Home based COVID-19 Testing Kits? IIT Delhi, NCL Pune working on alternative testing methods for quick results

June 29, 2020 https://www.timesnownews.com/education/article/home-based-covid-19-testing-kits-iit-delhi-ncl-pune-working-on-alternative-testing-methods-for-quick-results/613678

IIT Delhi and National Chemical Laboratory, Pune are working on easier and quick testing methods including a home based testing kit for COVID19 which can be administered by the user himself at home.

IIT Delhi, NCL working on home-based testing kits for Covid

Home-based COVID-19 testing kits could soon be a reality with the Indian Institute of Technology (IIT) Delhi and the National Chemical Laboratory (NCL) Pune working on an alternative testing method which can not only be performed by individuals at home but will also deliver quick results.

The collaborative project with the NCL, which comes under the aegis of the Council of Scientific and Industrial Research (CSIR), has also received financial support from Microsoft India and is expected to be ready in a month's time.

According to the team, the project aims to develop an ELISA (Enzyme Linked Immunoassay) based diagnostic serological assay against COVID-19. If successful, it will create an economical, commercial process for manufacturing the antigens used in ELISA and home-based diagnostic kits to offer an effective, quick, robust and affordable diagnostic solution to manage the COVID-19 outbreak.

"Testing continues to be a challenge in managing COVID-19 and is likely to remain so for the years to come. Currently, Real-time Polymerase Chain Reaction (RT-PCR) tests detect genetic material to

perform coronavirus testing. However, such tests can be performed in laboratories only, require several hours, have low rates of specificity and sensitivity and pose risks related to specimen collection and sample handling," Anurag S Rathore, Professor, IIT's Department of Chemical Engineering, told PTI.

"Additionally, these tests cannot be performed by individuals at home. These risks can be minimized by developing IgG and IgM based ELISA assays and home-based testing kits," he added.

IgG is the most abundant immunoglobulin to be produced in response to an antigen and is maintained in the body after initial exposure for long term response. IgM is the first immunoglobulin to be produced in response to an antigen and is primarily detected during the early onset of disease.

"Coronaviruses are composed of several proteins including the spike (S), envelope (E), membrane (M), and nucleocapsid (N). This assay we propose will utilizes the microplate-based enzyme immunoassay technique," said Rathore, who is also the institute's Dean, Corporate Relations.

"The technology for purposed ELISA assay for detection of coronavirus and robust and economical expression systems for production of N and S protein antigens can be transferred to national diagnostic centres and private companies specializing in developing home based kits or point-of-care devices, respectively," he added.

While Rathore did not comment on what will be the approximate cost of the test kit, he said, "it will be considerably cheaper than tests being performed now. However, we will have some concrete results in a month's time and we will be able to analyse only then".

IIT Delhi is the first academic institute in the country to get a nod from the Indian Council for Medical Research (ICMR) for its COVID-19 test kit. The institute has given non-exclusive open licence to Bengaluru-based biotechnology firm Genie Laboratories for commercialising the test, but with a price rider of Rs 500 per kit.

The kits are being manufactured at a facility at the Andhra Pradesh MedTech Zone (AMTZ) in Vishakhapatnam, and are expected to be available in the market next month.

According to the team, the current testing methods available are "probe-based" while the one developed by the IIT team is a "probe-free" method, which reduces the testing cost without compromising on accuracy.

Using comparative sequence analyses, the IITD team identified unique regions (short stretches of RNA sequences) in the COVID-19 and SARS COV-2 genome.

IIT Delhi goes online for next semester, to call students to campus in December

June 26, 2020 https://timesofindia.indiatimes.com/home/education/news/iit-delhi-goes-online-for-next-semester-to-call-students-to-campus-in-december/articleshow/76640520.cms

IIT-Delhi has decided to go online for the coming semester and may only call students to the campus in December. The institute is likely to abide by a report on post Covid-19 strategy prepared by a sub-committee of six IITs. The report, submitted to the Standing Committee of IIT Council (SCIC) on June

15, and accessed by TOI, had suggested that the UG admissions should be as per JEE schedule where the selection process and interviews will be online and all newly admitted students will start the programme in December 2020 - January 2021 timeframe.

The report has also suggested that all two-year PG programmes to be compressed in 18 months with each institute to have flexibility in conducting the program over 3 regular or 4 reduced semesters; while MBA and other similar programmes may move to a complete online mode for the first semester and start as per schedule.

According to a senior official at IIT-Delhi "we are going to follow the report as the number of cases is high in Delhi and we want to make sure that students' safety is paramount."

The sub-committee report also suggested that of the Research Scholars (PhDs), post-docs and PG students engaged in research only those who require experimental research facilities and institute resources shall be permitted to return to the campus, on a voluntary basis.

It added that the IITs will allow other theoretical, mathematical and computational research activities to be conducted remotely and that "no individual shall be forced to return to campus; their return to campus has to be voluntary, in consultation with their research advisors / supervisors, and other relevant Institute authorities."

