## **Monthly Coverage Dossier** July 2017



## IIT Madras joins hands with KPMG

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## IIT alumnus to head Singapore varsity

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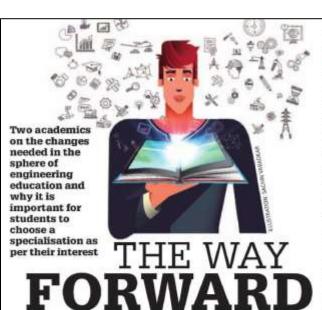
## **Prepared by**



## IIT Madras is a campus of choice for high ranking JEE students

Date: 3rd July 2017 Publication: The Times of India- Education Times Edition: Delhi/Mumbai Page no.: 1 Journalist: NA Professor: Prof. V Jagadeesh Kumar Headline: The way forward URL: <u>http://educationtimes.com/article/26/201707032017063019092048434caa761/The-way-</u>

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ANAND A SAMUEL,
vice chancellor,
VIT University, Vellore

be updated consistently with changes taking place in the be updated consistently with industry. However, it should be understood that it is the outcome of research carried out in higher education institutions that drives the industrial revolution. The interdependence is being felt now. and interactions between institutions and industry are growing. This will be the key and critical element in the growth of higher education institutions in general and engineering institutions/departments particularly in India. Both industries and institutions should collaborate for coexistence because the former will not find the required human resources without the latter.

INVOLVE INDUSTRY The world is becoming highly competitive Conventional academic processes will not do any good any longer. The focus should change from teaching to learning. This requires many changes in academics. This is

more so because today's students referred to as Gen Y - and their interests are entirely different. from that of Gen X and the boomers of vesteryears. Even though it is a Herculean task, all engineering institutions departments should effect the needed changes. For learning to be useful. interesting and

effective, experts from industry should interact with students in the classroom. Incorporating this component into the syllabus will make it mandatary (a module of two to three hours in every subject to be handled by industrialists). A difficult task to accomplish, but once implemented, it will bring about a paradigm shift in the concept of learning.

### PROJECT-BASED LEARNING

Classroom teaching and the dependence on chaik-and-talk mode are losing their importance, as they no longer interest Gen Y and don't ensure learning. Interacting with smart boards in classrooms, conducting challenging experiments in laboratories or fields, taking part in activities outside class with specific objectives, involving oneself in small projects with defined learning outcomes and assessing schemes have been proven to enhance learning. So, institutions should switch to project-based learning, which improves problem-solving skills and boosts students' confidence as well. At the same time, learning will become easy and exciting. Outdoor events such as hackathons. makeathons and codeathons, which are non-stop activities lasting at least 24 hours in the presence of a few industrialists and professors, are important. These events train students in time-bound problemsolving with resource constraints.

#### MULTI-ETHNIC EXPOSURE

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In addition to making students good citizens, universities should impart multitasking skills, offer multi-ethnic exposure, instill ethical values and ensure students

work on digital platforms. Given the demographic dividend to our advantage, with the largest number of working people to be in India by 2025, the Indian government is keen on educating the masses. This is evident from the new schemes it has announced. If each individual player in the sector decides to

follow an ethical, transparent and self-regulated system, then growth is assured. This growth will make Indian institutions globally competitive. In turn, this would help to mould students to be reliable for the 2025 world marketplace.

## V JAGADEESH

dean (academic courses), IIT-Madras

n India, students frequently end up disliking the courses they take at college. The reason for this is that the education system in our country is yet to mature. The selection of a career after school comes with its set of problems. Students choose something based on not what they want but what they think will give them maximum opportunities in the future. I know of students who have chosen an engineering discipline they were not interested in merely due to parental pressure and the perception that a particular discipline is more sought after than another. This approach is incorrect.

#### COURSE CHOICE

Institutes worldwide are aware that students may or may not end up liking a course they take at college, and that if they pursue a course they were never interested in anyway, their commitment towards the programme will wane affecting their performance. They thus are flexible and allow students to switch disciplines in case the need arises. For example, a friend in Germany switched from maths to physics at the undergraduate level before finally finding his calling in electrical engineering. He now has a PhD in electrical engineering and is doing well in the field. Indian universities should offer such choices.

#### UPCOMING OPTIONS

Emerging areas of engineering in India such as renewable energy and battery technology may foresee disruptive innovations in the future.

Indian students, like their counterparts abroad, must pursue a course out of genuine interest and have a willingness to learn the subject.

> For the complete story, visit education/mes.com

Date: 12th July 2017 Publication: Hindustan Times Edition: Online Journalist: NA Alumni/Student: Pranjal Mehta Headline: I cooked spring rolls: This is what happens when an IITian interns with a global tech giant URL: <u>http://www.hindustantimes.com/education/i-cooked-spring-rolls-this-is-what-happens-when-an-</u> <u>iitian-interns-with-a-global-tech-giant/story-IfNJf6CMmNUVkviUFl8qSM.html</u>

## I cooked spring rolls: This is what happens when an IITian interns with a global tech giant



"Engineering students trump MBA candidates to win Samsung E.D.G.E.," read the news headline. I couldn't believe it! What looked like an impossible-to-win-but-let-me-try-it competition was now on my trophy shelf.

I'd never imagined we would win the Samsung E.D.G.E. competition (a campus programme to engage B-school and engineering students across India, with winners getting potential opportunities to work with Samsung).

I am a BTech student studying metallurgy and materials engineering at the Indian Institute of Technology, Madras, and my winning team presented a solution on leadership strategy in digital payments using a disruptive technology backbone built around Samsung's mobile payment service, Samsung Pay. It was sweet victory as our undergraduate engineering team was up against students from top B-schools. We were overnight rock stars in our college and, for a brief moment, became the talking point in B-school campuses too.

As the euphoria wore off, we realised that we may not be eligible to intern with Samsung India. We were undergraduates, while internship opportunities existed for B-school graduates.

However, much to my joy, an internship offer for summer of 2017 was made and I joined the Samsung Pay team since our winning business case was on Leadership Strategy for Samsung Pay.

My teammates chose to take the technical route and joined Samsung R&D Institute India-Bangalore, Samsung's biggest R&D facility outside Korea.

I arrived for my internship in Delhi on a hot May evening. I was excited. A Rajasthani who grew up in Bangalore, I was studying in Chennai for the last two years. I like exploring new cities. Add to that the opportunity to work at one of the global tech giants. What more could you ask for at 20!

After finishing the paper work, I was introduced to the Samsung Pay team. My guide Manasvi Vedhera turned out to be a brilliant mentor. By the second half on the first day, I felt very much at home.



Pranjal gets to work. (Sourced)

I spent the first week understanding everything about Samsung Pay. As with a lot of interns, I was full of energy and ideas, but I soon realised that not all ideas are good. I would throw ideas at the Samsung Pay team and they'd explain why it had not been done or what the roadblocks were and how we could go about it. This learning was a remarkable experience and helped me develop my business acumen.

I spent a lot of time identifying new use cases. I also worked with colleagues across the globe to do feasibility checks for these use cases, both technical and business.

The Samsung Pay team did a fabulous job in accommodating a rookie like me. They were extremely friendly and cooperative. Few of the best memories I have with the team are from the elaborate lunches hosted by our director Sanjay Razdan. Age never felt like a barrier between me and my colleagues. I was engaged in the team's ongoing projects to gain corporate experience and make me business ready.

I can now confidently say that I have a sound understanding of the payment scenario in India and across the globe. Through the internship, I had the opportunity to visit offices of popular Indian startups and MNCs, organise meetings, give presentations and attend mobile phone launches. All this has helped me become a much better professional.

I could relax too - there were several cool lounges where I could unwind.

Samsung also has some amazing facilities for its employees – a multi-cuisine cafeteria that serves Indian, continental as well as Korean food. I come from a prestigious yet government-run institution. Hostel food is good, but lunch in the office canteen was delicious.

One of the best memories I will take back from here is the Samsung Masterchef competition I took part in with my teammates. We cooked spring rolls which disappeared in the bellies of the audience, 3.142 microseconds after the judge praised its stuffing.

Even beyond these materialistic perks, the satisfaction of working on and for something touching millions of lives across the globe is beautiful.

I have loads of stories to tell my friends when I get back. One particular story that I would like to share is when I walked into a Samsung store with a date and told them I work at HO – the royal treatment that came next worked wonders!

Date: 15th July 2017 Publication: The New Indian Express Edition: Chennai Page no: 5 Journalist: NA Alumni: Mr. Subra Suresh Professor: Prof. R Nagarajan Headline: IIT-M alumnus Prof Subra Suresh to head Singapore tech university LIBL: http://www.newindianexpress.com/states/tamil-nadu/2017/jul/15/jit-madras-alumr

URL: <u>http://www.newindianexpress.com/states/tamil-nadu/2017/jul/15/iit-madras-alumnus-professor-subra-suresh-to-head-singapore-tech-university-1628922.html</u>

## IIT-M alumnus Prof Subra Suresh to head Singapore tech university

## EXPRESS NEWS SERVICE Chennai

PROFESSOR Subra Suresh, an alumnus of Indian Institute of Technology-Madras and hailing from Chennai, has been chosen as the fourth president of Nanyang Technological University (NTU), Singapore, according to a statement issued by IIT-Madras.

He will begin his presidency from January 1, 2018 after the retirement of the current president Professor Andersson.

A release issued by IIT-Madras said that Professor Suresh received his B Tech degree from IIT-Madras and was facilitated with the distinguished alumnus award by the institute in 1997.

Professor R Nagarajan, Dean of International and Alumni Relations, IIT Madras, said," Subra Suresh is one among our 150 distinguished alumni, and it is no surprise, given his record of accomplishments. IIT Madras has close ties with NTU, and is in the process of formalising a joint PhD degree programme. Subra Suresh's arrival at NTU augurs well for future interactions and collaborations among our institutions."

The professor served as the ninth president of Carnegie Mellon University from July 1, 2013 until June 30, 2017. An eightmember search committee chaired by Koh Boon Hwee, Chairman of the NTU Board of Trustees, unanimously selected Professor Suresh for the top NTU role.

He is an eminent scientist, engineer and entrepreneur and was chosen in 2010 by then US President Barack Obama to lead the US National Science Foundation (NSF). He is also an elected member of the American Academy of Arts and Science and a fellow of the National Academy of Inventors. He got a master's degree from Iowa State University and has a Doctor of Science degree from MIT. After post-doctoral research at the University of California, Berkeley and the Lawrence Berkeley National Laboratory, he joined the Brown University in 1983.

Subra Suresh joined MIT in 1993 as the RP Simmons Professor of Materials Science and Engineering. He was also honoured with Padma Shri award in 2011 by the then President Pratibha Patil. Date: 15th July 2017 Publication: DT Next Edition: Chennai Page no: 3 Journalist: NA Alumni: Mr. Subra Suresh Professor: Prof. R Nagarajan Headline: IIT-M alumnus named NTU president

## IIT-M alumnus named NTU president CHENNAI: Professor Subra Suresh, an alumnus of IIT-Madras and a native of Chennai. was chosen as the fourth president of Nanyang Technological University (NTU), Singapore. Prof Suresh will begin his presidency on January 1, 2018, when the current president Prof Andersson retires. A release here on Friday said, NTU Singapore was one of the world's leading universities. In its QS World University Rankings this year, the Quacquarelli Symonds group placed NTU 11th in the world and the best in Asia. Prof Suresh received his B.Tech degree from the IIT-M and he was felicitated with the Distinguished Alumnus Award in 1997.

Date: 15th July 2017 Publication: The Financial Express Edition: Online Journalist: NA Alumni: Mr. Subra Suresh Professor: Prof. R Nagarajan Headline: Big boost for Indian science, Subra Suresh appointed President of Singapore's top tech university; all you need to know about this prominent Indian origin scientist URL: <u>http://www.financialexpress.com/india-news/big-boost-for-indian-science-subra-suresh-</u> appointed-president-of-singapores-top-tech-university-all-you-need-to-know-about-this-prominentindian-origin-scientist/763639/

## Big boost for Indian science, Subra Suresh appointed President of Singapore's top tech university; all you need to know about this prominent Indian origin scientist

An Indian-origin scientist, Subra Suresh has been in the news for taking over as the president of Singapore's prestigious Nanyang Technological University (NTU). With his term as the president starting in January 2018, Suresh would replace the incumbent Bertil Andersson to become the fourth President of NTU. The decision to appoint Suresh came after an eight-member committee meeting chaired by Chairman of the NTU Board of Trustees Koh Boon Heww. The committee unanimously selected Prof Suresh for the top role and his appointment has been strongly endorsed by all members. Here is all you need to know about one of the most prominent scientists of the world:

Most recently, Suresh has served as the president of Carnegie Mellon University from 2013 to 2017. Suresh was also chosen by former US President Barack Obama as the Director of US National Science Foundation in 2010. Commenting on Suresh'stenure at NSF, Obama had earlier said that, "We have been very fortunate to have Subra Suresh guiding the National Science Foundation. He has shown himself to be a consummate scientist and engineer – beholden to evidence and committed to upholding the highest scientific standards. He has also done his part to make sure the American people benefit from advances in technology. I am grateful for his service."

