimum,” Rao further wrote pointing out that the National Education Policy (NEP) 2020 has set a target of 50 percent gross enrolment ratio which is the percentage of youth in the college-going age-bracket that is actually enrolled in higher education.

**Buildings, not faculty, as asset**

Rao argued that private varsities don’t lack money. “They surely have money which can be seen through the expenditure on beautifying the campuses, and other things. The idea is that they look at these buildings as capital assets but they are not looking at faculties as an asset and the mindset is that if someone leaves they can hire someone else. This attitude is incorrect. There are good faculty members but why would they continue if they are not respected, valued or paid properly. India has around 600-700 private universities, but except for three-four universities, I doubt if anyone is paying the seventh pay commission,” said Rao.

**IIT Delhi wins north zone final round of National Inter-College Crossword Expedition, organised by AICTE and UGC**  
**June 20, 2022**  
Harshul Sagar and Arush Utkarsh of Indian Institute of Technology (IIT) Delhi were on Monday declared winners of the North Zone Finals Round of the National Inter-college Crossword Expedition (NICE 22). Shashwat Saxena and Jatin Agarwal of Jaypee Institute of Information Technology (JIIT) were declared first runners-up followed by Shashwat Sanjeev and Yuvraj Singh of Hansraj College, Delhi, at the third place.

IIT Delhi moved ahead of all its six competitors and scored 100 points followed by JIIT securing 40 points and Hansraj College with 35 points. Altogether 50 teams had qualified for the North Zonal Round of which three teams have qualified for the National Grand Finale to be held at Delhi in August this year.

The event was held at VIPS-TC College of Engineering, Delhi on Monday.

NICE 22 is a national-level inter-college three-stage contest conducted in a hybrid online-offline mode. It is jointly organised by the All India Council for Technical Education (AICTE) and the University Grant Commission (UGC) with the Extra-C, a civil-society initiative based in Patna, as part of the celebrations of ‘Azadi Ka Amrit Mahotsav.’

“The objective is to showcase India's rich learning heritage by leveraging the beautiful mindgame of crosswords. The participants were shortlisted based on their cumulative scores in the online round held on four successive Sundays in April on www.crypticsingh.com,” an senior official of the Extra-C told TOI here on Monday.

The Zonal Finals were onstage and in PowerPoint format. It was conducted by Ramki Krishnan, six-time champion of Indian Crossword League. The chief guest was Dr Buddha Chandrashekhar, the chief coordinating officer of the AICTE who encouraged the participants and hailed the benefits of the New Education Policy. He also felicitated the top 3 teams.

Sambuddha Biswas, coordinator of the Extra-C, felicitated the participants of NICE 22. Prof Goldie Gabrani, Prof Deepali Virmani and a team of faculty members and student volunteers played a crucial role in making the event a success, the Extra-C official said.

Proposal for IIT-Delhi experts to train PWD officials in road-marking


IIT-Delhi experts might train Public Works Department engineers on road-marking if a proposal by the Transport Department is accepted by the PWD, officials said on Sunday. We plan to put forth the suggestion that IIT-Delhi experts work with PWD engineers and train them on the new developments in terms of road marking, said an official.
IIT-Delhi experts might train Public Works Department engineers on road-marking if a proposal by the Transport Department is accepted by the PWD, officials said on Sunday. According to officials privy to the development, the second part of the bus lane enforcement drive will involve training of bus drivers and officials. The Transport Department has sought time from Deputy Chief Minister Manish Sisodia to make a presentation on various proposals through which the PWD and Transport Department can work together on road marking for bus lanes, non-motorised vehicles. A pilot stretch between Brittania Chowk to Raja Garden junction had been identified on the basis of data on bunching of buses for implementation of signages for overtaking zones, expanded bus lanes, and pick off and drop off points. The Transport Department had carried out a project one month back in which it had made special markings. The Transport Department intends to present the report of this project to the Sisodia, who also is also the PWD minister. "We have IIT-Delhi experts working with us on various projects. The PWD engineers follow a set pattern for road marking but with changing times and development of various modes of transport, there need to be specialised lanes. We plan to put forth the suggestion that IIT-Delhi experts work with PWD engineers and train them on the new developments in terms of road marking," said an official. The Delhi government had started an intensive enforcement drive for buses and goods carriers from April 1.

