IIT Delhi launches online executive management programme in entrepreneurship


IIT Delhi has launched an executive management programme in entrepreneurship development for final year students, graduates and working professionals.

Indian Institute of Technology (IIT) Delhi has launched the executive management programme in entrepreneurship development, said V Ramgopal Rao, director, IIT Delhi, in a social media post. The programme will lead to a certificate.

The programme has been designed to promote entrepreneurial culture. IIT Delhi will be offering the programme online. It will also have a two-day on-campus immersion at the institute. Live classes will start from September 19. The programme is of eight months duration.

The last date to apply for the programme is August 25.

IIT Delhi certificate course eligibility

A candidate appearing for the final year exam or any engineering graduate can attend the programme. In addition, a diploma holder with a good skill set and who wants to come up with their own start-up can also enrol for the programme.
Working professionals with an interest in starting their own ventures are also eligible for the programme.

IIT Delhi launched the online certificate programmes under eVIDYA to enable virtual and interactive learning for “driving youth advancement@IITD” for Indian and international participants.

IIT Delhi’s eVIDYA portal was launched in November 2020, and is the hub of the institute’s e-learning activities. Until then, most of its online courses were offered via the education ministry’s online learning platform SWAYAM, and before that, NPTEL, an initiative of the IITs and Indian Institute of Science Bangalore, and led by IIT Madras.

It has already launched a range of online courses including ones on digital marketing and e-vehicle technology.

**Delhi IIT Director thumbs up to IFFCO Nano Urea**


Even as IFFCO’s Nano urea trucks were being flagged across states by CMs and Ministers for their respective constituencies, a reputed scientist of the country was lending his support to Nano in an interview with a science journal.

V Ramgopal Rao, Director of the Indian Institute of Technology, Delhi has said that the IFFCO Nano Urea is one of the promising proponents of Nanotechnology. Rao was interviewed by the journal India Science.
Rao who was the P.K.Kelkar Chair Professor in the Department of Electrical Engineering, IIT Bombay, is now heading IIT Delhi.

Calling the endorsement from a reputed expert of the field as momentous IFFCO MD tweeted “Great moment for team IFFCO as Prof Ramgopal Rao Nanotechnologist, Director, IIT Delhi mentioned IFFCO Nano Urea as one of the promising proponents of Nanotechnology during his interview with India Science.

Meanwhile, IFFCO Nano Urea truck was flagged off virtually by Agriculture Minister of Rajasthan Kataria Lalchand in presence of Udailal Anjana, Cooperative Minister and Dileep Sanghani, Vice Chairman, IFFCO on Monday.

**Why IITs are introducing Design courses**


Design aesthetics as a key requisite in tech-driven products has increased the demand for designers who can work alongside engineers. At the IITs, it may explain why undergraduates from both design and engineering streams have to compulsorily take courses from electrical, mechanical and computer science engineering along with key electives from Humanities and the Social Sciences.

“Be it an automobile or energy-efficient stove, both engineers and designers are in demand,” says D Udaya Kumar, head of Department of Design, IIT Guwahati, where design courses at the undergraduate level were first started in 1999. Since then, the institute has come a long way, introducing PhD programmes in Design in 2001 and MDes programme in 2007. Keeping in view the market demand, the institute has added courses in Interaction Design, User Interface (UI)/User Experience (UX) Design, Human Computer Interaction (HCI) Design, to mention a few, for its BDes programme.

Though the demand for Design courses is fairly new, their inception in India goes as far back as in
1961 when the National Institute of Design (NID), Ahmedabad, became the first design institute to start courses for industrial development. Thereafter, IIT Bombay set up an industrial design centre in 1969 to offer PG Diploma in Design before following it up with a Master’s in Design (MDes) course. With the National Design Policy recommending the setting up of design departments in all the IITs in 2011, an increasing number of design courses were introduced at these technical institutes. Several IITs including those in Bombay, Delhi, Guwahati, Kanpur, Madras and Hyderabad have been offering master’s courses in design since the 80s and 90s. Of these institutes, IIT Guwahati, IIT Bombay and IIT Hyderabad have design programmes at the UG level as well. IIT Roorkee is the new entrant in the field, having set up a full-fledged department with two new courses – a Masters in Design (industrial design) and Masters in Innovation Management (MIM) – that will start from the 2021-22 academic year. Its Department of Design aims to facilitate interdisciplinary design-based education, research, and entrepreneurial initiatives.

At IIT Delhi, the Master’s in Design programme, started in 1994, 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) conducted by the IITs and IISc. “Plans are on to introduce BDes in 2022 based on Undergraduate Common Entrance Examination for Design (UCEED) scores as in the other IITs, where even Arts and Commerce students can apply,” says PV Madhusudhan Rao, head, Department of Design, IIT Delhi, adding there is a huge shortage of quality design professionals and a demand-supply gap. “The IITs had started out as teaching institutes before moving on to research. Presently, the focus is on innovation and knowledge application where Design plays a pivotal role.”

Since innovation-led design is driving solutions to problems faced by industries and societies, design graduates are in high demand and receiving 100% placements. At IIT Guwahati, they are being recruited by the IT sector with tech giants such as Google, Microsoft, Infosys vying for the freshers. “Design is a well-paid profession with students earning packages from upwards of Rs 15 lakh up to a crore in overseas placements. This, clubbed with quality education at the IITs known for their state-of-the art infrastructure and multidisciplinary approach, are attracting students in droves,” says Deepak John Mathew, Head of the Department of Design, IIT Hyderabad where placements are on a rise in UI, UX, Visual Communication and Product Design.

List of new courses to be offered by IITs from academic year 2021-22 onwards

June 29, 2021  https://indianexpress.com/article/education/a-list-of-all-the-new-courses-to-be-offered-by-iits-from-academic-year-2021-22-7378152/

Several IITs have launched online and offline courses, which be offered from the academic session 2021-22 onwards. Some new courses have also been launched for professionals. Know about the eligibility criteria, course structure and intake capacity:
Various MTech, BTech programmes have been launched by IITs this year.