In the year 2011, Suresh has even received the prestigious Padma Shri award which is India's fourth highest civilian honor, bestowed by the then President of India Pratibha Patil. Suresh has also authored as many as 240 research articles in international journals, co-edited five books, co-invented 22 U.S. and international patent applications. Suresh has been elected to the National Academy of Medicine, National Academy of Sciences and National Academy of Engineering and is one of the only 19 American scientists who has been elected to all three branches.

Born in May 1956, Suresh hails from Mumbai and has graduated from 11th grade in Tamil Nadu at the age of 15. Suresh holds a BTech degree from the Indian Institute of Technology (IIT) Madras in Chennai and did MS from Iowa State University. He has also completed his doctoral thesis from the Massachusetts Institute of Technology

Date: 15th July 2017 Publication: The Economic Times Edition: Online Journalist: Sreeradha Basu Alumni: Mr. Subra Suresh Professor: Prof. R Nagarajan Headline: IIT-Madras distinguished alumnus Subra Suresh named President of NTU Singapore URL:http://economictimes.indiatimes.com/articleshow/59594528.cms?utm\_source=contentofinterest& utm\_medium=text&utm\_campaign=cppst

## IIT-Madras distinguished alumnus Subra Suresh named President of NTU Singapore

MUMBAI: Professor Subra Suresh, a distinguished alumnus of IIT Madras, has been chosen as the fourth President of Nanyang Technological University (NTU), Singapore. He will begin his presidency on January 1, 2018, when the current president, Prof. Andersson retires.

In its QS World University Rankings this year, the Quacquarelli Symonds group placed NTU 11th in the world and the best in Asia.

Prof. Suresh received his Bachelor of Technology degree from the Indian Institute of Technology Madras and he was facilitated with The Distinguished Alumnus Award by the Institute in 1997.

He served as the ninth president of Carnegie Mellon University from July 1, 2013 until June 30, 2017.

An eight-member search committee chaired by Koh Boon Hwee, Chairman of the NTU Board of Trustees, unanimously selected Prof Suresh for the top role at NTU.

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He has a Master's degree from Iowa State University, and has a Doctor of Science degree from MIT. Following postdoctoral research at the University of California, Berkeley, and the Lawrence Berkeley National Laboratory, he joined the faculty of engineering at Brown University in 1983, and was promoted to the position of Professor in 1989. He joined MIT in 1993 as the R.P. Simmons Professor of Materials Science and Engineering, and served as head of MIT's Department of Materials Science and Engineering from 2000-2006.

Prof. Suresh was honoured with the Padma Shri Award in 2011 by then President of India, Pratibha Patil.

Date: 15th July 2017 Publication: Skill Outlook Edition: Online Journalist: NA Alumni: Mr. Subra Suresh Professor: Prof. R Nagarajan Headline: India's Pride: IIT Madras Distinguished Alumnus, Professor Subra Suresh, named President of NTU Singapore

URL: <u>http://skilloutlook.com/global-news/indias-pride-iit-madras-distinguished-alumnus-professor-subra-suresh-named-president-ntu-singapore</u>

## India's Pride: IIT Madras Distinguished Alumnus, Professor Subra Suresh, named President of NTU Singapore



Chennai: Professor Subra Suresh, a distinguished alumnus of Indian Institute of Technology Madras and a native of Chennai, has been chosen as the fourth President of Nanyang Technological University (NTU), Singapore. Prof. Suresh will begin his presidency on 1 January 2018, when the current President Prof. Andersson retires.

NTU Singapore is one of the world's leading universities. In its QS World University Rankings this year, the Quacquarelli Symonds group placed NTU 11th in the world and the best in Asia. NTU has also been placed the world's top young university for the last four consecutive years.

Prof. Suresh received his Bachelor of Technology degree from the Indian Institute of Technology Madras and he was facilitated with The Distinguished Alumnus Award by the Institute in 1997.

Prof. R. Nagarajan, Dean of International and Alumni Relations, IIT-Madras, said, "Subra Suresh is one among our

150 Distinguished Alumni, and it is no surprise given his record of accomplishments. I'm sure he'll be replicate at NTU his successes at NSF and CMU. IIT Madras has close ties with NTU, and is in the process of formalizing a joint Ph.D. degree program. Subra's arrival at NTU augurs well for future interactions and collaborations among our institutions".

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Date: 15th July 2017 Publication: Web India 123 Edition: Online Journalist: NA Alumni: Mr. Subra Suresh Professor: Prof. R Nagarajan Headline: IIT-M alumnus named NTU Singapore President URL: https://news.webindia123.com/news/articles/India/20170714/3146520.html

## IIT-M alumnus named NTU Singapore President

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Date: 16th July 2017 Publication: The Hindu Edition: Online Journalist: NA Alumni: Mr. Subra Suresh Headline: IIT-M alumnus to head Singapore university URL: http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/iit-m-alumnus-to-headsingapore-university/article19283393.ece

## IIT-M alumnus to head Singapore university

In 2010, he was chosen by Barack Obama to lead the US National Science Foundation

Subra Suresh, Padma Shree awardee and alumnus of the Indian Institute of Technology -Madras, has been selected to head the Nanyang Technological University of Singapore.

Prof. Suresh had served a four-year term as the president of Carnegie Mellon University and demitted office on June 30. He was chosen in 2010 by the then U.S. President Barack Obama to lead the U.S. National Science Foundation.

According to a release from the institute, Prof. Suresh completed his B Tech from IIT-M, which felicitated him with the distinguished alumnus award in 1997.

An eight-member search committee chaired by Mr. Koh Boon Hwee, chairman of the NTU Board of Trustees, unanimously selected Prof. Suresh for the top role at NTU.

At the NTU, he will begin his presidency on January 1, 2018. NTU was placed 11th in the world in the Quacquarelli Symonds World University Rankings this year.

IIT-M's Dean of International and Alumni Relations R. Nagarajan said, "IIT-M has close ties with NTU and is in the process of formalising a joint Ph.D degree programme. Subra's arrival at NTU augurs well for future interactions and collaborations among our institutions," he said.

Date: 16th July 2017 Publication: India Education Diary Edition: Online Journalist: NA Alumni: Mr. Subra Suresh Headline: IIT-Madras Distinguished Alumnus, Professor Subra Suresh, named President of NTU Singapore URL: https://indiaeducationdiary.in/iit-madras-distinguished-alumnus-professor-subra-suresh-namedpresident-ntu-singapore/

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Prof. Suresh was honoured with the Padma Shri Award in 2011 by then President of India, Ms. Pratibha Patil.

Date: 16th July 2017 Publication: Westover Review Edition: Online Journalist: William Searcy Alumni: Mr. Subra Suresh Headline: India-born scientist Subra Suresh to head Singapore's Nanyang Technological University URL: <u>http://westoverreview.com/2017/07/16/india-born-scientist-subra-suresh-to-head-singapores-</u> nanyang-technological-university/

## India-born scientist Subra Suresh to head Singapore's Nanyang Technological University

Professor Subra Suresh has been appointed to succeed Professor Bertil Andersson as the fourth President of Nanyang Technological University, Singapore (NTU Singapore). An eminent engineer, scientist and entrepreneur, Suresh most recently served as the President of Carnegie Mellon University from 2013 to June 2017. Prior to his four year term at Carnegie Mellon University, Suresh served as the Director of the US National Science Foundation (NSF). Nominated by then-US president Barack Obama in 2010, he oversaw an annual budget of US\$7 billion covering in all fields of science and engineering in more than 2,000 institutions across the US. Suresh also has the unique distinction of being the only university president elected to all three US national academies of Sciences, Engineering and Medicine, and is one of the few elected foreign members of the Chinese Academy of Sciences. Currently a US citizen, Suresh was born in India and did his undergraduate studies at the Indian Institute of Technology in Madras. He went on to complete a Masters degree at Iowa State University and a Doctor of Science at the Massachusetts Institute of Technology (MIT), before conducting postdoctoral research at the University of California at Berkeley and the Lawrence Berkley National Laboratory. In 1983, he joined Brown University as an assistant professor of engineering and was promoted to full professor in 1989. Subsequently, Suresh jointed MIT in 1993 as the R. P. Simmons Professor of Materials Science and Engineering. He was promoted to dean of engineering in 2007 and named the Vannevar Bush Professor. While at MIT, Suresh was the principal faculty coordinator who led the formation of the Singapore -MIT Alliance for Research and Technology (SMART) in 2006. In this capacity, he worked closely with the MIT and Singapore research communities, and presented the vision for the SMART center in July 2006 to the Research, Innovation and Enterprise Council (RIEC), chaired by Singapore Prime Minister Lee Hsien Loong. Suresh's interactions with Singapore began almost a quarter century ago, when he served as a consultant to the National Science and Technology Board, the predecessor of the Agency for Science, Technology and Research (A\*STAR). Since then, he has been on the Advisory Boards or Councils of A\*STAR Institutes and several schools at the National University of Singapore (NUS), in addition to holding the inaugural Tan Chin Tuan Centennial Chair for visiting appointments at NUS. "I have had a very special affinity for Singapore and numerous interactions with colleagues here in academia, industry and government. It has been a privilege to witness and also participate in the impressive rise of both Singapore and NTU on the international stage," Suresh said. "I look forward to working with the NTU community, including its outstanding faculty and administrative staff, 200,000+ global alumni, trustees, and exceptional students to realize the great opportunities that lie ahead. I am also grateful to Prof Andersson for his very impactful leadership of NTU for the past six years." According to an email to NTU staff from the Chairman of the NTU board of trustees, Mr. Koh Boon Hwee, Suresh was the unanimous choice of an eight-member search committee that was convened more than a year ago. "Prof Suresh understands the Singapore higher education and research

systems, as well as those in North America, Europe, China and India, having actively engaged with various public and private agencies and boards, and as a member of a number of national academies of science and engineering," said Koh in a statement to the press. "He is an educator, scientist, advisor, inventor, entrepreneur and leader all rolled into one. The Board of Trustees and I are delighted that he has agreed to take the top job to lead NTU in its next phase of development."

Date: 16th July 2017 Publication: The Times of India Edition: Chennai Page no.: 3 Journalist: NA Alumni: Mr Subra Suresh Headline: IIT-M professor named president of Singapore University

## IIT-M professor named president of Singapore university: Professor Subra Suresh, a distinguished alumnus of Indian Institute of Technology Madras, has been chosen as president of Nanyang Technological University, Singapore. Professor Suresh will begin his presidency on January 1, 2018.

Date: 17th July 2017 Publication: The Hindu Edition: Chennai Page no.: 2 Journalist: NA Professor: Prof. R. Nagarajan Alumni: Mr Subra Suresh **Headline: IIT alumnus to head Singapore varsity** 

URL: <u>http://www.thehindu.com/news/cities/chennai/iit-alumnus-to-head-singapore-varsity/article19290979.ece</u>

## IIT alumnus to head Singapore varsity

## He earlier led U.S. science foundation

SPECIAL CORRESPONDENT CHENNAL

Subra Suresh, Padma Shri awardee and alumnus of the Indian Institute of Technology-Madras, has been selected to head the Nanyang Technological University of Singapore.

Prof. Suresh had served a four-year term as the president of Carnegie Mellon University and demitted office on June 30. He was chosen in 2010 by the then U.S. President Barack Obama to lead the U.S. National Science Foundation.

According to a release from the institute, Prof. Suresh completed his B Tech from IIT-M, which felicitated him with the distinguished alumnus award in 1997.

An eight-member search committee chaired by Mr. Koh Boon Hwee, chairman of the NTU Board of Trustees, unanimously selected Prof. Suresh for the top role at NTU.