IIT Delhi celebrates two years of I-Hub Hans
June 18, 2022

To mark two years since the establishment of I-Hub Foundation for Cobotics (IHFC), the Technology Innovation Hub (TIH) of Indian Institute of Technology, Delhi held an event here in New Delhi to speak on the past achievements and future prospects of research and development.

Expressing his delight at the occasion, Dr. Srivari Chandrasekhar, Secretary, Department of Science of Technology, Government of India said that IHFC has moved forward in the last 2 years on all the mandates given by the DST. IHFC on Friday announced Call for Proposals for three new Grand Projects in areas of Autonomous Vehicles, Nano Robotics, and BlockChain for Applications in Robotics.

Noting that the agriculture segment requires attention of the research bodies, Dr Chandrasekhar said he is looking forward to the DST and IHFC to work seamlessly and coherently for future growth in this area and offer some solution to the farmers and the agricultural sector. He also unveiled the 4th edition of the IHFC newsletter 'Cobotics' News at this event.
Professor Rangan Banerjee, Director, IIT Delhi highlighted the significant progress made by the IHFC during the last 2 years in areas of incubating start-ups and shortlisting the Grand Projects in the focus areas to work upon.

Professor Banerjee said, "It is wonderful to see the journey of IHFC and share with you as to how they have greatly helped IIT Delhi to create an ecosystem while focussing on commercialisation of the Research and Development activities."

Professor Subir Kumar Saha, Project Director, IHFC spoke about all the recent collaborations the IHFC has established with various entities and governing bodies over the course of two years. He also shared his enthusiasm about the recent development in the field of school education research and development, and the significant role IHFC would play to enable them. Also Read - IISC, IIT Delhi Climb Up on the QS World University Rankings 2023 Professor Saha said, "I would like to thank the Delhi Government for their futuristic thought process of creating and enabling schools to implement a revised and more technically robust syllabus making the children of the future, tomorrow ready and for choosing IHFC as the main player in creating this revised and futuristic skill development-based syllabus."

Meanwhile, IHFC CEO, Ashutosh Dutt Sharma shared the progress made by IHFC since its inception and its commitment towards creating a robust eco-system for encouraging research-led entrepreneurship and thereby building a strong foundation in technology innovation. He stated that IHFC has been working with its collaborating institutes and organisations and has launched seven grand projects in areas of Medical Simulators, Healthcare Robotics, Rehabilitation Robotics, Drone Applications, Human Robot Interaction (HRI), Industry 4.0 and Beyond, Intelligent Sensing and Secured Communication to fund research and product development in these domains.

IIT-Delhi researchers develop drug molecules that can help treat diseases like Japanese Encephalitis, Alzheimer’s


According to the researchers, the new drug designing strategy could also be adopted to treat retroviral infections.

A team of researchers from the Indian Institute of Technology (IIT) Delhi has developed a new strategy for developing potential drug molecules for treating various diseases such as Japanese Encephalitis, Alzheimer’s, and retroviral infections.

The group was led by Professor V Haridas from IIT Delhi’s Chemistry department, who collaborated with virologist Professor Guruprasad Medigeshi from the Translational Health Science and Technology Institute (THSTI), and biochemist Professor Bishwajit Kundu from the Kusuma School of Biological Sciences, IIT Delhi.

“Drugs are mostly organic molecules that interact with molecules present in the human body. The molecules in the body are bigger in size and are typically called macromolecules. These molecules are either proteins or nucleic
acids. Presently, computer-aided rational drug discovery is utilised to find the target molecule for a particular protein target. Still, this takes a considerable amount of time,“ the institute said in a statement.

“The researchers have come up with a chemical strategy based on the macromolecular mimicry. Molecules have shapes just like objects. Designing and synthesising molecules with diverse shapes is an art in itself. Mimicking (copying) the macromolecular interface by uniquely shaped small molecules is an approach adopted by the research group,” it added.

The researchers utilised tools of Organic Chemistry and Biophysics to design molecules that target protein interface.