The Indian Institute of Technology (IITs) have launched various new courses which will be offered from the academic year 2021-22 onwards. The courses range from technology to public policy and artificial intelligence to design. Some institutes have also decided to offer online programmes in view of the pandemic. The newly launched courses are not limited to college students, but some programmes have also been introduced for working professionals. Here is all about the new courses:

**Master of Public Policy (MPP) – IIT Delhi**

*IIT Delhi is starting a two-year Master of Public Policy (MPP) postgraduate programme from the upcoming academic session 2021-22 with a “focus on Science, Technology, and Innovation (STI) and development. Candidates with bachelor’s degrees such as MBBS, BA LLB (Hons), BArch, BTech, BSc (Ag), BVSc, or equivalent; and postgraduate degrees such as MA, MSc, MPhil, Integrated MSc/MA, MTech or equivalent are eligible to apply.*

**Online MTech and MDes programme – IIT Hyderabad**

IIT Hyderabad announced new seven online MTech programmes and an online MDes programme for working professionals starting from August 2021. Seven online MTech programmes have industrial metallurgy, EV technology, computational mechanics, integrated computational materials engineering, communication and signals processing (CSP), power electronics and power system (PEPS), and microelectronics and VLSI (ME & VLSI). An online MDes programme is for working professionals.

**MTech in Artificial Intelligence and Data Science – IIT-Roorkee**

As part of the newly-established Centre for Artificial Intelligence and Data Science, IIT Roorkee will be offering two new Masters of Technology (MTech) programmes in Artificial Intelligence (AI) and Data Science from the academic session 2021-22. Candidates must have BE/BTech/Integrated MSc or equivalent degree in any engineering course to be able to apply.
e-Masters programmes – IIT Kanpur

IIT Kanpur has launched four eMasters programmes aimed at enabling a seamless remote learning process during the pandemic. The 4 e-masters include programs in Communication Systems, Cybersecurity, Power Sector Regulation, Economics and Management, and Commodity Markets and Risk Management. The application process will take place in July and the programmes will begin in mid-August. The institute will release details about eligibility, fees, and admission, shortly, on their official website.

Master in Design and Master in Innovation Management – IIT Roorkee

IIT Roorkee has established a new department of design (DOD) which has launched two new post-graduate programmes – masters in design (industrial design) and masters in innovation management (MIM) – commencing the academic year 2021-22.

Masters in innovation management (MIM) programme develops students such that they become capable of initiating, managing, and successfully executing projects – skills that the global industry actively covets. Masters in Design (industrial design) aims to expose students to the fundamentals of design and prototyping, design thinking, product-human interface, etc.

MTech in Electric Mobility – IIT Delhi

IIT Delhi will start a new postgraduate (PG) programme in electric mobility from the academic session 2021-22. The programme will cover key aspects related to electric vehicles, drivetrain, chargers and charging infrastructure, battery energy storage systems, battery management system, reusability of energy storage elements. Candidates with 4-years bachelor’s degree in a relevant field and GATE qualified in either electrical engineering (EE) or mechanical engineering (ME) or production and industrial engineering (PI) disciplines will be eligible to apply for the programme.

BTech in Energy Engineering – IIT Delhi

The Centre for Energy Studies (CES) at IIT Delhi will be converted into the Department of Energy Science and Engineering and new courses will be launched as part of the expansion. Besides continuing with three existing MTech programmes (including one sponsored by the International Solar Alliance for working fellows from different countries) presently being offered by the Centre for Energy Studies, the new department would offer an undergraduate degree programme i.e. BTech in Energy Engineering starting from the academic session 2021-2022 with an intake of 40 students qualifying JEE (Advanced).

The Robert Bosch Centre for Data Science and AI (RBCDSAI) at IIT Madras has started a 12-month postgraduate (PG) level advanced programme in Applied Data Science and Machine Intelligence. The programme has been launched in partnership with TalentSprint. Applications for the first cohort of the PG programme, which starts in August 2021. This programme is best suited for early-career professionals eager to build strong data science expertise.

IIT Delhi launches economical Rapid Antigen Test Kit

This kit can be used for in-vitro qualitative detection of SARS-CoV-2 antigen

Minister of State (MoS) for Education, Shri Sanjay Dhotre, launched a Rapid Antigen Test kit for COVID-19 developed by IIT Delhi. The Rapid Antigen Test kit has been developed by the IIT Delhi researchers led by Dr. Harpal Singh, professor at the Institute’s Centre for Biomedical Engineering.

This kit can be used for in-vitro qualitative detection of SARS-CoV-2 antigen. The SARS-CoV-2 Ag Rapid Test is a colloidal gold enhanced double antibody sandwich immunoassay for the qualitative determination of SARS-CoV-2 antigen in human nasal swabs, throat swabs, and deep sputum samples. It is suitable for general population screening and diagnosis of COVID-19.

Rapid Antigen Test kit for Covid-19

The invention is directed towards an in-vitro diagnostic kit for the qualitative detection of SARS-CoV-2 coronavirus antigens in the nasopharyngeal swab, using the rapid immunochromatographic method. The identification is based on the monoclonal antibodies specific for the Coronavirus antigen. The results obtained are qualitative based and can be inferred visually with the naked eye.

A SARS-CoV-2 positive specimen produces a distinct colour band in the test region, formed by the specific antibody antigen-coloured conjugate complex ‘(Au-SARS-CoV-2-Ab)·(SARS-CoV-2-Ag)·(SARS-CoV-2-Ab)’. The absence of this coloured band in the test region suggested a negative result. A coloured band always appears in the control region serving as procedural control regardless of whether the specimen contains SARS-CoV-2 or not.

“The test is found to be suitable for early Ct values (Between 14 to 32) with a Sensitivity- 90%, Specificity- 100% and Accuracy- 98.99%, and certified by the ICMR. These are one of the best available values for any such test kit. The technology and its manufacturing are 100% indigenous,” Dr. Harpal Singh.
MoS, Shri Sanjay Dhotre said, “I am confident that this technology will revolutionize the COVID test availability in the country. I am glad to know that the kit has been developed entirely using the internal resources at IIT Delhi.”

![Minister of State for Education Shri Sanjay Dhotre launched a Rapid Antigen Test kit for COVID-19](image-url)

He informed that Prime Minister Narendra Modi-led government is focused on Atmanirbhar Bharat through research, development, and innovations. The focus on research in National Education Policy, National Research Foundation and initiatives like PM Research Fellowship will help further to improve the quality of research in our country. Technology plays an important role in wealth creation. IITs being premier technology institutions play a major role here.