For those IITs who did not complete their 2019-20 semesters they will have their teaching completed through online mode, and through evaluations like viva, online quizzes, and online exams; and all those exam that are required to be conducted through physical presence, should be done when it is safe for students to travel.

For the 2020-21 semester students the report said, classes for all UG and PG programs to be conducted in online mode for all courses and only those students who have poor connectivity or may not have access to internet may be permitted to return to campus but they will take the online classes from their hostels.

For the new students, their laboratory courses will be deferred to the summer of 2021 and be completed in an intensive 2-3 week period.

For those students coming back to campus, IITs are to make sure that quarantine, isolation and travel safety measures be taken care of.

"IIT Delhi will facilitate for an adoption and implementation of cheaper COVID-19 testing kit, developed by IIT Delhi" and there would be a testing of all IIT community members.

IITs have been asked to review the situation again in October, 2020 and add more measures if required.

UN World Food Programme and IIT Delhi come together to enhance food safety nets

June 24, 2020 https://reliefweb.int/report/india/un-world-food-programme-and-iit-delhi-come-together-enhance-food-safety-nets

The United Nations World Food Programme (WFP) and the Indian Institute of Technology (IIT), Delhi come together to develop innovative solutions to enhance the efficiency and effectiveness of the Government's food safety nets. The partnership will create sustainable models that can be replicated across the country to support governments in their work on food and nutrition security.

"This partnership is of strategic importance, as it combines expertise in on-ground implementation with research and development to further strengthen systems that will impact the lives of millions of vulnerable people," said Bishow Parajuli, WFP's Country Director in India. "We hope that the evidence generated under this collaboration not only supports other states in India but can also be replicated in the region."

The partnership will use advanced analytics and operations research to develop practical solutions that support long term strategic planning of procurement, storage and movement of food grains by agencies such as the Food Corporation of India (FCI). Cost-effective supply chain networks for distribution of food grains under the Targeted Public Distribution System (TPDS) will also be developed. This will be especially relevant for states like Uttarakhand where maintaining consistent availability and supply of food grains year-round is a challenge due to factors such as difficult terrain, limited availability of transporters, restricted windows for transportation and disintegrated storage spaces.
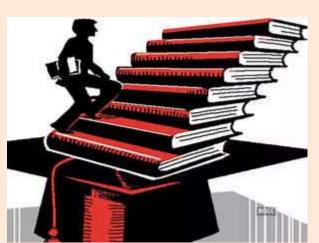
"This strategic partnership is particularly important as it has the potential to result in advanced solutions for key problems of India and the world. It also manifests our intent to work closely with the government and other public agencies for systemic reforms," said Professor V. Ramgopal Rao, Director, IIT Delhi. "I am confident this partnership will showcase the extent of enhancements possible in our public systems when such partners join hands."

Working together with the state and national governments, IIT Delhi and WFP will collect and analyse important operational data such as current stocks, projected harvest yields and consumption figures to develop TPDS supply chain networks that will ensure a steady supply of food grains in a cost-effective and efficient manner.

IIT directors' panel suggests online first semester, 18-month PG programme

June 23, 2020 https://economictimes.indiatimes.com/industry/services/education/iit-directors-panel-suggests-online-first-semester-18-month-pg-programme/articleshow/76538351.cms

The standing committee of the IIT Council had set up a sub-committee of six IIT directors to devise a 'post Covid-19 Minimum Common Strategy' to address operational challenges in admissions, evaluation and assessment of students.

Meanwhile, IIT Delhi has proposed to bring in its cost-effective new probe-free testing kit for pool testing of all returning students across the IITs.

A committee of IIT directors has recommended that the first semester for all courses at the Indian Institutes of Technology be conducted online and students be given the option to drop a year/semester unconditionally, as part of strategy to settle the upheaval caused by Covid-19.

Among other recommendations made to the government, the panel has said that the twoyear post-postgraduate programme should be compressed to 18 months over three regular or four reduced semesters, all laboratory courses should be deferred to an intensive twothree-week programme around the summer of 2021, and the academic programme for all new PG students joining the IITs should be started only in December 2020-January 2021, ET has learnt.

The standing committee of the IIT Council had set up a sub-committee of six IIT directors to devise a 'post Covid-19 Minimum Common Strategy' to address operational challenges in admissions, evaluation and assessment of students.

This committee has submitted its report and it is under discussion with all IITs. The final approval from the IIT Council, chaired by HRD minister Ramesh Pokhriyal Nishank, is awaited.

The only exception to the off campus/online mode for the first semester is proposed for current research scholars (PhDs), postdoctoral researchers and PG students engaged in experimental research, and students who do not have adequate facilities to take up online classes at home.

The IITs have been asked to facilitate the return of such students, and also ensure that online classes are attended in hostels following full Covid-19-related safety protocol, including prior testing. It has been emphasised that no individual shall be forced to return to the campus.