At NTU, he will begin his presidency on January 1,

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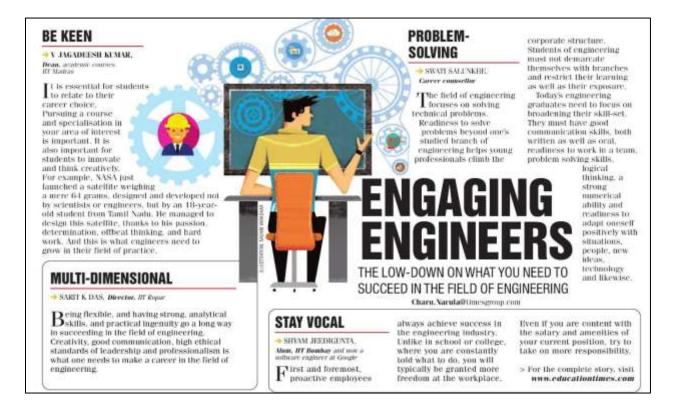
Subra Suresh

2018. NTU was placed llth in the world in the Quacquarelli Symonds World University Rankings this year.

IIT-M's Dean of International and Alumni Relations R. Nagarajan said, "IIT-M has close ties with NTU and is in the process of formalising a joint Ph.D degree programme. Subra's arrival at NTU augurs well for future interactions and collaborations among our institutions," he said. Date: 17th July 2017 Publication: India Today Edition: Electronic Journalist: NA Alumni: Mr Subra Suresh **Headline: IIT Madras alumnus to head Singapore varsity** 



Date: 24th July 2017 Publication: Times of India Edition: Mumbai Page no.: 13 Journalist: Charu Narula Professor: Prof. V. Jagdeesh Kumar Headline: Engaging Engineers



# IIT Madras is a multi-cultural campus

Date: 19th July 2017 Publication: The Times of India Edition: Chennai Page no: 3 Journalist: NA **Headline: IIT-M to host Nandan Nilakeni for convocation** 

## IIT-M to host Nandan Nilakeni for convocation: The 54th Convocation of the Indian Institute of Technology Madras will be conducted on Friday, July 21 at the Student Activities Centre on campus at 3.30 pm. Nandan Nilakeni, former chairman, Unique Identification Authority of India and co-founder, Infosys will be present as the chief guest.

Date: 21st July 2017 Publication: The Hindu Edition: Chennai Page no.: 3 Journalist: NA **Headline: General- Indian Institute of Technology** 

> Indian Institute of Technology: 44th convocation, Student Activities Centre, Taramani, 3.30 p.m.

Date: 22nd July 2017 **Publication: The Hindu Business Line** Edition: Chennai / Delhi / Mumbai / Pune / Bangalore / Hyderabad / Kolkata / Kochi / Ahmedabad Page no.: 9

Journalist: NA

Professor: Prof. Bhaskar Ramamurthi

Alumni/students: Chinmay Jha, Vishal Katariya, Vidhya Ramas wamy & Shashwat Nitin Sinai Salgaocar Headline: We're entering an era of life-long learning: Nilekani

URL: http://www.thehindubusinessline.com/info-tech/were-entering-an-era-of-lifelong-learningnilekani/article9783997.ece

## We're entering an era of life-long learning: Nilekani

#### OUR BUREAU

"The biggest takenway from IIT-Madras will not be whether you know thermodynamics or something else but the ability to learn new things. Learning to learn will be the biggest lesson that you will take away from your IIT days," Nandan Nilekani, Former Chairman, Unique Mentification Authority of india and co-founder, in-forys, told graduating stu-dents of IIT Madras.

"The good news is that you got a degree from IT-Madras, and the not-so-good news is that you cannot stop learning, that you cannot stop tearning. You have to keep learning for the rest of your life because we are entering an era of life-long learning," he said at the insti-tute's 54th Convocation Day. Nilekani said he was an en-menenent for anoth Massre

trepreneur for nearly 30 years. and was also part of govern-ment engaged in a start-up (UIDM) but never seen the pace of change as high as it is

today. One cannot predict the lond of job that a person will do in the future or the kind of organisation be/she will work in the future. Being an entre-preseur, one cannot predict what the pivots in business will be, he said.

The rate of change is doub-ling every is months, "This means many jobs that exist today will not exist tomorrow, and many new jobs will be cre-ated tomorrow that don't exist today," he said.

For instance, machines are becoming senarter with new technologies like machine learning, artificial intelligence and deep learning and will take away repetitive jobs that they can do well. However, machines will never take away jobs that involve people to do well.

Therefore, soft skills and doing things with enquathy, able to collaborate and work as a team cannot be automated. Students should develop



Nandan Milekani, Co-fo der, Iofosys, flanked by Pawan Goenka(second left), Chairman, Board of Governors, ET-Madras, and Bhaskar Ramamurthi, Director, at the 54th convocation of the institute in Chennai, on Friday www

these capabilities to get things done in a different way that have a high degree of human the cotor, IIT Madras, said that in Not ranking among engineer

ing institutes in the NIRF canking for the second year run-ning, but was also ranked second for overall performance among all universities in India. Nilekani presented prizes to

students while Ramamurthi awarded degrees to graduat-ing students. A total of 2,263 degrees were awarded this war.

#### Prize winners

The President of India Prize (fibarat Ratna M Visvesvatava Memorial Prize and Banco Foundation Prize), Chinmay Iba, R.Tech (Mechanical Engin-[Pa, K-Jech (Wechanitial Engin-erring): Governne's Prize – Vishal Katurya, Blech (Phys-ics): V Stinivasan Memocial Prize) – Vidhya Rumaswamy, Dual Degree (Computer Sci-ence Engineering): and Shunkar Dual Shurma Prize. Shankar Dayal Sharma Prize -Shashwat Nitin Sinai Salgao-car, B.Tech (Aerospace Engineering)

Date: 22nd July 2017 Publication: The Hindu Edition: Chennai Page no.: 3 Journalist: NA Professor: Prof. Bhaskar Ramamurthi Alumni/student: Chinmay Jha, B **Headline: Data should be democratised: Nilekani** 

URL: <u>http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/data-should-be-democratised-nilekani/article19328331.ece</u>

## Data should be democratised: Nilekani

Former UIDAI chairman delivers 54th convocation address at Indian Institute of Technology-Madras

#### SPECIAL CORRESPONDENT CHENNAL

Change in the 21st Century will be propelled by data, and "so, data should be democratised. We need a policy that will ensure that everybody has access to data," said Nandan Nilekani, former chairman of Unique Identification Authority of India, and co-founder of Infosys.

Delivering the 54th convocation address at the Indian Institute of Technology-Madras, Mr. Nilekani said, if oil transformed the 20th century then "data, the new oil", would change the 21st century.

The data generated by massive exercises such as the Audhaar or the digital transition would provide a real time sense of the economy. If data is restructured, it could benefit everybody, Mr. Nilekani said.

NBekani said. He gave the example of the Goods and Services Tax, which would generate a luge source of data, as eight million businesses for the first time would be on one platform. It would bring one billion "line items" and every service and product will have a code, he said.

Pawan Goenka, chairman, Board of Governors of the Institute, in his address told the graduates that entrepreneurship and disruptive ideas and business models had changed the face of companies. Even Mahindra, which had made a name as tractor manufacturer, found that a start-up it had incubated, Trringer, had become successful by reaching out to small farmers.

IIT-M Director Bhaskar Ramamurthi presented a report on the institute's performance.

Of the 2,263 candidates who qualified for their degrees, a total of 1,516 graduands received their certificates in person.

Chinmay Jha, B. Tech (Mechanical Engineering) won three prizes – Presdient of India prize; Bharat Rama M. Viswesvaraya Memorial Prize and the Banca Foundation Prize.



Proud moment: A student receives his degree certificate as former UIDAI chairman Nandari Nilekani, second from right, looks on. ••••• approximate

Date: 22nd July 2017 Publication: The Times of India Edition: Chennai Page no.: 5 Journalist: NA Professor: Prof. Bhaskar Ramamurthi Headline: Lifelong learning key to stay prepared for changes ahead: Nilekani to IITians URL: <u>http://timesofindia.indiatimes.com/city/chennai/lifelong-learning-key-to-stay-prepared-for-</u> changes-ahead-nilekani-to-iitians/articleshow/59706158.cms

# Lifelong learning key to stay ready for changes ahead: Nilekani to IIT-M grads

TIMES NEWS NETWORK

Chennai: Stressing the importance of lifelong learning, former chairman of Unique Identification Authority of India Nandan Nilekani advised IIT-M graduates that their biggest takeaway must be the ability of 'learning to learn' new things as they prepare for changes ahead.

"Never has the pace of change been as high as today. We are entering an era of lifelong learning because we can't predict the kind of jobs or organisations we will be working for. You have to learn something new every few years," he said while speaking at the 54" IIT-M convocation on Friday.



Nandan Nilekani felicitates an IIT-M student during the convocation of the institute on Friday

Nilekani said, "Many jobs that exist today may not be there tomorrow while many which don't exist today will be created later. Whether careers or job markets, the key message is life-long learning," he said, adding learning need not necessarily be on campus but could be online, anytime, anywhere.

Nilekani said while machines will take away jobs that machines can do well, it could never take away jobs that require people to do well. "Soft skills, empathy, collaboration, teamwork, goal setting and leading people can never be automated. So you should develop capability in doing things in a different way that have a high degree of human interaction," he said.

Stating that India is on the verge of enormous change due to digital explosion. Nilekani said data has become the new oil of the 21° century and the the basis of transformation. He said it is important for data to be democratised and accessible to everyone and must be restructured to benefit individuals and businesses. With large scale national networks like GST, he said a consumer can get his own data to get better loan, education or healthcare, while abusiness can used ata to get better credit or business.

IIT-M director professor Bhaskar Ramamurthi said a total of 2,263 degrees wery awarded this year. With 257 PhDs awarded this year; IIT of ficials said this has been the highest number in the history of the institute so far: Date: 22nd July 2017 Publication: The New Indian Express Edition: Chennai Page no.: 3 Journalist: NA

Professor: Prof. Bhaskar Ramamurthi Alumni/students: Chinmay Jha, Vishal Katariya, Vidhya Ramaswamy & Shashwat Nitin Sinai Salgaocar

Headline: Be ready for a world of changes, says Nandan Nilekani at IIT-M convocation

Vishai Katariaya

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URL: <u>http://www.newindianexpress.com/cities/chennai/2017/jul/22/be-ready-for-a-world-of-changes-</u>says-nandan-nilekani-at-iit-m-convocation-1631983.html

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## Be ready for a world of changes, says Nilekani

Stresses the need for lifelong learning at IIT Madras convocation; says today's jobs may not exist tomorrow

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NTech-PhD dual degree and a part PhD degree with the Deletion of PhD degree with the Deletion of Photons, Getriany, with association for the first stree this, year Date: 22nd July 2017 Publication: Deccan Chronicle Edition: Chennai/Kochi/Hyderabad Page no.: 3 Journalist: NA Professor: Prof. Bhaskar Ramamurthi Headline: Data is new oil, basis for transformation: Nandan Nilekani URL: <u>http://www.deccanchronicle.com/nation/current-affairs/220717/data-is-new-oil-basis-for-</u> transformation-nandan-nilekani.html

# Data is new oil, basis for transformation: Nilekani

## DC CORRESPONDENT CHENNAI, JULY 21

Former Unique Identification Authority of India chairman Nandan Nilekani said the massive data being created through various platforms including Aadhaar should be accessible to everyone.

Speaking at the 54th convocation of IIT Madras on Friday he said, "Just as the oil was the basis for the transformation in 20th century data is the basis for the 21st century."

"But it's very important that the new oil, the data are democratised and available to everyone to use," he said, adding that it should not fall in the pockets of few organisa-

54th PP

Former UIDAI chairman and Infosys co-founder Nandan Nilekani handing over certificates to a student at IIT Madras on Friday. IITM chairman Pawan Goenka and director Bhaskar Ramamurthi are also seen. - DC

#### tions.

A consumer can get his own data to get better health care and a good education. Likewise, business sector can use the data to make better business. "If we can restructure the data to benefit the every individual and business, it will lead to the enormous amount of economic growth," the chief architect of the Aadhar scheme said.

"IIT Madras has filed 120 patent applications during the year, of which 20 are international patents. It has topped among the IITs with the higher number of patent filings," said Bhaskar Ramamurthi, director, IIT Madras.

He also said the IIT-MS-AT will be launched later this year. "The satellite is currently undergoing intensive testing at Isro and IIT-M," he said.A total of 2,263 degrees were awarded this year, of which 1,588 degrees were awarded in person and rest in absentia.