He further asked the premier institutes to make the research centres and innovation parks in their campuses more vibrant and activate industry-academia linkages. For popularising science technology among general citizens, he asked the scientists and technologists to write more on these issues in print and other media, to deliver lectures for the general public, and to venture into the field of popular science fiction and non-fiction writing.

“Mechanisms to be developed for regular interaction of IIT professors and students with the school students in the vicinity, and vice versa, to inspire the school students to venture into the field of science and technology,” said Dhotre.

Speaking on this occasion, Prof. V Ramgopal Rao, Director, IIT Delhi said, “IIT Delhi had in July 2020 launched ₹399 RT PCR kit, which helped bring the RTPCR test costs to the current level. Using the technologies developed in the Institute, over 8 Million PPE kits have been supplied so far. With the launch of this Antigen based rapid test kit, we hope to make the diagnostics easy and affordable for the rural areas.”
IIT Delhi introduces new PG program in Public Policy, admissions from 2021 session


IIT Delhi has introduced a new PG program of Master in Public Policy. The admissions for this program would begin from the 2021-22 academic session, according to the official statement.

Indian Institute of Technology (IIT) Delhi has introduced a postgraduate (PG) program called ‘Master in Public Policy’ (MPP) in Science, Technology and Innovation Policy. The admissions for this program will start from the 2021-22 academic year. The duration of the program will be two years. Interested students can refer to the official notice of IIT Delhi, Master of Public Policy, given here.

According to the official notice, MPP is a research master’s program, and it aims to train professionals who can contribute to the development of a more robust and societally relevant STI policy ecosystem nationally and globally through direct engagement as practitioners in the policy space or through engagement with complementary spaces such as civil society and industry.

This program has been launched by the School of Public Policy (SPP). It was started as an independent school at IIT Delhi with its focus on Science, Technology and Innovation. The objective of the program is to provide rigorous interdisciplinary training to students from diverse backgrounds and to transform them into top-quality policy professionals and policy scholars.

IIT Delhi, Master of Public Policy: Eligibility Criteria

Students with five-year bachelor’s degree such as MBBS, BA LLB (Hon), BArch. or equivalent.

Students with four-year bachelor’s degree such as BTech, BSc (Ag), BVSc, or equivalent.

Candidates with post-graduate degrees such as MA, MSc, MPhil, Integrated MSc/MA, MTech or equivalent.

IIT Delhi, Master of Public Policy: Fee Structure

For regular students: Rs. 10,000 per semester

For sponsored students: Rs. 50,000 per semester

The MPP program would supply the human resources required to build institutional capacity and enhance the political processes on questions related to the intersectionality of STI and the public interest in India and beyond.
IIT Delhi’s Technology Innovation Hub (TIH) for Cobotics (Collaborative Robotics) known as ‘I-Hub Foundation for Cobotics (IHFC)’, recently completed its 1st year successfully.

The celebration event was addressed by the chief guest Prof. Ashutosh Sharma, Secretary, Department of Science of Technology (DST), GoI through video conferencing.

Prof. Sharma emphasised on the importance of Cobotics in solving problems associated with a large range of human and infra services. “In the last few years, Cobotics has evolved as a more acceptable technology since it focusses on collaboration between humans and machines rather than displacing human labour,” said Prof Sharma.

While sharing that the DST is in the process of setting up guidelines for Geo spatial mapping and surveying, he also hinted that a new policy and framework on flying Drones might be released soon by the Ministry of Civil Aviation.

Prof. Sharma also laid out a road map for the 25 such Technology Innovation Hubs created in the country by the DST focusing on a diverse range of technology domains.

Speaking on this occasion, Prof. V. Ramgopal Rao, Director, IIT Delhi shared that there is a significant development in the technology development at the IHFC in areas like Drone applications, Cobotics in Healthcare and creation of useful products and applications around the same.

It is noteworthy to mention that the DST had sanctioned Rs.170 crores to IIT Delhi under the National Mission on Interdisciplinary Cyber Physical Systems (NM-ICPS) to set up the IHFC, which was incorporated as a Section-8 company by the Institute in 2020.

Prof. Subir Kumar Saha, Project Director of IHFC highlighted the importance of participation from government, industry and academia, and how representation from each of them in IHFC Governing Board helped setting up and steering IHFC in the right direction during last one year. “We look forward to a higher participation from industry and institutions across the globe to realise our vision”, he further added.

IHFC CEO Mr. Ashutosh Dutt Sharma shared the progress made by the IHFC in the last one year and its commitment towards creating a robust eco-system for encouraging research led entrepreneurship and thereby building a strong foundation in technology innovation.

“To commemorate its first anniversary, IHFC has also launched its first grand challenge in the field of Medical Devices and Healthcare, inviting participation from individuals as well as start-ups for seed/scale-up investments in these domains”, he announced.
Prof. V. Ramgopal Rao pointed out that the IHFC has brought together researchers from 20+ institutes across the country to work on these grand challenge projects, to realize the potential of Cobotics.

Since its inception, IHFC has been working with its collaborating institutes and organisations and has launched 8 grand projects in the area of Medical Simulators, Healthcare Robotics, Rehabilitation Robotics, Drone Applications, Human Robot Interaction (HRI)-Intelligence, HRI-Control, Industry 4.0, Intelligent and Secured Communication to fund research and product development in these domains.

The concept of working with many researchers drawn from institutes/universities, R&D Centers, Start-ups/companies is challenging from the point of view sharing fund, equipment, manpower, etc. towards common goals of a grand project. IHFC is, however, determined to resolve those challenges to come up with deployable robotic products and demonstrate an ecosystem which is the need of the hour for the fact “Unity is strength”.

**IIT Delhi Establishes ‘Professors Narendra and Chandra Singhi Chair’**


Indian Institute of Technology (IIT) Delhi has established “Professors Narendra and Chandra Singhi Chair” endowed by its alumnus Abheek Singhi in honour of his academician parents.