Navigating The Way Forward

Semester 1 for all UG and PG programmes be conducted online, with evaluations through viva, online quizzes, home and online exams

Students be allowed to drop semester and year

Defer admissions of PG students and hold online selection process. Begin PG academic year in Dec 2020

Two-year PG programmes be compressed into 18 months. MBA and similar programmes to start on schedule with an online first semester

Only research scholars and students with poor internet access be allowed to return to campus on a voluntary basis

Projects in BTech, MTech preferably be theoretical and computational that can be done remotely

Situation to be reviewed in October

For completion of second semester of 2019-20, hold online classes and assessments, defer in-class exam and lab work for later in the year

ADMISSIONS & THE NEW SESSION

The committee has said that the JEE schedule should be followed for undergraduate admissions, while PG admissions should be deferred and be held in an online format. All new PG students will begin the academic programme in a December2020, the panel has recommended.

This committee, which has on board directors of IIT Delhi, Madras, Kanpur, Guwahati and Triupati, has said that for first-year undergraduate students, the institutes can facilitate change in branch on performance over the first one, two or three semesters. Further, IITs can do away with the option of branch change for the upcoming UG class, it has suggested.

COMPLETION OF ONGOING SESSION

The conclusion of second semester of 2019-20 in many IITs has become tricky. The panel has suggested that subject to the senate decisions, teaching should be completed online, along with other evaluations through viva, online quizzes, online exams, etc. It has said that all pending examinations that are required to be conducted through physical presence should be deferred to when it is deemed safe for students.

IIT-Delhi, United Nations to offer research-based solution to storage, supply of food grains

June 19, 2020 https://indianexpress.com/article/education/iit-delhi-united-nations-to-offer-research-based-solution-to-storage-supply-of-food-grains-6466690/

The IIT and UN aim to optimise the supply chain and analyse important operational data such as current stocks, projected harvest yields, and consumption figures. Through this research, the institutes will identify the challenges and constraints and offer solutions.

The United Nations World Food Programme (WFP) India and Indian Institute of Technology (IIT) Delhi have collaborated to develop innovative solutions for the government's food safety nets through operations research, the institute informed. The collaboration aims to support governments in achieving food and nutrition security targets.

"The overall objective of this partnership is to use advanced analytics and operations research to develop practical solutions that support long-term strategic planning of procurement, storage, and movement of food grains by agencies such as the Food Corporation of India (FCI) and at the same time create cost-effective supply chain networks for distribution of these food grains under the Targeted Public Distribution System (TPDS) at the state level," the IIT informed through an official statement.

This will be especially relevant for states such as Uttarakhand, where maintaining a consistent availability and supply of food grains year-round is a challenge due to factors such as difficult terrain, limited availability of transporters, restricted windows for transportation and disintegrated storage spaces, the IIT added.

Through their research, both IIT-Delhi and WFP will work with the state and central government. The IIT and UN aim to optimise the supply chain and analyse important operational data such as current stocks, projected harvest yields and consumption figures. Through this research, the institutes will identify the challenges and offer solutions.

 "This partnership is of strategic importance, as it combines expertise in on-ground implementation with research and development to further strengthen systems in terms of sustainability and accountability to impact the lives of millions of vulnerable people. We hope that the evidence generated under this collaboration not only supports other states in India but can also be replicated in the region," Bishow Parajuli, Country Director of World Food Programme India, was quoted as saying by the IIT.

V Ramgopal Rao, Director, IIT-Delhi said, "IIT-Delhi has strong research activities in several relevant areas of research such as nutrition, Operations Research, Public Systems and Policy. IIT-Delhi also takes pride in the societal impact of its research and innovations, which is a core part of its vision and strategy. This strategic partnership is particularly important from this perspective and has the potential to result in advanced solutions for key problems of India and the world. It also manifests our intent to work closely with the government and other public agencies for systemic reforms. I am

confident this partnership will showcase the extent of enhancements possible in our public systems when such partners join hands."

Testing Kits to Low Cost Ventilators, How IITs Have Been Instrumental In Battling COVID

June 18, 2020 https://www.republicworld.com/india-news/general-news/testing-kits-to-low-cost-ventilators-how-iits-have-been-instrumental.html

IITs across the nation have been very instrumental in providing ammunition against COVID19. In the past three months, IITs have developed several innovations

IITs across the nation have been very instrumental in providing ammunition against COVID19. In the past three months, IITs have developed several innovations that have proved to be fruitful. Talking about several innovations made by the IITs, Director Indian Institute of Medical Sciences (IIT) Delhi told Republic TV, in the past months 20 research teams are working to help fight this battle against COIVD.

He added that instead of going back home amid pandemic, his students and faculty came forward and offered to work to help the nation. The IITs have developed many innovations such as testing kits, low-cost ventilators, infection proof fabric and digital stethoscope.

Talking about the COVID testing kit which will cost around Rs 500 only, Prof Rao told Republic TV, "The cost of our kit is Rs 500, we have licensed it to six industries now. It is only a matter of days to weeks now, this technology will be out in the market." "ICMR has already approved this test, being low cost is the USP of the technology. We will be able to put out a million testing kits in the society and change the paradigm of testing," he added.

Talking about the low-cost ventilators developed by IIT, which will cost Rs 70,000 in comparison to ones in the market that can cost around Rs 4 lakhs he said that his institution is working with AIIMS and soon the product will be inducted in the market. "We have very low-cost ventilators. We are working with AIIMS we have made considerable progress. It is on the way to getting inducted in the hospitals," he said.