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Date: 22nd July 2017 Publication: The Asian Age Edition: Delhi / Mumbai / Kolkata Page no.: 15 Journalist: NA

## Headline: Data is the new oil, says Nandan Nilekani

URL: <u>http://www.asianage.com/business/in-other-news/220717/data-is-the-new-oil-says-nandan-nilekani.html</u>

## TRACKING | TRENDS He noted much of it would depend upon policies on data Data is the new oil, says Nilekani

Chennai, July 21: Describing data as the "new oil". Infosys cofounder Nandan Nilekani on Friday said India has a chance to build a completely new paradigm as he made a strong pitch for democratising data so that it is available to everybody and not just a select few organisations.

organisations. "Data has become the new oil. Just like oil was the basis for transformation of the 20th century, data is the basis for 21st century. But it is very important that if data is the new oil, then data is democratised (and) that data is available to every-



body to use," Mr Nilekani said in his address at the 54th convocation of Indian Institute of Technology, Madras. What kind of policies the

country has on data is very

Data has become the new oil. Just like oil was the basis for transformation of the 20th century, data is the basis for 21st century. But it is very important that if data is the new oil, then data is democ-

- N. NILEKANI

important and it has to be made sure that all this "massive data that is going to get created is not just in a few pockets of organisations but everybody has access to that", he noted.

"In India, we have a chance to do that, thanks to the tochnology we have and what that means is that a consumer can get his own data to get a better loan, better health care, education. A business can use data to get better credit or better business.

or better business. "So therefore, if data is the new oll, and if we can restructure data to benefit every individual and every business, then we can lead to enormous amount of activity and economic growth. So we have a chance to build a completely new paradigm on data which no other country can do," he said.

The former UIDAI chairman said India, due to its "digital explosion", was on the verge of enormous change which would create massive opportunities. Over the last eight ware

Over the last eight years, India has built a very sophisticated stack of software tools which a billion people can access, he said. "It is heard on everybody

"It is based on everybody having a unique ID, the Aadhaar number. You can use that for doing authentication wherever you are (using) your phone, you can use that for doing a KYC which allows you to open a bank account or get a SIM card," he said.

-PTI

Date: 22nd July 2017 Publication: Millennium Post Edition: Delhi / Kolkata Page no.: 13 Journalist: NA

### Headline: Data has become the new oil, says Nilekani

URL: http://www.millenniumpost.in/business/data-has-become-the-new-oil-says-nilekani-253741

## Data has become the new oil, says Nilekani

CHENNAI: Describing data as the 'new oil', Infosys cofounder Nandan Nilekani on Friday said India has a chance to build a completely new paradigm as he made a strong pitch for democratising data so that it is available to everybody and not just a few organisations.

Data has become the new oil. Just like oil was the basis for transformation of the 20th century, data is the basis for 21st century.

"But it is very important that if data is the new oil, then data is democratised (and) that data is available to everybody to use," Nilekani said in his address at the 54th convocation of Indian Institute of Technology, Madras (IIT-M).

What kind of policies the country has on data is very important and it has to be made sure that all this 'massive data that is going to get created is not just in a few pockets of organisations but everybody has access to that', he noted. In India, we have a chance

to do that, thanks to the technology we have and what that means is that a consumer can get his own data to get a better loan, better health care, education. A business can use data to get better credit or better business.

"So therefore, if data is the new oil, and if we can restructure data to benefit every individual and every business, then we can lead to enormous amount of activity and economic growth. So we have a chance to build a completely new paradigm on data which no other country can do," he said.

Nilekani, former Chairman of the Unique Identification Authority of India (UIDAI), said India, due to its "digital explosion", was on the verge of enormous change which would

create massive opportunities. Over the last eight years, India has built a very sophisticated stack of software tools which a billion people can

access he said. 'It is based on everybody



haar number. You can use that for doing authentication wherever you are (using) your phone, you can use that for doing a KYC (Know Your Customer) which allows you to open a bank account or get a SIM card. It allows you to electronically sign and store documents and it allows to access your own data," he said.

Such systems were now available at a 'scale' in India, he said, adding the Aadhaar system on June 30 did four crore authentications even as the direct cash transfer system built using the unique ID has crossed two billion transactions in the last three years.

These were really "large national scale systems" that have been built in India and well allow creating a new class of solutions, that would be dramatically cheaper than anything being done on Friday.

India was also building systems which were creating national level platforms for many things and the GST Network was a good example of this, he said.

"We have talked about the GST and its impact on a single market and so on but it is also a huge source of data.

"Because, for the first time in India, eight million businesses will be on one platform, because earlier those who paid excise duty or VAT, they will all be on one platform. So all the taxpayers in India, the business taxpayers who pay indirect tax, they have to file invoice line item level returns into the GST network. "So if you have 8 million

businesses in India who do 120 line items a month, we are talking about a minim um of one billion line items that are going to be recorded every month in the GST system.

"So suddenly you will have data on a billion transactions a month across the country for every product and service that is being transacted. This is a huge, huge move forward," he said.

This data will allow getting a real time sense of the economy, because there will be information on a daily or weekly basis whether the economy was growing or not and which regions were doing well and so on, he said. Digital transactions can also be used to avail credit.

"Suddenly eight million businesses will become eligible for credit as companies will be able to demonstrate their performance, and there are many other such systems coming up," he stid. Date: 22nd July 2017 Publication: Business Standard Edition: Delhi / Mumbai Page no.: 4 Journalist: NA Headline: Infy co-founder Nilekani calls data the new oil

## Infy co-founder Nilekani calls data the new oil

Describing data as the "new oil", Infosys co-founder Nandan Nilekani on Friday said India has a chance to build a completely new paradigm as he made a strong pitch for democratising data so that it is available to everybody and not just a few organisations. "Data has become the new oil. Just like oil was the basis for transformation of the 20th century, data is the basis for 21st century. But it is very important that if data is the new oil, then data is democratised (and) that data is available to everybody to use," Nilekani said at the PTI4 IIT-Madras.

Date: 22nd July 2017 Publication: DT Next Edition: Chennai Page no.: 3 Journalist: NA Professor: Prof. Bhaskar Ramamurthi Headline: Data is king in 21st century, says Nilekani URL: <u>http://www.dtnext.in/News/City/2017/07/21214159/1039342/Data-has-become-the-new-oil-</u> says-Nandan-Nilekani.vpf

## Data is king in 21st century, says Nilekani

CHENNAI: "India is going through a digital explosion, bringing with it changes and enormous opportunities," said Nandan Nilekani, former chairman, Unique Identification Authority of India and co-founder, Infosys, at the 54th Convocation of the Indian Institute of Technology – Madras (IIT-M) here on Friday.

"We have built a sophisticated stack of software tools, which can be used for authentication or to knowing your customer. On June 30, the Aadhaar automatic system saw four crore applications in a day. India is building large systems and creating national platforms, for example, the GST network.

For the first time in India, eight million businesses will be on one platform to file invoices on the network. One billion transactions have been recorded in



Nandan Nilekani, former chairman, UIDAI and Infosys co-founder, presents a degree to a student at the 54th Convocation of IIT-Madras on Friday

the system. This data will allow you to get a real-time sense of the economy," he said.

"Oil was the basis of transformation in the 20th century, data is the new oil, it will be the business of 21st century," said the former IIT-Bombay alumnus. Nilekani pointed out that it is important that this data is democratised.

Addressing the students, Nilekani said that the graduates should be ready for life-long learning, as the pace of change has never been as high as it is today. He advised the students to in India."

invest in "human skills."

A total of 2,263 degrees were awarded this year. M Tech/Ph D Dual-Degree and a joint PhD Degree with the University of Passau, Germany, were awarded for the first time this year.

Presenting a report on the Institute's performance

A joint PhD Degree with University of Passau, Germany, was awarded for the first time this year

in the last academic year, Prof. Bhaskar Ramamurthi, Director, IIT-Madras, said, "The past academic year has been very rewarding for IIT-M. It has not only sustained the number 1 ranking among engineering institutes in the NIRF ranking for the second year running, but has been ranked in the 2nd position for overall performance among all universities in India " Date: 22nd July 2017 Publication: Dinamalar Edition: Chennai Page no.: 5 Journalist: NA Headline: 2,263 students get degrees in IIT Convocation

URL: http://www.dinamalar.com/news\_detail.asp?id=1817145

# ஐ.ஐ.ழ., பட்டமளிப்பு விழா 2,263 பேர் சான்றிதழ் பெற்றனர்

சென்னை, ஜூலை 22-சென்னை, 2.2.4., பட்டமளிப்பு விழா வில், 2,263 மாணவர்கள் பட்டம் பெற்றனர்.

தேசிய உயர்கல்வி தொழிற்நுட்ப கல்வி நிறு ഖബ്ഥന്ത, சென்னை, ஐ.ஐ.டி.,யின், 54வது பட்டமளிப்பு விழா, கல் லுாரி வளாகத்தில் நேற்று நடந்தது.

ஐ.ஐ.டி.,யின் நிர்வாக குழு தலைவரும், மஹிந் திரா நிறுவன நிர்வாக இயக்குனருமான, பவன் கோயங்கா தலைமை வகித்தார். விழாவில், கல் லூரி இயக்குனர் பாஸ்கர் ராமமூர்த்தி, கல்லுாரியின் செயல்திறன் ஆண்டு அறிக் கையை சமர்ப்பித்தார்.

சிறப்பு விருந்தினராக, ஆதார் அட்டைக்கான ஆணைய முன்னாள் தலை வர், நந்தன் நிலேகனி பங்கேற்று பேசினார்.

விழாவில், மாணவியர், 21 மாற் றுத் திறனாளிகள் வில் பட்டம் பெற்றனர். பட்டம் பெற்றனர். பட்டம் பெற்றனர்.

பேர், மெக்கானிக்கல் பிரி சயின்ஸ் பிரிவில், 162 பேர் வித்யா ராமசாமி, சஷ்வத் வழங்கப்பட்டன.



📕 சென்னை, ஐ.ஐ.டி.,யின், 54வது பட்டமளிப்பு விழா, நேற்று அடையாறில் நடந்தது. இதில், மத்திய அரசின், ஆதார் அமைப்பின் முன்னாள் தலைவர், நந்தன் நிலேகனி பட்டங்களை வழங்கினார். உடன், ஐ.ஐ.டி.,யின் நிர்வாகக் குழு தலைவர் 284 பவன் கோயங்கா மற்றும் இயக்குனர் பாஸ்கர் ராமமூர்த்தி.

உட்பட, 2,263 பேர் எலக்ட்ரிக்கல் – எலக்ட் ரானிக்ஸ், 273; சிவில் கான பரிசுகள், சின்மய் அதிகபட்சமாக, 375 இன்ஜி., 236; கம்யூ., ஜா, விஷால் கட்டாரியா, ரீதியாக சிறப்பு பரிசுகள்

விழாவில், சிறப்பிடத்துக் வழங்கப்பட்டன.

நிதின் ஆகியோருக்கு இது தவிர, 69 பேருக்கு, துறை Date: 22nd July 2017 Publication: Dinakaran Edition: Chennai Page no.: 2 Journalist: NA **Headline: IIT Madras Convocation** 



- ஐஐடி மெடராஸின் 54வது பட்டமளிப்பு விழா சென்னை ஐஐடி வளாகத்தில் நேறறு நடந்தது. மத்திய அரசின் யூனிக் ஐடென்டிபிகேஷன் அதாரிட்டி ஆப் இந்தியா முன்னாள் தலைவர் மற்றும் இன்போசிஸ் இணை நிறுவனர் நந்தன் நீலகேனி கலந்துகொண்டு மாணவர்களுக்கு பட்டங்களை வழங்கினார். உடன் ஐஐடி மெட்ராஸ் ஆளுநர்கள் குழுமத்தின் தலைவர் மற்றும் மஹிந்தரா நிர்வாக இயக்குனர் பவன் கோயங்கா, ஐஐடி மெட்ராஸ் இயக்குனர் பாஸ்கர் ராமமூர்த்தி. Date: 22nd July 2017 Publication: The Hindu- Tamil Edition: Chennai Page no.: 3 Journalist: NA **Headline: IIT Madras Convocation** 



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Date: 22nd July 2017 Publication: Dinamani Edition: Chennai Page no.: 8 Journalist: NA

Professor: Prof. Bhaskar Ramamurthi

Alumni/students: Chinmay Jha, Vishal Katariya, Vidhya Ramaswamy & Shashwat Nitin Sinai Salgaocar Headline: Policy should be framed in a manner that enables Collection of information to be used by all

## தகவல் திரட்டுகளை அனைத்துத் தரப்பினரும் பயன்படுத்தும் வகையிலான கொள்கை அவசியம்'

சென்னை, ஜூலை 21: தசுவல் திரட் டுகளை அனைத்து தரப்பினரும் பயன்படுத்தக்கூடிய வகையிலான கொள்கையை அரசு வகுக்க வேண் டும் என இன்ஃபோசிஸ் நிறுவன இணை திறுலளரும், இந்திய தனி அடையாள ஆணையத்தின் (யு.ஐ ஏறு) முன்னாள் தலைவருமான நந் தன் நிலேகளி கூறினார்.