Speaking of the ‘Professors Narendra and Chandra Singhi Chair’, Professor Ambuj Sagar, Founding Head, School of Public Policy at IIT Delhi said, "It is an honour for the School of Public Policy to be the home to the Professors Narendra and Chandra Singhi Chair. The School's mission is to strengthen public policy research and education to help better marshal scientific and technical knowledge to address major societal challenges, which perfectly aligns with Abheek Singhi's objective in establishing this Chair in his parents' memory. I am sure that the distinguished academic careers of his parents will also serve to inspire the faculty member who holds the Chair”.

Prof Narendra Kumar Singhi had a career focusing on Sociological Theory, Sociology of Development, Education, Health and Gender.

He was a scholar, a visiting fellow at Cambridge University; Maison De Sciences, Paris; Indian Institute of Advances Studies, Shimla and a visiting professor at the University of London and the University of West Indies.

He was the Head of the Department of Sociology at the University of Rajasthan and a senior fellow at the Institute of Development Studies. Prof Singhi has authored over 10 books and numerous papers in international and Indian journals.
Prof Chandralata Singhi taught Chemistry for nearly 35 years focusing on organic chemistry at Maharani College and Kanoria College, Jaipur.

She did her PhD on Chemical studies on Indian medicinal plants and published several papers on the topic.

IIT Delhi introduces ‘Professors Narendra and Chandra Singhi Chair’

Speaking of his purpose in establishing the Chair, Mr Abheek Singhi (BTech in Chemical Engineering, 1995 Batch) said, “The solutions to all the complex problems that the world faces today are going to come not from only Science / Engineering or only Liberal Arts / Humanities – the solution lies at the intersection of the two. I experienced the complementarity of the Arts and Sciences observing my parents – who were Professors of Sociology and Chemistry respectively. This belief got reinforced through my experience at IIT Delhi (and IIM A) and then my experience at BCG. The purpose of setting the chair is to promote excellence in teaching and research to solve complex problems like climate, health, education that require a multi-functional approach. The Chair is named after my parents Prof Narendra Kumar Singhi and Prof Chandralata Singhi who were academicians in Sociology and Chemistry respectively”.

Mr Singhi is a Senior Partner and Managing Director with The Boston Consulting Group and has led BCG’s Consumer and Retail practice in Asia-Pacific and is part of the Global Practice Leadership Team. He was nominated as a BCG Fellow in 2016 to explore innovation emerging from digital technologies in Asia.

He has also coauthored books titled The $10 Trillion Prize (published by Harvard Business Review Press) and Shaping India’s Future. He has written several reports on the Indian economy across sectors and is a frequent contributor to national /international publications and a speaker at leading business conferences and seminars.
IIT Delhi to develop training and research capacity on sustainable mobility

The new PG course on traffic safety will bring together professionals from multiple disciplines like engineering, planning, medical, science and humanities and train them on developing safe and sustainable mobility leading to the enhancement of overall human life quality.

The Indian Institute of Technology in Delhi (IIT Delhi) will augment training and research capacity on sustainable mobility for India and other countries.

It has established a new centre that will focus on producing resources to "address road transport and traffic safety in India and regions with similar socio-economic conditions". The centre will offer know-how on developing safe transport infrastructure.

Called the Transportation Research and Injury Prevention Centre, it will offer research and post graduate courses in areas such as road planning and designing, road use behaviour associated with traffic safety and sustainable transport systems, and safety aspects of new vehicle technology.

"The centre would be training the human power and produce specialists in safe and sustainable transport. It aims to attract the best faculty, students, and staff," the IIT said.

It said the new post-graduation course on traffic safety will bring professionals from multiple disciplines like engineering, planning, medical, science and humanities to one platform and train them on "developing safe and sustainable mobility leading to the enhancement of overall human life quality."

The new centre is an upgradation of the existing transportation research and injury prevention programme, founded by late Prof Dinesh Mohan. Mohan died of covid-19 late last month amid a raging second wave of the pandemic. Mohan, was a world-famous expert on traffic safety and human tolerance to injury.

After Mohan passed away, IIT Delhi’s director had expressed his willingness to create a specialised centre, which has now been approved by the board of governors of the institute.

IIT Delhi is among India’s top universities and in the recently announced world university rankings secured the 185th spot. It was adjudged the second-best varsity from India behind IIT-Bombay and ahead of Indian Institute of Science.

IIT Delhi to launch MS (Research) programme in transportation safety

IIT Delhi is also converting its Transportation Research and Injury Prevention Programme into a centre.
Indian Institute of Technology (IIT) Delhi is set to launch a new Master of Science (Research) programme in the field of transportation safety. The existing transportation research and injury prevention programme (TRIPP) is being converted into a centre, the Transportation Research and Injury Prevention Centre (TRIP-C), and the MS (Research) will be offered by it.

The centre will offer academic programmes in the field of transportation and road safety to equip professionals with skills for developing and maintaining safe transport infrastructure including the vulnerable road users.

The new MS (Research) programme will train students and professionals in the field of transportation safety and prepare the students for research careers. It is open to applicants from a wide range of fields including engineering, planning, medicine, science and humanities.

“The Master’s programme will offer a unique blend for professionals from varied backgrounds...to be trained with the knowledge of developing safe and sustainable mobility leading to the enhancement of overall human life quality”, said K Ramachandra Rao, coordinator, TRIPP.

“The forthcoming centre has a unique template on how to run an interdisciplinary programme successfully, would aim to achieve greater heights through core research themes that would endeavour to develop standards for safe transport and urban mobility options”, he added.

TRIPP has been running at the institute since 2002 as an interdisciplinary programme.

**IIT Delhi invites applications for 3-month e-vehicle technology course**


IIT Delhi has invited applications for the online short-term course for fresh graduates and working professionals.

Indian Institute of Technology (IIT) Delhi has invited applications for its three-month online course called “Advanced Programme in "E-Vehicle Technology”.

The course offered by IIT’s Continuing Education Programme (CEP) will be entirely online. The last date to apply for the course is July 28 and teaching begins in September.

After attending the programme, students will have a “basic comprehensive view of the e-vehicle technology”, according to the institute’s page on the course. IIT Delhi has also launched a full-fledged MTech in e-mobility and will be admitting students to the programme from 2021.

The three-month online version will help in addressing the training and development needs catering to “industry 4.0 and enable the participants to build required skill set, capabilities and knowledge in the e-mobility domain”, says the page.