“They developed a universal privileged scaffold approach for the design of a variety of inhibitors. The universal scaffold could be converted to a specific inhibitor for a given Protein-Protein Interaction (PPI), which makes the drug design approach relatively easier,” IIT said.

“We used this strategy to design drug molecules, which could be useful for the treatment of Japanese Encephalitis Virus (JEV), the main cause for viral encephalitis in Southeast Asian countries, and protein aggregation diseases such as Alzheimer’s and other related diseases. We have also patented the JEV inhibitor drug molecule,” said Haridas.

Where do founders of 100 Indian unicorns come from? IIT Delhi tops list, IIMs nurtured many too

More than 50% of founders of start-ups worth over $1 billion are IIT graduates. IIT Delhi conducive to start-ups thanks to networking & academic support, says alumni alumni association ex-chief.
On 5 May, India got its 100th unicorn, Open, a neobanking fintech portal, in a milestone lauded by Prime Minister Narendra Modi. Unicorns are start-ups valued at over $1 billion — and in India, firms founded by IIT graduates make up more than half this growing herd.

Unicorns in India include household names like Flipkart, Bigbasket, Byju’s, Paytm, Swiggy, Zerodha, Slice, Grofers, Snapdeal, Ola, Oyo and MakeMyTrip. Research conducted by ThePrint, and a study of a consolidated list shared by IIT Delhi’s alumni network, have revealed that nearly 85 per cent of the founders of these start-ups have studied engineering.

Specifically, over 50 per cent graduated from the various Indian Institutes of Technology (IITs) across the country. Of these, a majority — 30 people — are from IIT Delhi, followed by IIT Bombay, which accounts for 18 start-up founders, and IIT Kanpur, which accounts for 16. A few are also IIT Kharagpur and IIT Madras alumni. According to Rohit Koshy, former president of the IIT Delhi Alumni Association and co-chair of the PanIIT Global Conference 2021, the environment at IIT Delhi is conducive for start-ups thanks to the network it has created over the years.

Speaking to ThePrint, Koshy said: “IIT Delhi, unlike IIT Kanpur and Madras, is unique in that a lot of us from here do our MBAs and enter the civil services. So, the access that we have to the civil service community is pretty big. Also, Delhi being the capital gives a lot of advantage to its students. Most of the start-ups are based out of either Delhi, Mumbai or Bengaluru. Since Bengaluru doesn’t have an IIT, Delhi alumni go and set up their start-ups over there.”

The institute, added Koshy, also supports the start-up culture academically. “The compulsion to do a project in B. Tech during the eighth semester has been done away with, so a lot of students take that semester to either work with a start-up or start one of their own,” he said.

A programme offering students a minor in entrepreneurship also helps students get acquainted with the start-up culture, said Koshy.

There’s also an initiative by the Union government, the National Innovation and Startup Policy 2019 for Students and Faculty, that aims to promote start-ups and build an “entrepreneurial mindset” among students. Former IIT Delhi director V. Ramgopal Rao had shared a list of unicorn start-ups last month on Twitter, pointing that a large number had IIT Delhi alumni behind them.

Unicorn founders from IIT Delhi include e-commerce website Flipkart’s founders Binny Bansal and Sachin Bansal; restaurant aggregator and food delivery company Zomato’s Deepinder Goyal, Gaurav Gupta and Pankaj Chaddah; e-commerce site Meesho’s Vidit Aatrey and Sanjeev Barnwal; and fintech payment solution provider Pine Labs’ Rajul Garg and Tarun Upadhyay.

Delhivery’s co-founder Kapil Bharti, too, is from IIT Delhi. He co-founded the logistics service along with Bhavesh Manglani from the Dhirubhai Ambani Institute of Information and Communication Technology in Gandhinagar,
Mohit Tandon from IIT Kanpur, Sahil Barua from the National Institute of Technology, Karnataka and Suraj Saharan from IIT Bombay.

According to a report titled, “Decoding India’s 100 Unicorns”, released by media platform Inc24 in May, 23 of the 100 Unicorns are in the e-commerce sector, followed by fintech (21), enterprise tech (19), computer services (9), media and entertainment (7), edtech (6), logistics (5), healthcare (4), travel tech (2), transport tech (2), clean tech (1) and real estate tech (1). It adds that a majority of these acquired the unicorn status after 2020.