Gastremen gegiq.-alida 54 -ஆவது பட்டமளிப்பு விழா சென் னையில் வெள்ளிக்கிழமை நடை பெற்றது. இதில் சிறப்பு விருத்தின ராகப் பங்கேற்ற நந்தன் நிலேகனி பேசியது: உலக நாடுகளைப் போல் இந்தியாவும் தற்போது தொழில் நூட்பத்தில் அபார வளர்ச்சி பெற்று வருகிறது. கடந்த 8 ஆண் கும் அதிகமான வர்த்தகங்கள் ஒரு டுகளில் லட்சக்கணக்கான மக்கள் பயன்படுத்தக்கூடியவகையில்,ஏரா ளமான மென்பொருள் தொழில் நூட்பம் இந்தியாலில் நடைமு

றைக்கு வந்துள்ளது.

உதாரணமாக ஆதார் என். இதில் நாட்டில் உள்ள 100 கோடிக் கும் அதிமான குடிமக்களின் தனி தபர் தகவல்கள் திரட்டப்பட்டி ருக்கின்றன. ஒருவரின் புகைப்பட Alton Bac, Rob-ant any & கையாளரின் விவரங்களை அறிய, வாடிக்கையாளரின் தகவல்கனைப் பெற என பலதரப்பட்ட பரிவர்த் தனைகளுக்கு ஆதார் பயன்படுகி 20.351-

இதேபோல் ஜிஎஸ்டி, சந்தை பொருளாதாரத்தில் மிகப் பெரிய மாற்றத்தைக் கொண்டு வத்துள் ளது. இதன் மூலம், முதன் முறை யாக ஹாட்டிலுள்ள 80 லட்சத்துக் குடையின்கீழ் கொண்டுவரப்பட் Bararan, Azar apaul, Caruq. Az வாக்கான வர்த்தக பரிவர்த்தனை கள் குறித்த தகவல்கள் திரட்டப்ப

டுகின்றன. ஆதார், ஜி.எஸ்.டி., உள் னிட்ட நவீன தொழில் நுட்பங்கள் மூலம் தனி நூர், வர்த்தகம், வாக னம் போன்றவை குறித்த கோடிக் சுணக்கான தகவல்கள் திரட்டப் படுகின்றன. இந்தத் தகலல்கள் தாட்டின் பொருளாதார வளர்ச் சிக்கு மட்டுமல்லாமல், தொழில் டுறுவனங்கள் மற்றும் தொழில் முனைவோருக்கும் பயன்தரக் கூடி யதாகும். எனவே, இந்த தகவல் தரட்டை ஒவ்வொருவரும் பயன்ப டுத்தக்கூடிய வகையில், தெளிவான கொள்கையை அரசு வகுக்க வேண் Guissiant yout.

In' I wathing ങ്ളാനങ്ങ്. பிலெக், எம்.டெக், இரட்டைப் பட்டப் படிப்பு, ஆராய்ச்சி படிப் புகளை முடித்த 2,263 பேருக்கு பட்டச் சான்றிதழ்கள் வழங்கப் பட்டன. ஐஐடி இயக்குதர் பாஸ் கர் ராமமூர்த்தி மாணவர்களுக்கு பட்டச் சான்றிதழ்களை வழங்கி ணார்.பி.டெக். மெக்காளிக்கல் பிரி வில் கிறப்பிடம் பெற்ற மானவர் சின்மை ஜாவுக்கு, விழாவில் 'குடிய ரசுத் தலைவர் பரிசு', 'பாரத ரத்வா எம்.விஸ்வேஷ்ரம்யா நினைவுப் Lifter, Glida Gan appakan's com பரிசு ஆகியலை வழங்கப்பட்டன.

பி.டைக் இயற்பியல் படிப்பில் றெப்பிடம் பெற்ற விஷால் கடா ரியா என்ற மாணவருக்கு விழாவில் "Mayor INA anotasin " I To

ടങ്ങിയി എട്ടിയിലർ വെട്ടിയി யல் படிப்பில் சிறப்பிடம் பெற்ற மாணவி வித்யா ராமசாமிக்கு 'வி.சி னிலாசன் நினைவுப் பரிசும். ஐஐடி முன்னான் மாணவர் சங்க பரிகம் வழங்கப்பட்டது.

பிடிடக், ஏரோ ஸ்பேஸ் மாண வர் சவ்தவத் நிதின் சினல் சல்கோ கருக்கு டாக்டர் "சங்கர் தயால் ออุรับบรับเพื่อ อยุบริเตย์แก่ เ. 51Date: 22nd July 2017 Publication: PTI Edition: Online Journalist: NA Headline: Data has become the new oil, says Nilekani URL: http://www.ptinews.com/news/8910343\_Data-has-become-the-new-oil--says-Nilekani.html

#### Data has become the new oil, says Nilekani

Chennai, Jul 21 (PTI) Describing data as the "new oil", Infosys co-founder Nandan Nilekani today said India has a chance to build a completely new paradigm as he made a strong pitch for democratising data so that it is available to everybody and not just a few organisations.

"Data has become the new oil. Just like oil was the basis for transformation of the 20th century, data is the basis for 21st century.

"But it is very important that if data is the new oil, then data is democratised (and) that data is available to everybody to use," Nilekani said in his address at the 54th convocation of Indian Institute of Technology, Madras (IIT-M).

What kind of policies the country has on data is very important and it has to be made sure that all this "massive data that is going to get created is not just in a few pockets of organisations but everybody has access to that", he noted.

"In India, we have a chance to do that, thanks to the technology we have and what that means is that a consumer can get his own data to get a better loan, better health care, education. A business can use data to get better credit or better business.

"So therefore, if data is the new oil, and if we can restructure data to benefit every individual and every business, then we can lead to enormous amount of activity and economic growth. So we have a chance to build a completely new paradigm on data which no other country can do," he said.

Nilekani, former Chairman of the Unique Identification Authority of India (UIDAI), said India, due to its "digital explosion", was on the verge of enormous change which would create massive opportunities.

Over the last eight years, India has built a very sophisticated stack of software tools which a billion people can access, he said.

"It is based on everybody having a unique ID, the Aadhaar number. You can use that for doing authentication wherever you are (using) your phone, you can use that for doing a KYC (Know Your Customer) which allows you to open a bank account or get a SIM card. It allows you to electronically sign and store documents and it allows to access your own data," he said.

Such systems were now available at a 'scale' in India, he said, adding the Aadhaar system on June 30 did four crore authentications even as the direct cash transfer system built using the unique ID has crossed two billion transactions in the last three years.

These were really "large national scale systems" that have been built in India and will allow creating a new class of solutions, that would be dramatically cheaper than anything being done today.

India was also building systems which were creating national level platforms for many things and the GST Network was a good example of this, he said.

"We have talked about the GST and its impact on a single market and so on but it is also a huge source of data.

"Because, for the first time in India, eight million businesses will be on one platform, because earlier those who paid excise duty or VAT, they will all be on one platform. So all the taxpayers in India, the business taxpayers who pay indirect tax, they have to file invoice line item level returns into the GST network.

"So if you have 8 million businesses in India who do 120 line items a month, we are talking about a minimum of one billion line items that are going to be recorded every month in the GST system.

"So suddenly you will have data on a billion transactions a month across the country for every product and service that is being transacted. This is a huge, huge move forward," he said.

This data will allow getting a real time sense of the economy, because there will be information on a daily or weekly basis whether the economy was growing or not and which regions were doing well and so on, he said.

Digital transactions can also be used to avail credit.

"Suddenly eight million businesses will become eligible for credit as companies will be able to demonstrate their performance, and there are many other such systems coming up," he said.

Date: 22nd July 2017 Publication: The Times of India Edition: Online Journalist: NA Headline: Data has become the new oil, says Nilekani URL: <u>http://timesofindia.indiatimes.com/business/india-business/data-has-become-the-new-oil-says-</u> nilekani/articleshow/59703145.cms

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Date: 22nd July 2017 Publication: Edex Live Edition: Online Journalist: Johanna Deeksha Headline: Data is the new oil and should be democratised to be available for everybody, says Nandan Nilekani URL: http://www.edexlive.com/live-now/2017/jul/21/data-is-the-new-oil-and-should-be-democratised-

URL: <u>http://www.edexlive.com/live-now/2017/jul/21/data-is-the-new-oil-and-should-be-democratised-to-be-available-for-everybody-says-nandan-nilekani-870.html</u>

#### Data is the new oil and should be democratised to be available for everybody, says Nandan Nilekani



Nandan Nilekani was the Chief Guest at the Graduation Ceremony of IIT-M

A graduation ceremony is a university recognising its students for their wealth of knowledge and learning but at the IIT Madras convocation, the students were told that they had not learnt enough. "Learning to keep learning is the biggest lesson IIT can impart to you," said Nandan Nilekani, the Chief Guest at the ceremony.

Nilekani, himself a graduate from IIT Bombay, said that he wished he'd rather be a graduate sitting in the audience than be on stage, "I wish I was in your place because the pace of change in the world today is the fastest it has ever been. So many opportunities for innovation are arising constantly and it is easier now than ever for companies to enter new fields." he said.

Pointing out that almost everything these days is becoming digital and new systems and platforms are being created, Nilekani said that in the last 10 years there has been a high rate of automation. "Now since

new technologies are being invented, it is most essential for an employee to keep learning. You can just get a degree and say you know the subject, with constant change comes constant learning. You have to continuously keep re-learning," he explained.



Nilekani also said that with the fast pace of innovation it has become impossible to predict the future of tech or even businesses, so it's best to stay as updated as possible.

"Since Artificial Intelligence and other technologies, jobs that exist now will not exist in a few years. But you must remember you can take away jobs that can be done through automation but you can't take away the jobs where humans do better. Which is why quick learning and continuous learning is so essential," the Infosys co-founder said.

He said that in the last eight years India has had enormous digital exposure and had developed a sophisticated software environment. "Today, data is the new oil. Before oil used to be the basis of how the world worked but now data is the oil of the 21st century. But data should be democratised. It should not be something that only some pockets profit from," he explained.

Since Artificial Intelligence and other technologies, jobs that exist now will not exist in a few years

#### Nandan Nilekani, Co-founder, Infosys

He even spoke about his brainchild, the Aadhaar card and how it had changed the entire method in which our country works. "As on June 30, four crore authentication processed had taken place in one day, two billion transactions. Aadhaar allows you to access your own data too," he said.

As a final word of advice, Nilekani said that no matter what they do, the graduates should always aim to be on top of their game.

A total of 2263 degrees were awarded to the students this year and 1588 students were collecting it in person at the ceremony. Out if these 284 were women and 1304 were men, this also included 21 differently able students getting their degrees.

Date: 22nd July 2017 Publication: The Economic Times Edition: Online Journalist: NA Headline: Data has become the new oil, says Nandan Nilekani URL: <u>http://economictimes.indiatimes.com/tech/internet/data-has-become-the-new-oil-says-nandan-</u> nilekani/articleshow/59703373.cms

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"In India, we have a chance to do that, thanks to the technology we have and what that means is that a consumer can get his own data to get a better loan, better health care, education. A business can use data to get better credit or better business.

"So therefore, if data is the new oil, and if we can restructure data to benefit every individual and every business, then we can lead to enormous amount of activity and economic growth. So we have a chance to build a completely new paradigm on data which no other country can do," he said.

Nilekani, former Chairman of the Unique Identification Authority of India (UIDAI), said India, due to its "digital explosion", was on the verge of enormous change which would create massive opportunities.

Over the last eight years, India has built a very sophisticated stack of software tools which a billion people can access, he said.

"It is based on everybody having a unique ID, the Aadhaar number. You can use that for doing authentication wherever you are (using) your phone, you can use that for doing a KYC (Know Your Customer) which allows you to open a bank account or get a SIM card. It allows you to electronically sign and store documents and it allows to access your own data," he said.

Such systems were now available at a 'scale' in India, he said, adding the Aadhaar system on June 30 did four crore authentications even as the direct cash transfer system built using the unique ID has crossed two billion transactions in the last three years.

These were really "large national scale systems" that have been built in India and will allow creating a new class of solutions, that would be dramatically cheaper than anything being done today.

India was also building systems which were creating national level platforms for many things and the GST Network was a good example of this, he said.

"We have talked about the GST and its impact on a single market and so on but it is also a huge source of data.

"Because, for the first time in India, eight million businesses will be on one platform, because earlier those who paid excise duty or VAT, they will all be on one platform. So all the taxpayers in India, the business taxpayers who pay indirect tax, they have to file invoice line item level returns into the GST network.

"So if you have 8 million businesses in India who do 120 line items a month, we are talking about a minimum of one billion line items that are going to be recorded every month in the GST system.

"So suddenly you will have data on a billion transactions a month across the country for every product and service that is being transacted. This is a huge, huge move forward," he said.