Explaining about the infection proof fabric developed by IIT, he said masks made by this fabric costs around Rs 45 and the quality is almost equivalent to N-95 masks which are expensive in comparison.

"The infection proof fabric makes n-95 equivalent masks. They have anti-bacterial/viral coatings. These are very low-cost products. These are also washable masks can be washed up to 50 times and be reused. IIT Delhi masks are being sold all over We have sold 10lakh masks in last six weeks. 26 states have imported these masks. These are also startups. These will be the future large companies which everyone will be proud of," he said

Asserting that India has been independently fighting the war against COVID he said, "I fully agree with you. We have been in self-discovery mode. We have rose up to the occasion. My students said we don't want to go home, we want to work in these r areas. at least 20 research groups have started working in the campus on COVID related technology." With 12,881 fresh cases, the coronavirus tally in India rose to 366,946 on Thursday. So far 2,262 people have succumbed to the deadly virus.

IIT Delhi Signs Agreement with Automotive Major to Support In-House Startups

June 17, 2020 https://www.ndtv.com/education/iit-delhi-signs-agreement-automotive-major-support-in-house-startups

Under the agreement between Indian Institute of Technology Delhi (IIT Delhi) and Sona Comstar, innovative startups will receive mentorship and financial support up to Rs. 80 lakh

Indian Institute of Technology Delhi, or IIT Delhi, has signed an agreement with automotive major Sona Comstar to support innovative startups in the institute. IIT Delhi startups will receive mentorship and funds up to Rs. 80 lakh under this agreement, with an option to retain IP (Intellectual Property). The institute has said in a statement that this is a "first of its kind industry support programme" in the field of mobility.

According to Mr. Kiran Deshmukh, Chief Technology Officer of Sona Comstar, the collaboration will "enable creation of new IP" and innovative "Make-in-India products".

"IIT Delhi wants to engage with the industry to strengthen startup programmes in academia as this is a good way to quickly bring new technologies to market," Prof. V. Ramgopal Rao, Director, IIT Delhi said in a statement.

The partnership is an opportunity for innovation, design, and development of indigenous technologies, according to Dr. Anil Wali, Managing Director of Foundation for Innovation and Technology Transfer (FIIT), IIT Delhi.

Group of IIT-Delhi teachers to HRD: Higher education institutes should induct new students in January

As for the lost academic time, the teachers assure it can be made up "within twelve to eighteen months of the end of the crisis".

The group has also argued that the time till January 2021 should be utilised by the higher education institutions to "come together to pool resources and develop strategies for optimal online delivery and evaluation".

A group of teachers at Indian Institute of Technology (IIT) Delhi have pitched for higher education institutions to induct new students in January 2021 and put off face-to-face classes for a year in a proposal submitted to the HRD Minister this month.

The declaration of the coming autumn semester as a 'zero semester', the proposal states, would give institutions the time to "complete the formalities" for the current semester/academic year, which was upended by the Covid-19 outbreak, and upgrade their infrastructure for online teaching.

As for the lost academic time, the teachers assure it can be made up "within twelve to eighteen months of the end of the crisis".

"This may be achieved through a combination of, the judicious use of existing online resources (such as NPTEL and Ekalavya), moving partly to the flipped mode of instruction, reduction of vacation periods, creating online resources for primary school students etc," states the proposal accessed by The Indian Express.

Among the signatories to the proposal is Nalin Pant, a professor at the department of chemistry at IIT-Delhi, who is also a member of the institute's Board of Governors. He confirmed to this newspaper that the document was sent to the HRD minister this month and also submitted to the IIT Council for consideration, through the institute's director.

The suggestion for the six-month delay has been justified on the ground that the return of students to the classrooms can put the teachers, their parents, and grandparents at risk. "Given the typical arrangements in classrooms and hostels, students are likely to be super-spreaders and even if they are not in the vulnerable group, they can easily spread the virus among those who are vulnerable (e.g. teachers, parents, grandparents etc.)," the document reads.

The group has also argued that the time till January 2021 should be utilised by the higher education institutions to "come together to pool resources and develop strategies for optimal online delivery and evaluation".

"The emphasis should be on ensuring that students in remote areas and poor connectivity are not left behind. For instance, such students could be asked to visit the nearest educational institution for online examinations. Central institutions like IITs, IISERs, Delhi Univ. etc should take the lead in this," the proposal states.

IITs dominate HRD's NIRF ranking again; here's why they fail internationally

June 12, 2020 https://indianexpress.com/article/education/iits-dominate-india-nirf-ranking-yet-again-heres-why-they-fail-internationally-6454047/

IITs blame the high weightage given to 'perspective' metrics, which they claim lack transparency. The HRD Minister also said that he does not agree with international rankings and will instead focus on making Indian ranking a dream for international institutes.

IIT Madras topped NIRF ranking but was not featured in international rankings at all.