**IIT Delhi online course details**

The programme is for fresh graduates who aspire to work in the sunrise sector of electric vehicles. They will get a comprehensive overview of the technology space.
Also, targeted for working professionals at all levels specifically professionals working in research and development space.

The course is one of a batch of new online courses started by IIT Delhi since it launched the Enabling Virtual Interactive Dynamic learning for Youth Advancement, eVIDYA, at the institution’s fifty-first convocation in November, 2020.

The IITs have been providing online teaching via the National Programme on Technology Enhanced Learning, or NPTEL, a collaborative effort between several IITs and led by IIT Madras. The NPTEL has now been subsumed within the education ministry’s e-learning platform, Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM).

However, several IITs, including IIT Bombay, IIT Madras and IIT Delhi, have independently launched e-learning platforms and are offering courses on them either by their own faculty or in collaboration with other private organisations. In the second case, the certificates are awarded jointly. In February, IIT Delhi had offered a six-month online course on digital marketing.

**KC Iyer, IIT-Delhi professor and brain behind several infra projects on campus, dies of Covid**


Associate Dean (Infra-Electrical) Abhijit R Abhyankar said Iyer and his family had contracted the virus around April 25.

![KC Iyer, Dean Infrastructure at the Indian Institute of Technology, Delhi.](image)

K C Iyer, Dean Infrastructure at the Indian Institute of Technology, Delhi.

K C Iyer, Dean Infrastructure at the Indian Institute of Technology, Delhi, and Professor at the Department of Civil Engineering, died after a long battle with Covid Saturday. He was 60.

“We have lost Prof K C Iyer, our serving Dean (Infrastructure), to Covid today. He had been in the ICU since May 2. Prof Iyer was such a valuable member of the community and the administrative team
and no words of sorrow can explain what we are feeling. Every construction activity you see on the campus bears his signature. Personally, it’s a great loss to me,” IIT-D Director V Ramgopal Rao said in a communication to teachers, students, and staff on Saturday.

Associate Dean (Infra-Electrical) Abhijit R Abhyankar said Iyer and his family had contracted the virus around April 25. “His wife suffered a stroke around two months ago, so to take care of her, the entire family was involved in taking her to hospital. Possibly due to that, they contracted Covid. In some days, his health deteriorated, and he was admitted to Artemis Hospital in Gurgaon. He was put on ventilator,” he said.

Iyer is survived by his wife, son and daughter.

“He had been Dean Infrastructure for three years and Professor here for around 20 years. Under his tenure, we had initiated infrastructural projects worth Rs 700 crore. He was overseeing construction projects of around 1.8 million square feet currently. This included a Research & Innovation park, faculty housing, engineering blocks, among many others,” Rao told The Indian Express.

Iyer received his BTech from IIT-BHU, MTech from IIT-Kanpur and PhD from IIT-Madras. Before joining academics, he worked for 15 years in various organisations like Mazagon Dock Limited and Defence Research and Development Organisation (DRDO).

Abhyankar said Iyer was a “gem of a person”. “He was a stalwart in the area of building contracts and contract management. He was instrumental in getting new constructions on campus. He would sit with architects and CPWD. Some of the projects we were working on are on the verge of completion and we were expecting he will inaugurate them, but unfortunately, that can’t happen,” he said.

“He was also an expert in arbitration settlement. Judges from the Supreme Court and High Court would employ his services to get the arbitration done. We were in discussions with the Minister for Urban Development and were thinking of working with the Central Vista project. But now that he is no more, I don’t think that will happen,” said Abhyankar.

IIT-D Professor Arup Roy Choudhury, Former Chairman of NTPC (National Thermal Power Corporation) and NBCC (National Building Construction Corporation), was a PhD student of Iyer’s before becoming his colleague. “We both were very proud to be called Civil Engineers in an ecosystem where a Civil Engineer is not fashionable anymore... KC was a very hardworking and sincere individual who would never cut corners or allow anything which was not up to his high standards,” he said.

**IIT-Delhi to offer new MTech course in electric mobility from this year**


The MTech course in Electric Mobility will be offered by the institute’s Centre for Automotive Research and Tribology (CART). The programme will cover key aspects related to electric vehicles,
drivetrain, chargers and charging infrastructure, battery energy storage systems, battery management system, among others.

The Indian Institute of Technology (IIT) Delhi will start a new postgraduate (PG) programme in electric mobility from the academic session 2021-22. The MTech course in electric mobility will be offered by the institute’s Centre for Automotive Research and Tribology (CART).

The programme will cover key aspects related to electric vehicles, drivetrain, chargers and charging infrastructure, battery energy storage systems, battery management system, reusability of energy storage elements, reliability, automotive health monitoring, automotive NVH (Noise, Vibration, and Harshness), vehicle dynamics, autonomous and connected vehicles, vehicular telematics, and materials for an electric vehicle, along with hands-on practice and design in laboratories.

Candidates with 4-years bachelor’s degree in electrical engineering, electrical and electronics engineering, mechanical engineering, industrial engineering, production engineering, mechatronics, automobile, manufacturing science/engineering, and GATE qualified in either electrical engineering (EE) or mechanical engineering (ME) or production and industrial engineering (PI) disciplines will be eligible to apply for the programme. Besides, sponsored candidates from various industries/academia/government organisations can also apply.

The graduates are expected to find employment in industries related to electric vehicle OEMs (Original Equipment Manufacturer), automotive industry, battery (pack and module) manufacturing units; BMS industry (smart and cloud-based BMS); e-motor design and manufacturing industry; converter and inverter industry; and EV chargers industry.

BK Panigrahi, head, CART said, “The new course has been designed with the active participation of leading professionals from academia and industry. The students will be exposed to work on various simulation software and HIL platforms.”

**DAKSH & IIT Delhi Collaborate For Interdisciplinary Research and Building Solutions for the Judicial System**


Leveraging the power of interdisciplinary research, technology and community of practice for innovators, researchers & policymakers to accelerate reforms in the Indian judicial system, the “DAKSH Centre of Excellence (CoE) for Law and Technology” at Indian Institute of Technology (IIT) Delhi has kickstarted its first three projects. These are “Evaluation of User Interface (UI)/ User Experience (UX) for select Indian High Court websites”, “Case Flow Management in India via Simulation Modelling” and “Cheque Bouncing Case Analysis”. These projects attempt to use analytical frameworks from different disciplines to build tools for a better understanding of the Indian judiciary.