This data will allow getting a real time sense of the economy, because there will be information on a daily or weekly basis whether the economy was growing or not and which regions were doing well and so on, he said.

Digital transactions can also be used to avail credit.

"Suddenly eight million businesses will become eligible for credit as companies will be able to demonstrate their performance, and there are many other such systems coming up," he said.

Date: 22nd July 2017 Publication: Skill Outlook Edition: Online Journalist: NA Professor: Prof. Bhaskar Ramamurthi, Prof Ashok Jhunjhunwala Headline: IIT Madras 54th Convocation: A total of 2,263 degrees were awarded this year URL: http://skilloutlook.com/education/iit-madras-54th-convocation-total-2263-degrees-awarded-year

#### IIT Madras 54th Convocation: A total of 2,263 degrees were awarded this year

Chennai, July 21, 2017: Indian Institute of Technology Madras (IIT Madras) celebrated its 54th Convocation today (21 July 2017) on campus. Mr Nandan Nilekani, Former Chairman, Unique Identification Authority of India and co-founder, Infosys, graced the occasion as Chief Guest. Dr. Pawan Goenka, Chairman, Board of Governors, IIT Madras and Managing Director, Mahindra & Mahindra, presided over the function.

Mr Nandan Nilekani presented prizes to the students while Prof. Bhaskar Ramamurthi, Director, IIT Madras, awarded degrees to the graduating students. A total of 2,263 degrees were awarded this year. 15 B.Tech Honours, 422 B.Tech, 422 M.Tech, 9 Dual-Degree (B.Tech Honours & M.Tech), 341 Dual-Degree B.Tech/M.Tech, 19 Dual-Degree MS/PhD including 2 for M.Tech/PhD dual degree, 140 M.Sc., 58 MBA, 36 MA, 175 MS and 257 PhD degrees were awarded this year. M.Tech/Ph.D dual degree and a joint PhD degree with the University of Passau, Germany were awarded for the first time this year.

Among students graduating this year IIT Madras had 2 foreign national students, one from M Tech and one from MSc, who were awarded their degrees. As is the custom of IIT Madras, the new graduates took their pledge after receiving their degree.

Presenting a report on the Institute's performance in the last academic year, Prof. Bhaskar Ramamurthi, Director, IIT-Madras, said, "The past academic year has been very rewarding for IIT-M. It has not only sustained the Number 1 ranking among Engineering Institutes in the NIRF ranking for the second year running, but has been ranked in the 2nd position for overall performance among all universities in India".

IIT Madras is proud that it has been recognized with the prestigious 2017 IEEE Spectrum Technology in the Service of Society Award for the Solar-DC Micro-grid Technology pioneered by Prof Ashok Jhunjhunwala.

IIT Madras has been active in furthering its international collaborations. During 2016-2017, it signed 35 Memoranda of Understanding (MoUs) with eminent international universities worldwide to facilitate student exchanges and faculty collaborations, taking the total number of active MoUs to 215 and Joint Degree Programs (JDP) to 15 and Joint Supervision Programs to 50.

A total of 769 students were placed through Placement Office, of whom a large fraction 364 joined core engineering companies. The internship office has enabled placement of 296 third year students into internships in 86 companies in the year under review. Focus was placed on contacting various Fortune 500 and other leading companies.

Addressing the graduating students, Mr Nandan Nilekani said, "Industry by industry dramatic changes are happening and we have to be prepared for a world where there will be a lot of change. The good news for you students is that you are graduating from an institute like IIT Madras. But the bad news is that you can't stop learning because you can't predict what the future requirements will be. Your biggest takeaway from IIT Madras is going to be learning to learn".

He further added, "Data is the new oil, it will be the business of 21st century. But it's important that it is available for everyone to use and not restricted to a few pockets so that a common consumer can use it for varied requirements like better healthcare, better choices and so on".

Out of the 2,263 degrees being awarded, 1,588 students are collecting in person. Out of these, there are 284 women and 1,304 men. There are also 21 differently-abled students getting degrees.

Date: 22nd July 2017 Publication: India TV Edition: Online Journalist: NA Headline: Data has become the new oil, says Nandan Nilekani URL: <u>http://www.indiatvnews.com/business/india-data-has-become-the-new-oil-says-nandan-nilekani-392524</u>

#### Data has become the new oil, says Nandan Nilekani

Describing data as the "new oil", Infosys co-founder Nandan Nilekani today said India has a chance to build a completely new paradigm as he made a strong pitch for democratising data so that it is available to everybody and not just a few organisations.

"Data has become the new oil. Just like oil was the basis for transformation of the 20th century, data is the basis for 21st century. But it is very important that if data is the new oil, then data is democratised (and) that data is available to everybody to use," Nilekani said in his address at the 54th convocation of Indian Institute of Technology, Madras (IIT-M).

What kind of policies the country has on data is very important and it has to be made sure that all this "massive data that is going to get created is not just in a few pockets of organisations but everybody has access to that", he noted.

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India was also building systems which were creating national level platforms for many things and the GST Network was a good example of this, he said.

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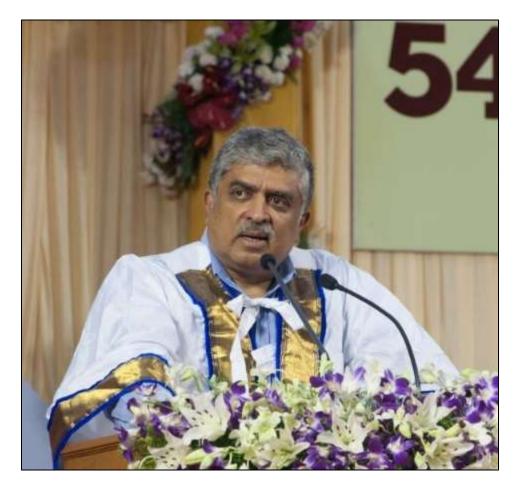
This data will allow getting a real time sense of the economy, because there will be information on a daily or weekly basis whether the economy was growing or not and which regions were doing well and so on, he said.

Digital transactions can also be used to avail credit. "Suddenly eight million businesses will become eligible for credit as companies will be able to demonstrate their performance, and there are many other such systems coming up," he said.

Date: 22nd July 2017 Publication: Vikatan Edition: Online Journalist: NA Headline: Nandan Nilekani explains benefits of Aadhar and GST URL: <u>http://www.vikatan.com/news/miscellaneous/96457-nandan-nilekani-explain-benefits-of-aadhaar-and-gst.html</u>

#### "ஆதார், ஜி.எஸ்.டி-யால் என்னவெல்லாம் நன்மை?" - விளக்கும் நந்தன் நீல்கேனி

நாட்டையே தற்போது பரபரப்பாக வைத்திருக்கும் ஆதார் கார்டு திட்டத்தின் முதல் விதையைத் தூவியவர், நந்தன் நீல்கேனி. இன்ஃபோசிஸ் நிறுவனத்தின் இணை நிறுவனர், ஆதார் நிறுவனத்தின் முன்னாள் சேர்மன், கடந்த நாடாளுமன்ற தேர்தலில் காங்கிரஸ் கட்சியின் பெங்களூரு தெற்கு தொகுதி வேட்பாளர் என பன்முகம் கொண்ட இவர், மெட்ராஸ் ஐ.ஐ.டி.,யில் நேற்று நடைபெற்ற பட்டமளிப்பு விழாவில் சிறப்பு விருந்தினராக கலந்துகொண்டார். அப்போது மாணவர்களிடையே உரையாற்றிய அவர், ஆதார், ஜி.எஸ்.டி, ஆட்டோமேஷன் என பலதுறைகளை தொட்டு பேசினார். அப்படி மாணவர்களுக்கு அவர் அளித்த ட்ரெண்டி அட்வைஸ் இதோ...



"சென்னை ஐ.ஐ.டி.,யின் பட்டமளிப்பு விழாவிற்கு வந்ததற்காக மகிழ்ச்சியடைகிறேன்.

நான் சுமார் 30 ஆண்டுகள் ஸ்டார்ட்அப்பில் பணிபுரிந்திருக்கிறேன். அதுமட்டுமில்லாமல் அரசின் திட்டங்களில் கூட ஸ்டார்ட் அப்களில்தான் நான் பணியாற்றினேன். எனவே என் வாழ்நாள் முழுவதும் ஸ்டார்ட் அப்பிலேயே பணிபுரிந்திருக்கிறேன் என சொல்லலாம். இந்த துறையில் தற்போது நடக்கும் அளவிற்கு மிகப்பெரிய மாற்றங்கள் எப்போதுமே நடந்ததில்லை. இன்று தொழில்நுட்பங்களால் பல சவால்களைச்சந்தித்து வருகிறோம்.

இன்று உலகில் சுமார் 2.5 பில்லியன் மக்களிடம் ஸ்மார்ட்போன்கள் இருக்கின்றன. இதுமட்டுமின்றி, அனைத்து டிவைஸ்களும் ஒன்றோடு ஒன்று இணைக்கப்பட்டதாகவும் இருக்கின்றன. இப்படி மட்டுமே உலகில் தற்போது சுமார் 100 பில்லியன் டிவைஸ்கள் ஒன்றோடு ஒன்று கனெக்ட் செய்யப்பட்டிருக்கின்றன. இதெல்லாம் வெறும் ஆரம்பம்தான். சரி... இவையெல்லாம் என்ன செய்யும்? நிறுவனங்கள் புதுப்புது தொழில்களை செய்வதற்கு இவை ஆதாரமாக அமையும். எனக்கு முன்னாள் பேசிய கோயங்கா, ஆட்டோமொபைல் துறையை பற்றி இங்கே குறிப்பிட்டிருந்தார். ஆட்டோமொபைல் துறையானது பல வருடங்களாக, சில நிறுவனங்களின் கையில் மட்டுமே இருக்கிறது. ஆட்டோமொபைல் உலகில் இந்த நிறுவனங்கள் மட்டுமே ஆதிக்கம் செலுத்தி வந்தன. ஆனால் எலெக்ட்ரிக் கார்கள், டிரைவர்லஸ் கார்கள் போன்றவையெல்லாம் வந்தபின்னர் ஆட்டோமொபைல் துறை நிறைய மாற்றங்களைக் கண்டுவருகிறது.

நீங்கள் வருங்காலத்தில் என்ன வேலைக்கு போவீர்கள் என்பதை யூகிக்கவே முடியாது. எந்த மாதிரியான நிறுவனங்கள் வருங்காலங்களில் இருக்கும் என்பதையும் நம்மால் தற்போது யூகிக்க முடியாது.

இந்த மாற்றம் என்பது ஆட்டோமொபைல் துறையில் மட்டுமில்லை. பல துறைகளில் நடந்து வருகிறது. உதாரணமாக விளம்பர நிறுவனங்களை எடுத்துக்கொள்ளுங்கள். கடந்த பத்து வருடங்களில் எந்தளவிற்கு மாற்றங்களைக் கண்டுவிட்டது பாருங்கள்? இன்று பெரும்பாலான விளம்பரங்கள் டிஜிட்டல்மயமாகிவிட்டன. இப்படி ஒவ்வொரு துறையிலும் மாற்றங்கள் நடந்துவருகின்றன. புதிய சாதனையாளர்கள், புதிய தொழில்நுட்பங்கள் என அடிக்கடி மாறுதல்களைச் சந்தித்து வரும் ஒரு புதுமையான வேளையில் நாம் தற்போது இருக்கிறோம்.

ஐ.ஐ.டி மாணவர்களாகிய உங்களுக்கு ஒரே ஒரு நற்செய்தி என்னவென்றால், இன்றுடன் உங்கள் கல்லூரி வாழ்க்கை முடிந்துவிட்டது. அதாவது ஐ.ஐ.டி., யில் உங்கள்கல்வி முடிவுக்கு வந்துவிட்டது. ஆனால் சோகமான விஷயம் என்ன தெரியுமா? வாழ்க்கையில் உங்கள் கல்வி இன்னும் முடியவில்லை. நீங்கள் கற்றுக்கொள்வதை உங்களால் நிறுத்தவே முடியாது. வாழ்க்கை முழுவதுமே கற்க வேண்டிய கட்டாயம் இருக்கிற ஒரு யுகத்தில் நாம் நுழைந்திருக்கிறோம். ஏனெனில் நீங்கள் வருங்காலத்தில் என்ன வேலைக்கு போவீர்கள் என்பதை யூகிக்கவே முடியாது. எந்த மாதிரியான நிறுவனங்கள் வருங்காலங்களில் இருக்கும் என்பதையும் நம்மால் தற்போது யூகிக்க முடியாது. சுயதொழில் முனைவோர்கள் வருங்காலங்களில் என்ன மாதிரியான பிசினஸ் செய்வார்கள் என்பதையும் நம்மால் யூகிக்கமுடியாது. எனவே தற்போது நீங்கள் என்ன படித்திருந்தாலும், வருங்காலங்களில் நிறைய படிக்க வேண்டியிருக்கும். குறிப்பிட்ட கால இடைவெளிகளில் உங்கள் கற்றல் மாறிக்கொண்டே இருக்கும். எனவே வாழ்க்கை முழுவதும் புதிய விஷயங்களைக் கற்றுக்கொள்வதற்கு தயாராக இருங்கள். இந்த ஐ.ஐ.டி.,யில் இருந்து எடுத்துசெல்ல வேண்டியது வெறும் பாடங்களை மட்டும் அல்ல. எப்போதும் புதிய விஷயங்களை கற்க தயாராக இருக்கும் மனநிலையைத்தான் இங்கிருந்து எடுத்து செல்லவேண்டும்.