Other IITs not far behind...

Several notable unicorns, ThePrint found, have IIT Bombay alumni as founders, such as Ola Cabs, by Ankit Bhati and Bhavish Aggarwal; CitiusTech, an IT healthcare platform, by Jagdish Moorjani and Rizwan Koita; and BillDesk by Karthik Ganapathy of IIT Bombay, along with Ajay Kaushal of IIT Madras and Srinivasa M.N. of RKM Vivekananda College, Chennai.

The ones started by IIT Kanpur alumni are logistics service Rivigo, founded by Deepak Garg from IIT Kanpur along with Gazal Kalra from IIT Delhi; Glance, an AI-based software company, by Naveen Tewari; social media platform ShareChat, by Ankush Sachdeva, Bhanu Pratap Singh and Farid Ahsan; and Urban Company, by Abhiraj Singh Bhal and Varun Khaitan of IIT Kanpur, along with Raghav Chandra from the University of California, Berkeley.
...and if not IITs, then IIMs

ThePrint found that graduates of Indian Institutes of Management (IIMs) also make up a significant section of unicorn founders — nearly 20 of those who didn’t attend an IIT had a postgraduate degree from one of the IIMs. Falguni Nayar, the founder of e-commerce beauty and personal care brand Nykaa, is an alumna of IIM Ahmedabad. Supam Maheshwari, co-founder of FirstCry, an e-commerce brand for baby products, also did his postgraduation from IIM Ahmedabad after getting a degree in engineering from the Delhi College of Engineering (now known as Delhi Technological University).

The unicorns without either IIT or IIM alumni at the helm include PayTM, founded by Akshay Khanna and Vijay Shekhar Sharma — both alumni of the Delhi College of Engineering — and Unacademy by Gaurav Munjal, a graduate of the Narsee Monjee Institute of Management Studies, Hemesh Singh and Sachin Gupta from Motilal Nehru National Institute of Technology and Roman Saini from the All India Institute of Medical Sciences (AIIMS).

IIT Delhi researchers develop low-cost braces to improve earthquake resistance of structures


These buckling restrained braces can also be installed in steel and concrete bridges to improve their earthquake resistance.
Researchers at the Indian Institute of Technology (IIT) Delhi have developed buckling restrained braces that can provide better protection to constructions from earthquakes. These braces are claimed to be low-cost and elastic and to have advantageous features such as all-steel components, onsite fabrication and assembling process, post-earthquake inspection, and easy replacement.

According to a statement from IIT Delhi, these braces can also be installed in steel and concrete bridges to improve their earthquake resistance. The buckling-restrained braces developed by IIT Delhi researchers will use both seismic forces resisting systems and vibration control devices. The institute claims that the hybrid buckling-restrained braces (HBRBs) developed by the IITD researchers have higher strength, ductility, and energy dissipation potential.

Dipti Ranjan Sahoo, a professor at the civil engineering department of IIT Delhi and his student Ahmad Fayeq Ghowsi fabricated the braces at the Heavy Structures Laboratory in IIT Delhi. The research received funds under the Fund for Improvement of S-T Infrastructure (FIST) programme of the department of science and technology (DST).

According to Sahoo, a patent has recently been applied for the same. “The proposed technology is effective in the new constructions and has a great potential for the up-gradation and retrofitting of seismically deficient reinforced concrete (RC) and steel framed structures, such as residential/office buildings, hospitals, and school buildings. We have filed a patent for this technology,” he said.

**Delhi Police, IIT-D ink MoU to induct latest technologies in policing**


_An MoU has been signed between Delhi Police and IIT-Delhi to induct the latest innovations and technologies in policing. IIT-Delhi Professor Rangan Banerjee said that the institute will develop the technologies required by the police to make them the best in the world._
Delhi Police and the Indian Institute of Technology (IIT), Delhi have signed an MoU with the aim to induct the latest innovations and technologies in policing in areas of crime, law and order. Delhi Police Commissioner Rakesh Asthana has been trying to modernise its force by inducting the latest innovations in policing.