The Indian Institute of Technology (IIT) Madras, which has been ranked as the best Indian institute for the second consecutive year in India's National Institutes Ranking Framework (NIRF), was nowhere in the list of top 100 institutes released by the Times Higher Education (THE) Ranking and in top 250 of the Quacquarelli Symonds (QS) World University Rankings released earlier this month.

Bhaskar Ramamurthy, director of IIT-Madras, speaking to indianexpress.com said the stark variation in assessment is because of the different matrix used by international and national rankings. "The international rankings do not depend upon the data provided by the institutes. They just ask us 2-3 basic parameters like faculty-student ratio, etc, which too is an important parameter. However, the

international rankings overlook other key indices like research, industry collaboration, among others," he commented.

"Most international institutes give as high as 50 per cent weightage to perception. There is no clarity on how they calculate this perception. It could be by asking a person to randomly name the top 10 institutes in the world they know," he added. Ironically, in the NIRF ranking released today, IIT-Madras has got the highest score in perception with 96.16, followed by research with 90.67 score out of 100 this year. Overall, it has improved from 83.88 last year to 85.31 this year.

"For international rankings, if we increase our faculty members in one year, it gives us more marks at one point but also ranks us low in citation done by faculty for many years as it takes time for new faculty to research and submit citations. NIRF, on the other hand, asks for data which takes months to compile and one cannot fake these data points," he said.

However, the IIT director added that the institute is aware of its strong points and shortfalls and will build on it. He mentioned that IIT-Madras, like other IITs, can improve on its internationalisation and their first aim would be to solve the country's problems.

Minister of HRD Ramesh Pokhriyal Nishank, too, had remarked that he does not agree with the international ranking. "International rankings give high weightage to 'perspective' matrix. I do not agree with these international rankings," he said while announcing the NIRF ranking through his Twitter handle today. He noted that NIRF rankings are more subjective and consider perspective as a parameter but give it lesser weightage. He added, "We will make India's NIRF ranking so renowned that international institutes would want to be ranked in the Indian ranking instead."

Director of IIT-Delhi, V Ramgopal Rao, said in a tweet, "The character of our institutes is different. It is a marathon we are running not a 100 metre race." He had earlier commented that the international rankings lack an Indian context. On this instance, too, he mentioned, "This is a very dicey and non-transparent matric. We are known in India but international reputation needs an altogether different strategy. We need to hire a brand-building agency and aggressively campaign our Study in India initiatives, highlighting the achievements of IITs and our top institutes. Also, perception-based scores by these agencies are open to a lot of fallacies and other considerations."

NIRF Rankings 2020: IIT Madras, IISc Bangaluru, IIT Delhi top three educational institute in India
June 11, 2020 https://indiawhispers.com/2020/06/11/nirf-rankings-2020-iit-madras-iisc-bangaluru-iit-delhi-top-three-educational-institute-in-india/

Indian Institute of Technology (IIT) Madras is the best educational institute in the country, as per the National Institutional Ranking Framework Rankings (NIRF) India Rankings 2020 of the Ministry of Human Resource Development (MHRD).

Indian Institute of Science (IISc), Bengaluru took the second spot while IIT Delhi was in the third position in this year's NIRF India Rankings.

In 2019, IIT Madras had topped the overall rankings list followed by Indian Institute of Science (Bengaluru) in the second position and IIT Delhi in the third place.

Odisha's NIT Rourkela (32), SoA University (38), KIIT University (44) and IIT Bhubaneswar (57) have scored ranks in the best 100.

This year, a total of 5,805 applications have come in for participation in the process of the rankings.

Here is a list of institutes that topped the list in NIRF Rankings 2020:

Overall ranking:
IIT Madras
IISc Bengaluru
IIT Delhi

Best university:
IISc Bengaluru
Jawaharlal Nehru University (JNU), Delhi
Banaras Hindu University, Varanasi
Engineering:
IIT Madras
IIT Delhi
IIT Bombay
Management
Indian Institute of Management, Ahmedabad
IIM Bangalore
IIM Calcutta
Pharmacy
Jamia Hamdard, New Delhi
Punjab University, Chandigarh
National Institute of Pharmaceutical Education and Research, Mohali

College
Miranda House, New Delhi
Lady Shri Ram College, New Delhi
Hindu College, New Delhi

Law
National Law School of India University (NLSIU), Bangalore
National Law University, New Delhi
National Academy of Legal Studies and Research (NALSAR), Hyderabad
Union HRD minister Ramesh Pokhriyal Nishank released the latest rankings over a live broadcast on social media. He said that all the 1,000 plus universities and 45,000 plus colleges across India must be encouraged to take part in the rankings.

Initiated by MHRD, the framework uses several parameters for its ranking like Teaching, Learning, and Resources (TLR), Research and Professional Practices (RP), Graduation Outcomes (GO), Outreach and Inclusivity (OI) and Perception (PR). Institutions across the country are divided in nine different categories.

There is a proposal to link the funding of institutes across India to their NIRF Rankings.

These rankings were launched in September 2015 and till now the list has been published in 2016, 2017, 2018, 2019 and 2020. These rankings are expected to act as a guide to students looking for higher educational institutions in India.