தற்போது இருக்கும் வேலைகளில் மிகப்பெரிய மாற்றங்களை ஏற்படுத்தக்கூடியதாக இருக்கப்போவது ஆட்டோமேஷன்தான். கடந்த சில வருடங்களாக மெஷின் லேர்னிங், ஆர்ட்டிஃபிஷியல் இன்டலிஜென்ஸ், டீப் லேர்னிங், நியூரல் நெட்வொர்க்ஸ் போன்றவை அனைத்தும் வேகமாக வளர்ந்துவருகிறது. இவை அனைத்துமே இயந்திரங்களை மேலும் மேலும் ஸ்மார்ட்டாக மாற்றுபவை. இந்த மாற்றங்கள் தொடர்ந்து நடந்துகொண்டேதான் இருக்கும். எனவே இன்று இருக்கும் பணிகள் எதுவும் நாளை இருக்காது. எனவே வாழ்நாள் முழுவதும் கற்றுக்கொண்டே இருக்க வேண்டும் என்பதை மட்டும் நினைவில் வைத்துகோள்ளுங்கள்.

இதில் இன்னொரு முக்கியமான விஷயமும் இருக்கிறது. அதாவது, மனிதர்கள் செய்துவந்த பல பணிகளை இயந்திரங்கள் ஆக்கிரமித்துவிட்டன. ஆனால் மனிதர்களால் மட்டுமே செய்ய முடிகிற வேலைகளை எந்த இயந்திரமும் ஆக்கிரமிக்க முடியாது. மென்திறன்களை அதற்கு உதாரணமாக சொல்லலாம். உணர்ச்சிகள், குழுவாக வேலை செய்யும் திறன், தலைமைப் பண்பு, இலக்குகளை நிர்ணயித்து செயல்படுதல் போன்றவற்றை எல்லாம், எப்போதும் ஆட்டோமேஷன் ஆக்கிரமிக்கவே முடியாது அல்லவா? எனவே இதுபோன்ற ஆளுமை திறன்களை நன்கு வளர்த்துக்கொள்ளுங்கள்.

இந்தியாவைப் பொறுத்தவரை தொழில்நுட்பத்தில் மிகப்பெரிய மாற்றங்களைக் கண்டுவருகிறது. இந்த தொழில்நுட்பம் அனைத்து மக்களையும் சென்று சேர்வதற்கான வசதிகளும் நம்மிடம் இருக்கின்றன. ஆதார் மூலமாக, நடக்கும் பரிவர்த்தனைகள், பெறும் பயன்கள் கூட இதில்தான் சேரும். தற்போது உங்கள் மொபைலை பயன்படுத்தியே வங்கி கணக்கு துவங்க முடியும், ஆவணங்களை இணையத்தில் சேமித்து வைக்க முடியும், தேவைப்படும் நேரத்தில் எல்லாம் உங்கள் தகவல்களை எளிதாகப் பெறமுடியும். ஆதார் மூலமாகவே இத்தனை விஷயங்கள் நடக்கின்றன. கடந்த ஜூன் 30-ம் தேதி மட்டும் ஆதார் மூலமாக 4 கோடி முறை பாதுகாப்பு பரிசோதனைகள் நடைபெற்றுள்ளன. ஆதார் மூலமாக பணம் பரிமாற்றம் செய்யும் வசதி அறிமுகம் செய்தபின்பு 2 பில்லியன் பணவர்த்தனைகள் கடந்த மூன்று வருடங்களில் நடந்திருக்கின்றன. இதுபோன்ற தொழில்நுட்பங்கள் தற்போது ஏன் முக்கியத்துவம் பெறுகின்றன என்றால், இவைதான் தொழில்துறையில் பல்வேறு விஷயங்களை எளிதாக்கியிருக்கிறது. இந்த புதிய தொழில்நுட்பங்களை நிறுவனங்கள் பயன்படுத்துவதன் மூலமாக, பல நிறுவனங்கள் வணிகம் செய்யும் விதத்தையே மாற்றியிருக்கின்றன.

மிகப்பெரிய அளவிலான கட்டமைப்புகள் மூலமாக இவற்றை செய்வதன் மூலம் இன்னும் நிறைய நன்மைகளை தேசிய அளவில் நம்மால் பெறமுடியும். அதற்கு உதாரணம்தான் ஜி.எஸ்.டி நெட்வொர்க். இன்று பலரும் ஜி.எஸ்.டி.,யின்பாதகங்கள் பற்றி மட்டுமே பேசிக்கொண்டிருக்கிறார்கள். ஆனால் ஜி.எஸ்.டி மூலமாக நமக்கு நிறைய டேட்டா கிடைக்கவிருக்கிறது. இந்தியாவில் முதல்முறையாக 8 மில்லியன் பிசினஸ்கள், ஒரே அமைப்பின் கீழே இயங்கப்போகின்றன. அனைத்து வரிகளையும் ஒரே அமைப்பின் கீழே செலுத்தப் போகிறார்கள். இதனால் மறைமுக வரி செலுத்துபவர்களின் விவரங்கள் அனைத்துமே முறையாகப் பதிவு செய்யப்படும். எந்த பொருள் வாங்குகிறார்கள், எந்த சேவைக்கு வரி செலுத்துகிறார்கள் என்பதைக்கூட ஜி.எஸ்.டி நெட்வொர்க் மூலமாக நம்மால் பதிவு செய்யம்முடியும். எனவே நாட்டில் நடக்கும் பல மில்லியன் பரிவர்த்தனைகள் ஜி.எஸ்.டி மூலம் பதிவு செய்யப்படும். இது நாட்டில் மிகப்பெரிய மாற்றத்தை ஏற்படுத்தக்கூடியது. முதலில் நம்மால் நாட்டின் துல்லியமான பொருளாதார நிலையை இந்த டேட்டாவின் உதவியுடன் அறிந்துகொள்ள முடியும். நாள்தோறும், வாரந்தோறும் நம்மால் நம் நாட்டின் பொருளாதார நிலையை நன்கு ஆய்வு செய்யமுடியும். எந்த பொருள் அதிகம் விற்கிறது, எந்த மாநிலம் பொருளாதரத்தில் வளர்கிறது எனப் பல்வேறு விஷயங்களை நம்மால் எளிதில் கணிக்க முடியும். மேலும் நிறுவனங்களும் தங்களின் வர்த்தகத்தை துல்லியமாக மதிப்பீடு செய்யமுடியும். இது ஜி.எஸ்.டி.,யில் மட்டுமல்ல. இன்னும் சில விஷயங்களிலும் நடக்கிறது. எலக்ட்ரானிக் டோலிங் சிஸ்டம் மூலம் மட்டும் மாதந்தோறும் 7 மில்லியன் பரிவர்த்தனைகள் நடக்கிற்றன. ஆன்லைன் பில்லிங் சேவைகளும் இதேபோல செயல்படுகின்றன. இவை பொருளாதார அளவிலும் சரி; சமூக அளவிலும் சரி; பல விஷயங்களை சிறப்பாக செய்ய உதவும்.

20-ம் நூற்றாண்டின் மாற்றங்களுக்கு எண்ணெய்வளம்தான் அடித்தளமிட்டது. அப்படி 21-ம் நூற்றாண்டின் மாற்றங்களுக்கு இந்த டேட்டாதான் அடித்தளமிடப்போகிறது. ஆம். டேட்டாதான் இனி புதிய எண்ணெய். இதுபோன்ற புதிய தொழில்நுட்பங்கள், நிறைய புதிய நிறுவனங்கள் உருவாகவும், எற்கெனவே இருக்கும் நிறுவனங்கள் இன்னும் மேம்படவும் வாய்ப்புகளை உருவாக்குகின்றன. 20-ம் நூற்றாண்டின் மாற்றங்களுக்கு எண்ணெய்வளம்தான் அடித்தளமிட்டது. அப்படி 21-ம் நூற்றாண்டின் மாற்றங்களுக்கு இந்த டேட்டாதான் அடித்தளமிடப்போகிறது. ஆம். டேட்டாதான் இனி புதிய எண்ணெய். ஆனால் எண்ணெய்க்கும், டேட்டாவுக்கும் இருக்கும் ஒரு முக்கியமான வித்தியாசம் என்னவென்றால் டேட்டா எல்லாருக்கும் கிடைக்கப்போகிறது. தனிநபர் ஒருவர் தன்னுடைய டேட்டாவை லோன் வாங்க, மருத்துவ வசதி பெற, நல்ல கல்வி பெற பயன்படுத்தலாம். அதேபோல நிறுவனங்களும் இந்த டேட்டாவை வணிக ரீதியில் நல்ல விதமாகப் பயன்படுத்தலாம். எனவே இந்த டேட்டா தனிநபர்களுக்கும் சரி... நிறுவனங்களுக்கும் சரி... நிறைய நல்ல மாற்றங்களைத் தரப்போகிறது.

நிறைய மாற்றங்கள் நடந்துவரும் ஒரு யுகத்தில் நீங்கள் இருக்கிறீர்கள். எனவே அந்த மாற்றங்களை ஏற்றுக்கொள்ளவும், வாழ்நாள் முழுவதும் கற்பதற்கான மனநிலையை உருவாக்கிக்கொள்ளவும், உங்களுடைய ஆளுமை திறன்களை வளர்த்துக்கொள்ளவும் தயாராக இருங்கள். அப்படி செய்தால், நீங்கள் செய்யும் எந்தவொரு விஷயத்திலும் உச்சத்தில் இருப்பீர்கள்! Date: 22nd July 2017 Publication: Business World Edition: Online Journalist: NA Headline: Data Is The New Oil, Says Nandan Nilekani URL: <u>http://www.businessworld.in/article/Data-Is-The-New-Oil-Says-Nandan-Nilekani/22-07-2017-</u> 122626/

#### Data Is The New Oil, Says Nandan Nilekani

Describing data as the "new oil", Infosys co-founder Nandan Nilekani on Friday (21 July) said India has a chance to build a completely new paradigm as he made a strong pitch for democratising data so that it is available to everybody and not just a select few organisations.

"Data has become the new oil. Just like oil was the basis for transformation of the 20th century, data is the basis for 21st century. But it is very important that if data is the new oil, then data is democratised (and) that data is available to everybody to use," Nilekani said in his address at the 54th convocation of IIT Madras.

What kind of policies the country has on data is very important and it has to be made sure that all this "massive data that is going to get created is not just in a few pockets of organisations but everybody has access to that", he noted.

"In India, we have a chance to do that, thanks to the technology we have and what that means is that a consumer can get his own data to get a better loan, better health care, education. A business can use data to get better credit or better business," he said.

Date: 22nd July 2017 Publication: Money Control Edition: Online Journalist: NA Headline: Nandan Nilekani: Data has become the new oil URL: http://www.moneycontrol.com/news/business/nandan-nilekani-data-has-become-the-new-oil-2332825.html

#### Nandan Nilekani: Data has become the new oil

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"So therefore, if data is the new oil, and if we can restructure data to benefit every individual and every business, then we can lead to enormous amount of activity and economic growth. So we have a chance to build a completely new paradigm on data which no other country can do," he said.

Nilekani, former Chairman of the Unique Identification Authority of India (UIDAI), said India, due to its "digital explosion", was on the verge of enormous change which would create massive opportunities.

Over the last eight years, India has built a very sophisticated stack of software tools which a billion people can access, he said.

"It is based on everybody having a unique ID, the Aadhaar number. You can use that for doing authentication wherever you are (using) your phone, you can use that for doing a KYC (Know Your Customer) which allows you to open a bank account or get a SIM card. It allows you to electronically sign and store documents and it allows to access your own data," he said.

Such systems were now available at a 'scale' in India, he said, adding the Aadhaar system on June 30 did four crore authentications even as the direct cash transfer system built using the unique ID has crossed two billion transactions in the last three years.