In a bid to enhance policing in the areas of crime, law and order, traffic management, intelligence collection & the delivery of services to the public, stakeholders are being roped in from various research organisations and universities. In line with this direction, an MoU has been signed between Delhi Police and IIT-Delhi on Tuesday.

The MoU was signed by SBK Singh, Special CP Technology and Project Implementation Division representing Delhi Police and Professor Rangan Banerjee, Director IIT, Delhi in the presence of the Commissioner of Delhi Police.

MoU TO MEET FUTURE CHALLENGES

The MoU signed between Delhi Police and IIT Delhi will pave the way for scouting new technology, evaluating existing technology-based projects, development of technology-based solutions to meet future challenges, and roping in suitable resource persons to the Technical Committees of Delhi Police.

It will carve out solutions for new communication systems, drone forensics, integration of CCTV feeds on one single platform, infusion of technologies to solve the parking problems, technical specifications for Bullet Resistance (BR) Jackets, and BR Vests, and others.

Professor Rangan Banerjee, Director, IIT-Delhi underlined that focus on technology and resources must be used for society and IIT Delhi will work in this direction. "Technology and systems required by Delhi Police in the future will be developed to make the Delhi police the best in the world," he added.

The Delhi Police Chief underlined that IIT Delhi through this MoU will assist Delhi Police in the adoption of innovative technologies and developing indigenous digital trunking communication systems, and CCTV integration platforms in consonance with Hon’ble PM’s vision of ‘Atmanirbhar Bharat’.

"Maintenance of order, inculcating safety in minds of citizens, prevention of misuse of mobile phones and voice over internet protocol (VOIP) in the given limited resources is a humongous challenge, which can be handled with
the infusion of new technologies in the area of digital communication, prevention of terrorist activities and maintenance of order. IIT Delhi can assist Delhi Police in these areas and in future areas of technology like the use of Artificial Intelligence (AI), Machine Learning (ML), drone technologies, traffic management, and maintenance of law and order," he said.

World’s top coder, IIT-D student: No plans for the USD 10,000 prize yet

Kalash Gupta, a student of Indian Institute of Technology (IIT) Delhi, recently bagged the coveted title of World’s Greatest Coder. (Photo: Twitter)

Delhi boy Kalash Gupta, a student of Indian Institute of Technology (IIT) Delhi, won the world’s largest coding contest TCS CodeVita by defeating over 100,000 students from 87 countries.

When Delhi boy Kalash Gupta, a student of Indian Institute of Technology (IIT) Delhi, recently bagged the coveted title of World’s Greatest Coder, everyone applauded the young lad on social media, for his achievement. But even after winning a grand cash prize of USD 10,000 — at the global computer programming competition, CodeVita that had one lakh participants from 87 countries this year — Gupta chooses to stay humble, and keep solving harder problems.

“It feels great to be able to compete with strong, competitive programmers and perform well. It was an enjoyable learning experience,” says the 22-year-old, about his experience at the competition, and adds: “I have no immediate plans for the prize amount. I will likely save it for any goals I might have in the future.”
The 22-year-old plans to save the grand cash prize of USD 10,000 for goals that he might have in the future. His first tryst with the world of competitive coding dates back to the time when he was in grade XI. “I was introduced to competitive programming in class 11, and immediately liked it. I have enjoyed pursuing it as a hobby, and it was this that acted as a motivating factor for me to pursue a bachelor’s in computer science and engineering.... Today, I would encourage everyone to try out competitive programming and stick with it if they enjoy it. It is also important to keep increasing the difficulty of tasks that you practise to improve one’s problem solving skills and become a stronger competitive programmer,” he says.

Gupta feels strongly in the power of technology. “I believe technology will continue to be deeply intertwined with our lives. Continued advancements will likely enable us to solve tougher problems and improve the quality of our lives,” he says, adding how he has a relatively low screen time and is still trying to reduce it.

One would think that he would have now reached a step closer to his dream, after winning an international competition, but Gupta, on the contrary, says, “I have always treated competitive programming as a hobby and not just as a stepping stone for advancing in my career. Two-three years down the line, I might pursue a master’s degree. And I would like to work on challenging problems.”