IIT Delhi QS Ranking 2020-21: IIT Delhi slips 11 spots in ranking Director V. Ramgopal Rao explains gaps

June 11, 2020 https://www.timesnownews.com/education/article/iit-delhi-slips-11-spots-in-qs-world-rankings-2020-21-director-v-ramgopal-rao-explains-gaps/604633

IIT Delhi slipped to 193rd rank this year in QS World Rankings. Director V Ramgopal Rao has come up with an explanation regarding the slipping of position and the status of IIT Delhi on current global platform

This year only three institutes from India have made it to top 200 in QS World Rankings. Quacquarelli Symonds World University Rankings 2021 was released on June 9, 2020. The Indian institutes in the list are IIT Bombay, IIT Delhi and IISc Bangalore. As IIT Delhi has slipped 11 positions this year, director Ramgopla Rao shared his views this time to explain the gap.

Director of IIT Delhi urged the people through a letter shared through his official twitter handle. IIT Delhi was last year ranked at 182 and this year it slipped to 193. Rao asked people not to trust the rankings blindly and gave some facts.

The QS Rankings consider International faculty and students in the institute which is very low for IIT D as informed by Rao. In 2019 rankings international students were way below the global median. Faculty also was needed to be hired. The institute needs to hire 69 international faculty and 820 international students to be close to the global median.

V.Ramgopal Rao@ramgopal_rao

My take on IIT Delhi's QS ranking. Judge for yourself. Don't blindly trust the rankings and the newspaper headlines. Understand the facts. @iitdelhi

Receiving too many calls about the QS rankings. Here are some facts concerning IIT Delhi. What are the problems and what can be the solutions. Judge for yourself.

Please don't go with some media headlines and allow these commercial agencies to spoil the reputation of some of our finest institutions. The character of our institutions is different. Also, it is a marathon we are running, not a 100 mt race.

Why are we losing out on the international rankings?

Fact sheet for IIT Delhi in QS −2020 (published in 2019)

1. International Faculty way below the global median (5% weightage)

Solution: IIT Delhi needs to hire around 60 international faculty to be close to the median.

2. International students way below global median (5% weightage)

Solution: IIT Delhi needs to get around 820 international students to be close to global median.

3. Faculty Student ratio way lesser than global median. (20% weightage)

Solution: IIT Delhi needs to recruit at least 300 more faculty. But with the increased EWS quota and the girls supernumerary quotas, we need to recruit even more faculty. We are recruiting about 60 faculty per year. We have the shortest faculty recruitment time now at IIT Delhi. We can't afford to recruit more than this per year as a sharper increase will cause other logistic issues.

4. Academic reputation (40% weightage) is low and employer reputation (10% weightage) is very low.

Solution: This is a very dicey and a non transparent metric. Also, we are known in India. But international reputation needs an altogether different strategy. We need a global campaign for education like what the country has done with "Incredible India" for tourism. Need to hire a brand building agency and aggressively campaign our Study in India initiatives, highlighting the achievements of IITs and our top institutions.

Also, perception based scores by these agencies are open to a lot of fallacies and other considerations. We have all had issues with this.

5. Global Citations per faculty (20% weightage)

IIT Delhi is doing quite well in Global citations per faculty. We are already above the Global median of 37 citations per faculty and currently stand at 116. We need to note that citation per faculty has a weightage of 20% only and our QS world score stood at 80.6 last year.

For the past few years, we have been aggressively recruiting faculty. At least 200 new recruitments have been made in just the last few years. So our citations per faculty score have gone down a bit this year because, it takes time for new faculty to become productive in our system.

So judge for yourself.

V. Ramgopal Rao, Director, IIT Delhi

Faculty students ratio is given 20 per cent consideration which is again way lesser for IIT Delhi. The institute as per its director needs to recruit at least 300 faculty now. But since the EWS quota has been increased they need even more faculty. Currently, 60 faculty members are recruited yearly. But since more recruitment than the current status would cause logistical losses, the institute is bound to work with the number of faculty it has currently.

Academic reputation with 40% weightage was low and employer reputation was far lower. He said that the institute needed a global campaign such as Incredible India for promoting IIT on a global platform. IIT is a very well known institute in India but on an international scale, it needs many other strategies. He added that these perception-based scores were open to a lot of fallacies which was an issue with many institutes.

Lastly adding on global citations per faculty he wrote that the institute was above the median of 37 citations per faculty and currently stood at 116. He also said that since the new faculty takes time to be productive the rankings had gone a bit lower this year but IIT is hoping for a better one in the coming year as it has been recruiting faculty at a higher rate with more than 200 recruitments in past few years. V. Ramgopal Rao has left it for the people to judge the position of IIT D and its limitations.

IIT Delhi Says Its Programmes Support Prime Minister Modi's Vision of 'Atmanirbhar Bharat'
June 10, 2020 https://www.ndtv.com/education/iit-delhi-says-its-programmes-support-prime-minister-modis-vision-of-atmanirbhar-bharat

Indian Institute of Technology Delhi said in a statement that its projects and programmes are geared toward achieving Prime Minister Modi's vision of an 'Atmanirbhar Bharat' and that these achievements are not captured by ranking matrices.