The research produced by the CoE will be interdisciplinary, drawing from various domains like Operations Research, Economics, Public Policy, Design Studies, Statistical Techniques, Data-based
Modelling, Natural Language Processing, and Machine Learning. The CoE will design, innovate, and enable the building of technology to translate research into action tools and solutions.

“We are starting with simple but gargantuan issues for our legal system. For example – through steps like DMAIC (Define, Measure, Analyse, Improve and Control), we will analyse the status of case-flow management and suggest improvements. The CoE’s analysis on cheque-bouncing cases will help us engage with the Supreme Court’s committee to examine the acceleration of the disposal of cheque bounce cases across India. We are also conducting a detailed study on the User Interface (UI) and User Experience (UX) of the websites of six High Courts of India – Delhi, Bombay, Calcutta, Madras, Madhya Pradesh, and Karnataka. We will analyze the accessibility and availability of information on these websites and suggest changes. Through many other such projects, we aim to make the CoE a hub for innovative research and implementation models for the justice system,” said Professor Nomesh Bolia, Coordinator – Centre of Excellence for Law and Technology.

“Establishing a dedicated Center of Excellence for Law and Technology has been an exciting journey for us. Since the launch, we’ve seen some major developments in our program, and one of the biggest amongst those has been bringing together a mentors’ group with esteemed personalities such as Dr C.K.Mathew – IAS (retd) & former Chief Secretary – Govt. of Rajasthan, Prof. Daniel Martin Katz – Scientist, Technologist & Professor, Mr. Rahul Matthan – Tech Policy ThinkTank & Partner at Trilegal, Dr Roland Vogl – Executive Director of Stanford Program in Law, Science and Technology at Stanford Law School, and Mr. Vikramjit Banerjee – Additional Solicitor General of India. We also recently organised our first public event – a virtual session on ‘Modelling the Law & Justice System’ with Prof Daniel Martin Katz,” said Surya Prakash BS, Programme Director, DAKSH.

The CoE is ongoing at IIT-Delhi and is has wide visibility in the institution with a mix of technology and legal expertise aiming to resolve some of the biggest challenges of the Indian judiciary through its interdisciplinary approach.

**PM congratulates IIT Bombay, IIT Delhi, IISc Bengaluru for top-200 positions in QS World University Rankings 2022**


*IISc Bengaluru ranked first in the world for research*
Prime Minister Narendra Modi has congratulated IIT Bombay, IIT Delhi, and IISc Bengaluru for top-200 positions in QS World University Rankings 2022. In a tweet, the Prime Minister said: “Congratulations to @iiscbangalore, @iitbombay and @iitdelhi. Efforts are underway to ensure more universities and institutions of India scale global excellence and support intellectual prowess among the youth”.

Quacquarelli Symonds, global higher education analysts today released the 18th edition of the world’s International University rankings.

Three Indian Universities have achieved top-200 positions in QS World University Rankings 2022.

The IISc Bengaluru ranked number 1 in the world for research.

Education Minister Shri Ramesh Pokhriyal ‘Nishank’ congratulated IIT Bombay for securing 177th position, IIT Delhi for securing 185th rank and IISc Bengaluru for securing 186th position in universities rankings.

Pokhriyal said that India is taking a leap in the field of education and research and is emerging as a ‘vishwaguru’. “We are equally proud to have a Guru like Prime Minister Shri Narendra Modi who has constantly been thinking about the welfare of students, faculty staff and all other stakeholders associated with the Indian Education sector,” he added.

The Minister further said that “initiatives such as National Education Policy–2020 and Institute of Eminence are instrumental in ranking our colleges and institutes globally.

This can be felt by looking at the university rankings declared by QS and Times Group”.
“Doesn’t Make Me Happy”: IIT Delhi Director on Improving QS World University Rank

IIT Delhi Director V Ramgopal Rao on Wednesday said the institute’s performance in the recently-announced Quacquarelli Symonds (QS) World Rankings 2022 does not make him happy.

Indian Institute of Technology (IIT) Delhi Director V Ramgopal Rao on Wednesday said the institute’s performance in the recently-announced Quacquarelli Symonds (QS) World Rankings 2022 does not
make him happy although, adding that the top institutes in India can be among the top 50 institutions of the world, if they improve their performance in just a few of the parameters used in the international rankings -- international faculty and students.

As per QS World University Rankings 2022, IIT Delhi is India’s second-best university. The institute has improved its position from the 193rd rank to 185 since last year, overtaking IISc Bangalore in the process.

“IIT Delhi has improved its ranking by 8 places and we have shown an improvement in 5 out of 6 ranking parameters. But it doesn’t make me happy or elated. Our top institutions in India can be among the top 50 in any of the World University Rankings,” Prof Rao said in a note to his colleagues, students, and staff members.

IIT Delhi has scored lowest in international faculty and international students – two parameters that contribute 5 per cent each to the total weightage in the QS rankings.

“IIT jobs are government jobs. Recruiting international faculty is still riddled with policy issues at all levels...but we need to go global in our faculty hiring. We are trying, but it takes time. It can’t be changed overnight,” he added.

IITs need to admit more international students, but not at the cost of Indian students who wish to join these institutes, Prof Rao said.

“India simply needs to create a lot more high-quality institutions so the pressure on IIT admissions comes down,” he added.

Pointing out that 50 per cent of the scores for QS rankings is reputation-based, the IIT Delhi said Indian institutions can improve their academic reputation by making themselves more visible. “We need to talk about ourselves more and inform the public (both in India and abroad) about our research accomplishments. We simply need to be more visible ourselves. Outreach is important”.

Institutes must also improve their faculty to student ratio, another important parameter in QS rankings that contributes 20 per cent, Prof Rao said. However, finding “IIT quality faculty” is a challenge, he said, as it is mostly restricted to Indians, or people of Indian origin. “The older IITs added 2500 additional students in the last 2 years because of EWS quota implementation. So we took a hit on this for reasons beyond our control,” he said.

“It’s important for all of us to have this perspective so we can educate general public about this. It’s also important for all of us to work together on this...you can replace IIT Delhi with Bombay or other top institutions from India, and the story remains the same,” Prof Rao said.
IIT-Delhi, IIT-Guwahati improve positions in QS World University Rankings 2022


IIT Delhi has improved its perception rankings as well with an improvement of 3 and 12 ranks in academic reputation and employer reputation, respectively while IIT Guwahati improved its position by 75 places this year.