**IIT-Delhi jumps 11 spots to 174 in World University Rankings; DU and JNU slip**

**IIT Delhi jumped 11 places to secure the 174th spot in the QS World University Rankings released Wednesday.** According to Prof PV Rao, dean planning and head rankings, IIT-D, “In the past two years, the institute has improved its rank by 19 places. Several new interdisciplinary academic programmes and collaborative joint degree programmes with international universities have been initiated, which contributed to the improved performance
in outcome-based QS WUR parameters.” IIT-D scored 38.7 and 101.1 in two unweighted metrics that were introduced in the 2023 edition, namely international research network and employment outcomes. The global median for these were 41 and 35, respectively.

Central varsities like DU, JNU and Jamia Millia Islamia saw their rankings decline compared to last year, lagging in faculty-student ratio and international student ratio. Among central universities, while DU had the highest rank of 521-530, its faculty student ratio stood at 4:5. Stating that the varsity is looking into the gaps, DU spokesperson Anoop Lather said, “There are some flaws, but wherever the parameters are down, we will take care of it. We are confident we will overcome these gaps by next year.” VC Yogesh Singh could not be reached for a response.

Senior officials of various varsities said “apples and oranges” could not be compared. JMI vice chancellor Najma Akhtar told TOI, “The scenario in our country is very different from that of foreign universities. We often have a larger number of students in a particular class, so naturally the ratio is affected. Similarly, IITs are very heavy on placements and have other indicators. Unless there is a common tool that is adjustable, one cannot compare foreign universities and Indian ones.” Stating that the varsity, which was ranked 801-1,000, will look at aspects like employer perception, international faculty and placements, Akhtar added, “We are not at all worried by the ranking. Rather, it will help us boost our morale. Additionally, we should also be given the rules of the game before it begins.”
Adding that it was not viable to compare it to IIT, Ajay Kumar Dubey, JNU rector, said, “JNU’s strength is incremental value addition. An institute like IISc concentrates more on research while we have a massive teaching commitment along with research. Unfortunately, that is not reflected in the rankings.”

The university, which was ranked 601-650, plans to expand in terms of quality research and internationalisation, Dubey added. “We will take into account the common parameters and move in that direction, including improving public perception, foreign student intake, faculty and interaction. However, some of the indicators are not applicable. For instance, they ask for alumni based in foreign countries. We might be low on that but four Cabinet ministers are our alumni, many are in government service, media and intellectual personalities. How can these two be compared?” he said.

**AIIA, IIT-D to develop diagnostic tools for Ayurveda**


Ayurveda has now turned to modern technology for validation of its beliefs and systems. As the Covid-19 threat continues, the All India Institute of Ayurveda (AIIA), under the Union Ayush Ministry, and Indian Institute of Technology(IIT), Delhi, are jointly working to develop innovative diagnostic tools and equipment for various Ayurvedic procedures.

Dr Tanuja Nesari, Director of the Delhi-based AIIA told reporters here on Thursday that at least seven collaborative projects for interdisciplinary research in Ayurveda and applying engineering science principles have been undertaken for which results are on the way.

For instance these include, she informed, ‘dhoopan-yantra’ - a fumigation device for aiding wound healing is being developed to eradicate virus and bacteria from the air while early cancer detection and assessment of breast cancer response to Ayurvedic drugs is being developed.

Others are Ayurvedic rasas (tastes) on gastrointestinal secretions; herbal formulations that would reduce the harmful effects of reusing cooking oil, developing a biodegradable, herbal wound dressing and last but not the least is the study the effects of the ‘Brahmari pranayama’ on the nervous system. Most of these are likely to be completed by the year-end, Dr Nesari said.

She also shared that the institute is now planning to establish ‘Respiratory Rehabilitation Centre’ to cater to post-Covid patients, Chronic obstructive pulmonary disease patients, post-acute respiratory distress syndrome patients, and interstitial lung disease patients, with ayurveda therapies, yoga, meditation and modern equipment like spirometer, incentive spirometry and bronchodilators medicines. “The Hospital is also in the process of establishing a chemotherapy day care center to treat cancer patients using a combination of Ayurveda therapy and chemotherapy,” she added.