The Indian Institute of Technology Delhi, or IIT Delhi, has initiated programmes on innovation and entrepreneurship that lay the foundation for Prime Minister Narendra Modi's vision of Atmanirbhar Bharat, said IIT Delhi in a statement. The researchers of IIT Delhi, in the fight against coronavirus, have developed a range of products starting from affordable face masks to personal protective equipment and diagnostic kits to web-based dashboard to predict the spread of coronavirus. "While such attributes are not captured by traditional ranking matrices,... they certainly resonate with national development missions," said the statement. IIT Delhi, an Institute of Eminence, has dropped over 10 places in the latest QS World University Rankings 2020.

IIT Delhi's statement said: "The present global scenario has raised a spectre of numerous challenges wherein the country's emphasis on self-reliant India or Atmanirbhar Bharat promises to bring out

the best that we have to offer." It further added: "It would catapult us in a league where we can be seen building a new and confident India."

The institute, in the statement said, it aims to file over 200 patents a year from 2021. It currently files more than 150 patents in a year which accounts for one patent for every 17 research publications. "The institute had invested over Rs 350 crore in the last few years to solve grand challenges by leveraging high-tech research facilities", it added.

Prof Ramgopal Rao, Director, IIT Delhi, in the statement said: "Our goal at IIT Delhi is to produce more job providers rather than job seekers... At least 10 initiatives we launched in the last 4 years are to support the entrepreneurship ecosystem on the campus. We are also helping our faculty to turn into entrepreneurs using the deep-tech research they carry out in their laboratories."

IIT-Delhi Director: It's time India internationalises the NIRF

The National Institutional Ranking Framework (NIRF) is transparent, and it should now have an international outlook. Probably we can identify 50 top universities in the world and compare our institutions with these 50 institutions.

THE INDIAN INSTITUTE of Technology (IIT) Delhi, reportedly, hopes to get students back to the campus starting July 2 in a phased manner, but the date may change depending on how the Covid-19 situation unfolds."These
are uncertain times. Students whose entire semesteris about taking lectures and no laboratory work, may study from home," says V Ramgopal Rao, Director, IIT Delhi. In an interview with Vikram Chaudhary, he talks about the future of campus studies and why IITs are not happy with the way global rankings are devised.

Excerpts:

There are different opinions globally on how universities should restart classes. What are your views?

Some American universities, I think, have gone overboard—they have said that till summer 2021 there won't be physical classes. That is not going to work for IITs. At IIT Delhi, it will depend on how the Covid-19 situation evolves. At the same time, if a student has internet connectivity and can take lectures at home, I don't see a reason for him/her to come to the campus right now. Our classes are usually jam-packed and it may be difficult to follow
social distancing norms. But engineering curriculum has a lot of laboratory work…

That can be done once students are back to the campus. For example, if they have to do 10 lab experiments in a semester, and earlier if they did one experiment per week, they can now do those 10 experiments in 10 days once they are here.

What about PhD students?

PhD students I think need to be here, because research cannot take a back seat, especially during current times. We are thinking of getting those research students to the campus whose work depends on experiments.IIT Delhi has about 3,500 PhD students, and we can maintain social distancing norms even with that number; our hostels can accommodate them.

Will Covid-19 permanently change colleges and universities?

A flipped classroom kind of model will become more popular, as will blended learning. Most students and faculty are already gettingusedtothat. But, on campus, a lot of peer learning also happens; that peer learning component is completely lost in an online mode. Our alumni so fondly talks about their attachment to hostels, and the friendships on the campus that last a lifetime. All these things aren't possible online.

Why have IITs decided not to take part in THE (Times Higher Education) World University Rankings this year?

The biggest challenge with all these rankings— and not just THE, but even QS—is that the component' perceptions a very high weightage. Let's take the example of JNU. Now, if you go and ask somebody in Japan about JNU and that somebody hasn't even heard of nu, on the 'perception component JNU will be ranked low, and that will lower its overall rank.

Is this the right way to judge?

I agree that Ivy League universities are far ahead of us, and far older too, but keep those few universities aside
and compare any leading IIT withanyothersimilarAmerican university, maybe on publications per faculty or
citations per faculty,andyou will find that IITs compete verywell or even better. But when you add the 'perception' component, those universities get a higher rank. The problem is, in some rankings,50% weightage is given to
'perception', and there is not enough clarity on how that 'perception' part works.

So, what can be done?

The National Institutional Ranking Framework (NIRF) is transparent, and it should now have an international outlook. Probably we can identify 50 top universities in the world and compare our institutions with these 50 institutions—it can be done by the NIRF by joining hands with global ranking agencies, such as THE and QS. But

leave the 'perception' part out, and then benchmark the best of India with those select 50, but benchmark on metrics.

Because only then we will get to know where we lag, where we need to improve. Four years ago, at IIT Delhi we were

spending Rs 100 crore on research, and now we are touching Rs 500 crore. That's huge growth, but it doesn't reflect anywhere in any of the international rankings. That is the problem with them.