IIT Delhi has shown an improvement in the scores of 5 out of 6 metrics this year thereby witnessing an overall improvement in its ranking in the QS world university rankings 2022.

As per the institute, they have improved its faculty-student ratio and therefore, witnessed a jump of 24 ranks globally. IIT Delhi has improved its perception rankings as well with an improvement of 3 and 12 ranks in academic reputation and employer reputation, respectively.

While commenting on the QS World University Rankings 2022, Prof V Ramgopal Rao, Director, IIT Delhi said, “IIT Delhi has a huge opportunity to further improve its rankings by focusing on perception and internationalisation metrics. We shall continue to contribute to India and the world through excellence in scientific and technical education and research. We are confident we will be able to further improve our rankings by focusing on our core strengths.”

Meanwhile, IIT Guwahati improved its position by 75 places this year and ranks 395 globally from 470 in 2021. The institute secured 41 rank globally (56 in 2021) in the ‘Research Citations per Faculty’ category, of the QS World University rankings 2022.

Speaking on this occasion, Prof TG Sitharam, Director, IIT Guwahati, said, “I congratulate the faculty, students and staff of IIT Guwahati for this remarkable growth in this performance which clearly shows that despite the pandemic, the institute has been working tirelessly to make such a global impact.”

A total of 35 Indian institutes were ranked in 2022 by the QS among which there were 5 new entrants this year. Globally a total 1673 institutions were analysed and 1300 were ranked.

IIT-Delhi researchers, forced to take down journal, insist Covid-19 being a lab product can’t be ruled out


Researchers from IIT-Delhi, along with KSBS, and DU’s Acharya Narendra Dev College, have asserted that the possibility of Covid-19 originating in a lab cannot be ruled out conclusively. The researchers were forced to take down their pre-print paper earlier following the backlash after its publication.
The researchers insisted that it is very hard to conclusively state whether Covid-19 is of natural or lab origin.

IIT Delhi researchers, whose paper was published in journal BioRxiv and then withdrawn, have again asserted that the possibility that Covid-19 could have originated in a lab cannot be conclusively ruled out.

In a statement issued after their research made waves again, the team of researchers led by Prof Biswajit Kundu said that they believed that “it is very hard to conclusively state whether this virus is of natural or lab origin”, unlike the publications which state that it cannot be of lab origin.

“Our findings are only restricted to the observation that the appearance of 4 different stretches of amino acid sequences (how ever short) in the host cell interacting with proteins of two completely unrelated viruses is more than a mere chance event,” the researchers said in their statement.

The team of researchers had earlier published a preliminary article in research journal

However, the article, which indicated the possibility of the coronavirus emanating in a lab, drew a lot of attention and criticism and was later withdrawn.

As their findings continued to make waves, the authors of the paper from KSBS, IIT Delhi and Acharya Narendra Dev College, University of Delhi, issued a statement to make their stance clear.

In a statement the researchers said, “In the earliest days of the COVID-19 emergency (pre-pandemic), we started our research aimed at understanding the uniqueness of this virus compared to its predecessor, the SARS-CoV-1.”

“To our surprise, we identified four small but unique insertions in the spike protein of this virus, while most other changes were substitutions. Interestingly, on further analyses, we found that three short inserts had similarity to the protein of similar function in some strains of HIV,” the researchers claimed.
They further added that, “Moreover, molecular modelling of the spike protein quaternary structure based on SARS-CoV-1 spike protein indicated that these four regions well-separated in the primary sequence of the protein occupied proximal positions and formed possible interaction interfaces, which could possibly explain receptor specificity.”

The researchers referred to their paper and claimed that, “In our analyses, the only virus genome which contained regions similar to all the four unique inserts was only HIV1, making us claim that these inserts are unique to SARS-CoV2 and not any other coronavirus.”

The researchers said that considering the emergency they decided to make the findings public as a pre-print.

However, the pre-print drew a lot of backlash.

“The pre-print drew so much of media attention in a matter of hours and the way things got twisted in public domain in the form of ‘Biowar’ and ‘Conspiracy theories’ etc. that we got completely puzzled. Our intention was to simply place our findings so that researchers around the world take some clues and devise suitable remedial measures (vaccines, diagnostics, neutralizing antibodies etc.),” they said.

The researchers added that “It was obviously a preprint and not a fully polished article. In view of all the criticisms, name-calling and unprecedented negative publicity; we decided to withdraw the preprint and follow the peer-reviewed publication process.”

However, the scientific journals now found it difficult to showcase the findings.

Talking about the difficulty in getting their manuscripts peer-reviewed, the researchers said, “Unfortunately, even though we incorporated all constructive criticisms received online in a revised manuscript, none of the journals we submitted it to were ready to consider the manuscript for peer-review, probably due to fear of negative publicity and deviations from the widely accepted views of the time.”

“Meanwhile, many of the unique findings of our study were published in bits and pieces by others and the major part became redundant, except for the controversy,” they added.

**IIT Delhi: BTech student’s death on June 1 was by suicide**


IIT Delhi administration confirmed to students in an email that the third-year BTech student’s death was by suicide.

A third-year student of mechanical engineering at Indian Institute of Technology (IIT) Delhi, Hari Prasath, died in his hostel on campus on June 1. The institute has confirmed in an email to the IIT community that it was death by suicide.
The email from dean students’ welfare, IIT Delhi, sent on June 4 said: "He was an introvert [student], His parents, friends and counsellors have confirmed that he was being treated for depression. A suicide note, handed over to the SHO confirms that this was death by suicide."

“He approached the hostel security guard after midnight, told him that he had poisoned himself and then fell unconscious. He was immediately rushed to the IIT Delhi hospital and from there to AIIMS but we were unable to save him,” said the email.

Prasath was undergoing treatment for depression on the campus. Until the end of the second year, Prasath was doing well at IIT Delhi. After that he began to struggle with studies, the letter said. Prasath had left all his class groups on messaging applications. He had also withdrawn from social media.