These are just a few measures being undertaken where the best of traditional and modern medicine and therapies are being combined, “We are also working to provide holistic people-centered health services for all.
India has committed to Sustainable Development Goals (SDG) and Universal Health Coverage by 2030.

This is possible only through a preventive and promotive health care orientation in all developmental policies, and universal access to good quality health care services without anyone having to face financial hardship as a consequence,” said Dr Nesari.

IIT Delhi- incubated Startup on Road to Making "Safest" Electric Scooter


"Anyone can glue together some plastics parts, call it EV and sell. But the real work is about making safer electric vehicles that can adapt to Indian driving conditions and be reliable," said Vikas Gupta, who co-founded Creatara Mobility.

IIT Delhi-incubated Creatara Mobility plans to make "world's safest" electric scooter

An electric vehicle start-up incubated by the Indian Institute of Technology in Delhi is doing deep research on making safer electric two-wheelers, which the company plans to roll out once their testing is complete.

"Anyone can glue together some plastics parts, call it EV and sell. But the real work is about making safer electric vehicles that can adapt to Indian driving conditions and be reliable," said Vikas Gupta, who co-founded Creatara Mobility Pvt Ltd with Ringlarei Pamei in 2018. Both are alumnus of IIT-Delhi.

Creatara Mobility is making next-generation electric vehicles, which are safer and reliable, the entrepreneur said. "Our goal is to make the world's safest electric two-wheeler," said Mr Gupta, who is using IIT-Delhi's facility called CART Lab to run tests on prototypes. The incubation facility, known as FITT, is also supported by the government's Department of Science and Technology.

Mr Gupta said Creatara Mobility provides multiple failsafe mechanisms, from cell to pack level. "Whatever cells we are using, we are testing them in-house. We have our own standards for grading parameters and sorting, which we developed in-house," he said.
His company won the Altair Start-up Challenge in April this year for their innovative work on structural components and major systems during early product design and development phases. Altair gave the award to Creatara Mobility in collaboration with ARAI, Confederation of Indian Industry, and the government’s "Start-up India" programme for being one of the most innovative and promising EV start-ups.

The Creatara Mobility team. The startup is now backed by two angel investors, Soonicorn and NK Securities, for an undisclosed amount.

Creatara has also been awarded a grant of ₹64 lakh by automotive components and systems firm Sona Comstar under the SCIDIP, or Sona-Comstar-IIT Delhi Innovation Programme. The start-up is now backed by two angel investors, Soonicorn and NK Securities, for an undisclosed amount.

Expected to be launched at the next Auto Expo, Creatara Mobility's scooter is likely to enter the Automotive Research Association of India, or ARAI, certification stage soon. "We plan to launch and sell the scooter in Delhi and the National Capital Region initially," Mr Gupta said.

Calls for safer batteries for electric scooters have been rising following frequent incidents of EVs, or electric vehicles, catching fire across the country, with electric scooter makers of all kinds mushrooming suddenly. Automotive safety experts have raised concerns over the kinds of batteries they are using as they churn out mini two-wheeler EVs at a fast rate. The government has also taken note of the incidents. In March, it had ordered an investigation after an Ola electric scooter caught fire in Pune.

**IIT-Delhi, Samsung launch ‘Solve for Tomorrow’ contest; Check details**


*Interested candidates can register themselves on the official website — samsung.com/in/solvefortomorrow — before 5 pm of July 31, 2022.*
Candidates can register individually or in a group of three members for this innovation contest. (Representative image)

Samsung has launched the inaugural edition of ‘Solve for Tomorrow’, which is a new youth-centric national education and innovation competition. Samsung is inviting India’s young minds to come up with innovative ideas that can help transform the lives of people and communities around them. Interested candidates can register themselves on the official website — samsung.com/in/solvefortomorrow

The registration for this programme has started from today, i.e June 9 and the last date to apply is July 31, 2022, till 5 pm. The candidates registering for the contest should be between 16 to 22 years old.