How many job offers of IIT Delhi students got cancelled due to Covid-19?

We had about a dozen students who lost their job offers, but the students who have lost internships is a slightly larger number, and we are conducting special placement sessions that will happen sometime in July.

How must engineering students prepare themselves in a post-Covid-19world?

When it comes to the prevention and detection of diseases, engineers have a major role to play. As far as jobs are concerned, much depends on the economy to recover, but there could be a reorientation of engineering jobs—the nature of jobs will change. Soft skills will be more in demand even among engineers.

Direct admission to IIT Delhi PhD for selected NIT Warangal students
June 4, 2020 https://news.careers360.com/direct-admission-iit-delhi-phd-for-selected-nit-warangal-students

Indian Institute of Technology (IIT) Delhi and National Institute of Technology (NIT) Warangal have signed an agreement on Thursday to collaborate on academic and research activities.

The agreement enables meritorious students of NIT Warangal to carry on with part of their studies in IIT Delhi. On completion, the students can gain direct admission to PhD in IIT Delhi without appearing for the Graduate Aptitude Test in Engineering, or GATE, or any other national level examination.

PhD without GATE

Selected NIT Warangal students, upon completing their studies at IIT Delhi, can seek direct admission to PhD. They will not be required to appear for GATE.

The scheme will further help NIT Warangal students to qualify for the Prime Ministers Research Fellows (PMRF) for PhD at IIT Delhi.

"It will also lead to collaborative research projects, joint supervision of PhD students," said V. Ramgopal Rao, director, IIT Delhi, in a statement.

"This MoU would create an opportunity for the students of NIT Warangal to pursue their PhD and get exposure to a highly competitive environment at a very young age," added N.V. Ramana Rao, director, NIT Warangal.

Research collaboration

Collaborative research work is one of the main points of the agreement, Ramana Rao said that it will be "instrumental in substantial improvement in the research output of the faculty of both the premier institutions to keep pace with the rapidly changing technologies and the environment by mutual cooperation."

No academic fees will be charged from the students of NIT Warangal during their stay in IIT Delhi. They will be paying to their parent institution.

The students will be provided either on-campus or off-campus hostel accommodation during the one-year period on a paid basis.

Exchange BTech, MTech students

The two institutes will exchange BTech and MTech students, research scholars and faculties.

The students will be classified as special exchange students, and they will be able to participate in research activities.

The selection of students will be open throughout the academic year.

IIT Delhi lays down policy for graduating batch, offers 'early graduation' option
June 1, 2020 https://www.hindustantimes.com/education/iit-delhi-lays-down-policy-for-graduating-batch-offers-early-graduation-option/story-BpHWaO6QZrHwTFujByTmWO.html

The Indian Institute of Technology (IIT) here has laid down a policy for the graduating batch to ensure future plans of students do not get impacted due to the lockdown and is offering them an "early graduation" option, officials said.

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The policy was approved by the IIT Senate, however, it will be subject to changes as the coronavirus situation unfolds.

"The graduating batch (students who have less than a semester of graduation requirements left) can decide on an 'early graduation' option, which will be end of June or go through a 'regular graduation process' (as and when we are allowed to reconvene) and follow a regular schedule for graduation," IIT Delhi Director V Ramgopal Rao said. "As per the current plans, we hope to get the students back to the campus starting from July 2 in a phased manner. However, these dates can change depending on how the COVID-19 situation evolves . Since there may be some delays in this, the time-bound early graduation plan is being offered. Students are not forced to take it, but will have the flexibility if they choose to exercise this option," he added.

The students opting for early graduation option will have two choices -- an "audit pass or fail" option or a "credit" option.

"For the audit pass or fail option, instructors will declare the cut-off and the process, taking into account the COVID-19 related constraints. For the credit option, students will take online tests, take-home exams, assignments and telephonic viva-voce. Grading policy for credit option will also be announced soon "All early graduation requirements will be met through an online process. No student will need to come to the campus. The only reason the graduating batch will need to come to the campus will be to take away their belongings," Rao said.

The institute has announced that once the instructors post their requirements for an audit pass grade or requirements for credit option, students will be asked to exercise their option through an online portal. "If they would like to graduate at a later date as usual (default option), then they can choose to do so. There are also relaxations being given for credits and an institute-level committee will screen all such exceptions being sought by students," Rao said.

"Incase a student cannot complete graduation requirements by June-end with these options offered to them, they will have a fallback option to graduate when the semester reconvenes. The pass and

fail percentages this year will be no different from the previous years. It will be our responsibility to ensure that no one is disadvantaged because of the prevailing COVID-19 situation," he added.

Universities and schools across the country have been closed since March 16 when the Centre announced a nationwide classroom shutdown as part of a slew of measures to contain the COVID-19 outbreak.

Later, the government announced a nationwide lockdown, which began on March 25. The lockdown was initially imposed for a 21-day period till April 14. However, it was extended till Sunday. The government had announced phase-wise easing of restrictions while the lockodwn will continue in containment zones till June 30.