**No ‘F’ during COVID-19**

A section of students from the institute has issued a statement arguing that many reasons must have pushed him to take the drastic step. They statement says language barrier and cultural isolation is one of the major issues on campus. “The campus failed to become a place where our friend could feel a sense of belonging and was left with a very small circle of close friends with whom he could communicate,” it said.

The students had demanded a “fully empowered institute-level commission" with at least 50 percent members from students to investigate what happened to Hari Prasath. They demand that reports on past student suicides must be made accessible and all investigations into all suicides be thorough and time-bound.

"The efficacy of counselling services of IIT Delhi should be independently evaluated. Apart from targeted and general counselling sessions for students, the institute should also develop a mandatory sensitisation programme for faculty members," said the statement. They also demanded that "autonomous forums" be established for students from backward communities.

They also demanded a committee be formed to explore why a particular section of students belonging to a particular social and linguistic background remain absent from student clubs and bodies.

The students’ statement said that Prasath consistently received ‘F’ grades over the past and current semester. The students now demand the IITs do not award ‘F’ grade to any student during a pandemic.

**‘Suicides can be prevented’**

The letter from the institute finally said: “We would like to reiterate that suicides can be prevented. In Hari’s case, in spite of his own efforts (e.g., at seeking treatment on campus) we were unable to save him. But please know that there are other cases, where timely help – from the psychiatrist and counsellors, from friends, family and faculty – has been able to prevent such incidents. In order to prevent such losses in the future, we can all do more. Meanwhile, we hope that those who feel vulnerable will approach our counsellors on campus who are just a call/email away as well as YourDost who also offer chatbox sessions.“
The IITs have lost several students in the past few years. A first-year student of IIT Delhi died in hospital after a suicide bid on campus in 2019.

The IITs also lost a number of students to COVID. In April this year, a PhD student of IIT Delhi died of COVID-19 after going home. Also in April, an IIT Roorkee student in quarantine died after testing negative for the virus. In May, an IIT Kanpur student succumbed to the black fungus, an added complication brought on by COVID-19 treatment.

## IIT Delhi Develops Hydrogen-Fuelled Alternative to Diesel Generators


The technology has been developed in collaboration with Kirloskar Oil Engines Limited (KOEL), and the Indian Oil Research and Development Centre, the institute said.

Researchers at the Engines and Unconventional Fuels Laboratory, Indian Institute of Technology (IIT) Delhi have developed a technology and built “Hydrogen fuelled Spark-Ignition Engine Generator” for the utilization of hydrogen in internal combustion engines for zero-emission with higher thermal efficiency.

The technology has been developed in collaboration with Kirloskar Oil Engines Limited (KOEL), and the Indian Oil Research and Development Centre, the institute said.

The project was mainly funded by the Ministry of New and Renewable Energy (MNRE), and supplementarily funded by KOEL and IOCL R&D Centre. IIT Delhi and KOEL have jointly filed a patent application for the technology.

Diesel-fuelled internal combustion engine generator for electrical power generation emits carbon monoxide (CO), Hydrocarbon (HC), Smoke, Particulate Matter (PM), Oxides of Nitrogen (NOx) and Carbon dioxide (CO2) emissions resulting in a contribution to air pollution, the institute said.

“As Hydrogen does not contain carbon, the hydrogen-fuelled engine does not emit any carbonaceous emissions. The emission of ‘oxides of nitrogen’ can be controlled to ultra-low level using the appropriate technologies”, said Dr KA Subramanian, Principal Investigator of the project and professor at the Centre for Energy Studies, IIT Delhi.

IIT Delhi said the technology will be useful to the industries that are producing hydrogen as tangible or main products, to generate electrical power to meet their inhouse-power requirement.

The developed hydrogen engine can also be used in decentralized power generation for industries, buildings, etc, it added.

“If hydrogen infrastructure can be developed and made available in the future, diesel generators can be replaced with hydrogen generators for electrical power generation. It will help to control air pollution, especially in urban areas.” Prof Subramanian added.
IIT Delhi to Establish Department of Energy Science and Engineering

IIT Delhi is establishing a new department to expanding the scope and depth of activities being undertaken by the 45-year-old Centre for Energy Studies.

Indian Institute of Technology (IIT), Delhi is in the process of establishing a new department named “Department of Energy Science and Engineering” essentially for expanding the scope and depth of activities being undertaken by the 45-year-old Centre for Energy Studies (CES). The Institute’s Board has given its approval for the conversion of the Centre for Energy Studies into a Department of Energy Science and Engineering.

The new department is expected to provide a much-needed focus and visibility to the teaching and research activities of the Institute in the field of energy as it deserves for achieving the seventh sustainable development goal of meeting increasing energy requirements at affordable price in an environmentally sustainable manner and effectively contribute to the initiatives towards energy transition at the global level.
The department would offer suitable academic programs in the field of energy to prepare required manpower at all levels, attract the best faculty, students and staff and provide a platform for active and effective collaboration among faculty colleagues across the Institute and with other Institutions, IIT Delhi statement.

Besides continuing with three existing M.Tech. programs (including one sponsored by the International Solar Alliance for working fellows from different countries) presently being offered by the Centre for Energy Studies, the new department would offer an undergraduate degree program, i.e. B.Tech. in Energy Engineering starting from academic session 2021-2022, with an intake of 40 students qualifying JEE (Advanced).

Speaking of the new B. Tech. program, Prof. K.A. Subramanian, Head, CES, said, “There is a critical need to nurture manpower with the capacity to flexibly respond to various energy and environment related challenges in a holistic manner with required foresight and vision. The B. Tech. program in Energy Engineering is designed to equip the students with the necessary knowledge and skills to take up the energy sector challenges being faced by the humanity – improving energy access, supply quality and reliability as well efficiency of utilization, de-carbonization, and lowering cost of energy supply.”

The B. Tech. course curriculum is designed to lay a core foundation with a wide basket of electives in the area of energy as it aims to produce next generation leaders to contribute to the energy transition initiatives through core industry, academia and all other stakeholder entities. Besides highly unique sector specific skills the students are expected to possess other competencies such as environmental awareness and profound understanding of sustainability concepts.

Graduates of the B. Tech. program are likely to find the best technical jobs in core energy sector and in organizations engaged in a variety of activities pertaining to climate change, energy transition, energy access and security etc. and will also be apt candidates for higher studies in leading national and international institutions.