The ‘Solve for Tomorrow’ contest is a citizenship initiative that engages Gen Z around the world. Education, environment, healthcare, and agriculture are the ideas that are invited for the contest.

Samsung will support 50 teams — individuals or teams of up to three members. The experts of Foundation for Innovation and Technology Transfer (FITT) will appear in-person to help and enhance the idea, along with a boot camp that will be conducted at the Indian Institute of Technology, Delhi (IIT Delhi).

The top 10 teams will get the opportunity to visit Samsung India offices, its R&D centers, and Samsung Opera House in Bengaluru, where they will interact with the Samsung employees and researchers.

The annual programme will end with the announcement of three national winners, who stand a chance to get financial support of upto Rs 1 crore, and mentoring support for six months under the expert guidance of IIT Delhi.
Our Rightful Place in Top 50, Lagging Due to 'Perception', Former IIT Delhi Director on QS Ranking  

Ramgopal Rao claims that institutes like IIT Delhi have their “rightful place” among top 50. The reason behind the Indian institutes lacking in the ranking index is because of the ‘perception’ index.

Describing the six parameters on which QS ranks institutes include academic reputation from global survey, which holds highest weightage of 40 per cent, employer reputation from global survey with 10 per cent weightage. The faculty-student ratio and the citation per faculty Scopus have 20 per cent weightage each. The remaining 10 per cent weightage is equally distributed among ‘proportion of international students’ and ‘proportion of international faculty’.

Stating that 50 per cent of weightage includes reputation matrix, the professor said perception is a “totally subjective metric” as “who you ask decided where you are ranked.” He further stated, “we need to improve our perception. Indian institutions are scoring very poorly here."

He further added, “Among all parameters, citations per faculty is most definitive parameter and is taken from trusted databases. That’s where Indian institutions excel right now with IISc being on top. On this metric, most of our top intuitions are among the top 100."

“So if (we) are faring poorly in these ranging’s, its not because our top institutions are not research intensive or poor in quality. It’s because of perception and lack of international footprint,” he said in a social media post.
In the QS World University Rankings 2023 edition released on Wednesday, IIT Delhi featured amongst the top-200 world institutions with an improved rank of 174 amongst 1422 globally ranked institutes. IIT Delhi has shown an improved performance with an overall score of 46.5 in QS WUR 2023 from its last year’s score of 45.9 overall. A noteworthy improvement was shown in the perception metrics as well with a score of 49 in Academic Reputation (45.8 last year) and Employer reputation 79.2 (70.8 last year). The rank in Academic Reputation and Employer Reputation improved by 12 and 23 positions respectively from the previous year.

Suggesting measures for other institutes as well as IIT Delhi to improve ranking in perception matrix, the former director said, “our top institutions going global and developing an international footprint is the surest and fastest way to reach our rightful place in these world rankings. That we need to do, without compromising on our other quality metrics.”
IIT Delhi trains teachers for CSC Bal Vidyalayas to upskill in technology

CSC Bal Vidyalayas, a government of India initiative, were started in 2020 to bridge the digital divide for the poor and underprivileged primary school children from rural India.

A training workshop "Design Thinking for ICT enabled Bal Vidyalayas in rural India" was organised on the IIT-Delhi campus.

The Indian Institute of Technology Delhi (IIT-D) has started training the teachers of Common Service Centres’ Bal Vidyalaya with the aim to upskill them in the technology to make teaching fun and impacting for the students.

“Across the globe, curricular and pedagogical attempts are underway to prepare children for the 21st century with relevant contemporary skills. India has also made its move through the new National Education Policy (NEP),” Jyoti Kumar, professor, Department of Design, IIT Delhi, said.

“However, there is much effort needed to implement the core philosophies of universal value-based contemporary education at the ground level as detailed in NEP,” she noted.

A training workshop “Design Thinking for ICT enabled Bal Vidyalayas in rural India” was organised on the IIT-Delhi campus. A team at IIT Delhi has also developed Augmented Reality (AR)-based content as per the learning outcomes outlined by the NCERT.

CSC Bal Vidyalayas, a government of India initiative, were started in 2020 in the middle of the COVID pandemic, to bridge the digital divide for the poor and underprivileged primary school children from rural India.