These were really "large national scale systems" that have been built in India and will allow creating a new class of solutions, that would be dramatically cheaper than anything being done today.

India was also building systems which were creating national level platforms for many things and the GST Network was a good example of this, he said.

"We have talked about the Goods and Services Tax (GST) and its impact on a single market and so on but it is also a huge source of data.

"Because, for the first time in India, eight million businesses will be on one platform, because earlier those who paid excise duty or VAT, they will all be on one platform. So all the taxpayers in India, the business taxpayers who pay indirect tax, they have to file invoice line item level returns into the GST network.

"So if you have 8 million businesses in India who do 120 line items a month, we are talking about a minimum of one billion line items that are going to be recorded every month in the GST system.

"So suddenly you will have data on a billion transactions a month across the country for every product and service that is being transacted. This is a huge, huge move forward," he said.

This data will allow getting a real time sense of the economy, because there will be information on a daily or weekly basis whether the economy was growing or not and which regions were doing well and so on, he said.

Digital transactions can also be used to avail credit.

"Suddenly eight million businesses will become eligible for credit as companies will be able to demonstrate their performance, and there are many other such systems coming up," he said.

Date: 22nd July 2017 Publication: UNI Edition: Online Journalist: NA **Headline: 54th Convocation of IIT Madras** URL: http://www.uniindia.com/photoes/138986.html



CHENNAI, JULY 21 (UNI):-Nandan Nilekani, Former Chairman, Unique Identification Authority of India and Co-Founder, Infosys presenting degree certificate to a student at the 54th Convocation of IIT Madras, in Chennai on Friday. UNI PHOTO-121U

Date: 22nd July 2017 Publication: India Education Diary Edition: Online Journalist: NA Professor: Prof. Bhaskar Ramamurthi Headline: 54th Convocation held at IIT Madras URL: https://indiaeducationdiary.in/54th-convocation-held-iit-madras/

#### 54th Convocation held at IIT Madras



Chennai: Indian Institute of Technology Madras (IIT Madras) celebrated its 54th Convocation today, 21st July, 2017, on Campus. Shri. Nandan Nilekani, Former Chairman, Unique Identification Authority of India and co-founder, Infosys, graced the occasion as Chief Guest. Dr. Pawan Goenka, Chairman, Board of Governors, IIT Madras and Managing Director, Mahindra & Mahindra, presided over the function.

Shri. Nandan Nilekani presented prizes to the students while Prof. Bhaskar Ramamurthi, Director, IIT Madras, awarded degrees to the graduating students. A total of 2,263 degrees were awarded this year. 15 B.Tech Honours, 422 B.Tech, 422 M.Tech, 9 Dual-Degree (B.Tech Honours & M.Tech), 341 Dual-Degree B.Tech/M.Tech, 19 Dual-Degree MS/PhD including 2 for M.Tech/PhD dual degree, 140 M.Sc., 58 MBA, 36 MA, 175 MS and 257 PhD degrees were awarded this year. M.Tech/Ph.D dual degree and a joint PhD degree with the University of Passau, Germany were awarded for the first time this year.

Presenting a report on the Institute's performance in the last academic year, Prof. Bhaskar Ramamurthi, Director, IIT-Madras, said, "The past academic year has been very rewarding for IIT-M. It has not only sustained the Number 1 ranking among Engineering Institutes in the NIRF ranking for the second year running, but has been ranked in the 2nd position for overall performance among all universities in India".

IIT Madras is proud that it has been recognized with the prestigious 2017 IEEE Spectrum Technology in the Service of Society Award for the Solar-DC Micro-grid Technology pioneered by Prof Ashok Jhunjhunwala.

"IIT Madras has, in order to address the needs of our country in emerging areas as well as meet the aspirations of our students, introduced an upgrade path for our undergraduates to an M.Tech Degree in the emerging interdisciplinary areas of Data Sciences, Materials and Nano Technology, Biomedical Engineering, computational Engineering and Energy Systems", said Prof. Bhaskar.

IIT Madras has been active in furthering its international collaborations. During 2016-2017, it signed 35 Memoranda of Understanding (MoUs) with eminent international universities worldwide to facilitate student exchanges and faculty collaborations, taking the total number of active MoUs to 215 and Joint Degree Programs (JDP) to 15 and Joint Supervision Programs to 50.

A total of 769 students were placed through Placement Office, of whom a large fraction 364 joined core engineering companies. The internship office has enabled placement of 296 third year students into internships in 86 companies in the year under review. Focus was placed on contacting various Fortune 500 and other leading companies.

Addressing the graduating students, Shri. Nandan Nilekani said, "Industry by industry dramatic changes are happening and we have to be prepared for a world where there will be a lot of change. The good news for you students is that you are graduating from an institute like IIT Madras. But the bad news is that you can't stop learning because you can't predict what the future requirements will be. Your biggest take-away from IIT Madras is going to be learning to learn".

He further added, "Data is the new oil, it will be the business of 21st century. But it's important that it is available for everyone to use and not restricted to a few pockets so that a common consumer can use it for varied requirements like better healthcare, better choices and so on".

Out of the 2,263 degrees being awarded, 1,588 students are collecting in person. Out of these, there are 284 women and 1,304 men. There are also 21 differently-abled students getting degrees.

Date: 22nd July 2017 Publication: DNA Edition: Online Journalist: NA Headline: Data is the new oil, says Infosys co-founder Nandan Nilenkani URL: <u>http://www.dnaindia.com/india/report-data-is-the-new-oil-says-infosys-co-founder-nandan-nilenkani-2510065</u>

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Over the last eight years, India has built a very sophisticated stack of software tools which a billion people can access, he said.

"It is based on everybody having a unique ID, the Aadhaar number. You can use that for doing authentication wherever you are (using) your phone, you can use that for doing a KYC (Know Your Customer) which allows you to open a bank account or get a SIM card. It allows you to electronically sign and store documents and it allows to access your own data," he said.

Such systems were now available at a 'scale' in India, he said, adding the Aadhaar system on June 30 did four crore authentications even as the direct cash transfer system built using the unique ID has crossed two billion transactions in the last three years.

These were really "large national scale systems" that have been built in India and will allow creating a new class of solutions, that would be dramatically cheaper than anything being done today.

India was also building systems which were creating national level platforms for many things and the GST Network was a good example of this, he said.

"We have talked about the GST and its impact on a single market and so on but it is also a huge source of data.

"Because, for the first time in India, eight million businesses will be on one platform, because earlier those who paid excise duty or VAT, they will all be on one platform. So all the taxpayers in India, the business taxpayers who pay indirect tax, they have to file invoice line item level returns into the GST network.

"So if you have 8 million businesses in India who do 120 line items a month, we are talking about a minimum of one billion line items that are going to be recorded every month in the GST system.

"So suddenly you will have data on a billion transactions a month across the country for every product and service that is being transacted. This is a huge, huge move forward," he said.

This data will allow getting a real time sense of the economy, because there will be information on a daily or weekly basis whether the economy was growing or not and which regions were doing well and so on, he said.

Digital transactions can also be used to avail credit.

"Suddenly eight million businesses will become eligible for credit as companies will be able to demonstrate their performance, and there are many other such systems coming up," he said.

Date: 21st July 2017 Channel: DD Podhgai Edition: Electronic Journalist: NA Professor: Prof. Bhaskar Ramamurthi Headline: Convocation at IIT-Madras



Date: 21st July 2017 Channel: News 7 Edition: Electronic Journalist: Kirthika Kannan Professor: Prof. Bhaskar Ramamurthi **Headline: Convocation at IIT-Madras** 



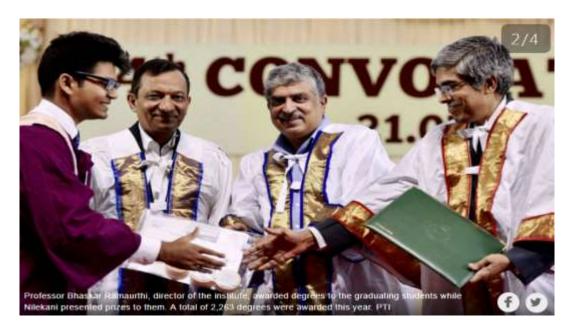
Date: 22nd July 2017 Publication: First Post Edition: Online Journalist: NA

Headline: IIT-Madras holds 54th convocation, Nandan Nilekani among guests in attendence [Photos] URL: <u>http://www.firstpost.com/photos/india-gallery/iit-madras-holds-54th-convocation-nandan-nilekani-among-guests-in-attendence-3843495.html</u>

### IIT-Madras holds 54th convocation, Nandan Nilekani among guests in attendence [Photos]

FP Staff Jul. 22 2017 16:24:22 IST









Date: 22nd July 2017 Publication: The Financial Express Edition: Online Journalist: NA Headline: Infosys cofounder Nandan Nilekani: India needs a policy on data URL: <u>http://www.financialexpress.com/economy/infosys-cofounder-nandan-nilekani-india-needs-a-policy-on-data/775121/</u>

#### Infosys cofounder Nandan Nilekani: India needs a policy on data

Former UIDAI Chairman Nandan Nilekani said that India needed a data protection law "as soon as possible" as it is a "fundamental thing" so that the users can demand from the domestic or foreign companies to share their data when needed.

Former UIDAI Chairman Nandan Nilekani on Saturday said that India needed a data protection law "as soon as possible" as it is a "fundamental thing" so that the users can demand from the domestic or foreign companies to share their data when needed. "This is not a technology problem, but a policy problem," Nilekani said here at the Delhi Economics Conclave 2017. Former Attorney General Mukul Rohatgi had said earlier that the government was planning to come out with a data protection policy this year. The need for the law was felt after online messaging service WhatsApp changed its policy of non -sharing of data for its users after acquisition by Facebook in 2016 to permit sharing of the attributes of its users for advertisement targeting.

Speaking at the different session former chairman of UIDAI Nandan Nilekani said data is the oil of the 21st century. Noting that data created huge businesses and data companies have unique scale advantages, Nilekani said, "India needs a policy on data." He also stressed that the government should make law to give people control of their own data. "India will go from data poor to data rich in the next three years. India has a unique digital infrastructure," PTI quoted Nilekani as saying.

On Friday, describing data as the "new oil", Infosys co-founder Nandan Nilekani today said India has a chance to build a completely new paradigm as he made a strong pitch for democratising data so that it is available to everybody and not just a few organisations. "Data has become the new oil. Just like oil was the basis for transformation of the 20th century, data is the basis for 21st century.

"But it is very important that if data is the new oil, then data is democratised (and) that data is available to everybody to use," Nilekani said in his address at the 54th convocation of Indian Institute of Technology, Madras (IIT-M). Date: 22nd July 2017 Channel: Malai Murasu Professor: Prof. Bhaskar Ramamurthi **Headline: Convocation at IIT-Madras** 



Date: 26th July 2017 Publication: Careers 360 Edition: Online Journalist: Harshita Das Professor: Prof. Bhaskar Ramamurthi & Prof Ashok Jhunjhunwala Headline: IIT Madras celebrates 54th convocation URL: https://engineering.careers360.com/articles/iit-madras-celebrates-54th-convocation

#### IIT Madras celebrates 54th convocation



The Indian Institute of Technology Madras (IIT Madras) celebrated its 54th convocation on July 21, 2017 at its campus. Former Chairman, Unique Identification Authority of India and co-founder of Infosys, Nandan Nilekani graced the occasion as the Chief Guest. Dr. Pawan Goenka, Chairman, Board of Governors, IIT Madras and Managing Director, Mahindra & Mahindra also presided over the function.

Prof. Bhaskar Ramamurthi, Director, IIT Madras awarded degrees to the graduating students while Nilekani awarded prizes to the students.

A total of 2,263 degrees were awarded this year. Out of which

15 B.Tech (Honours), 422 B.Tech, 422 M.Tech, nine Dual-Degree (B.Tech Honours & M.Tech), 341 Dual-Degree (B.Tech & M.Tech), 19 Dual-Degree (MS & PhD) including two Dual Degree for M.Tech & PhD, 140 M.Sc., 58 MBA, 36 MA, 175 MS and 257 PhD degrees were awarded this year. M.Tech/Ph.D dual degree and a joint PhD degree with the University of Passau, Germany were awarded for the first time this year.

Presenting a report on the Institute's performance in the last academic year, Prof. Bhaskar Ramamurthi said, "The past academic year has been very rewarding for IIT-M. It has not only sustained the Number 1 ranking among Engineering Institutes in the NIRF ranking for the second year running but has been ranked in the 2nd position for overall performance among all universities in India."

Prof. Ramamurthi added, "IIT Madras in order to address the needs of our country in emerging areas as well as meet the aspirations of our students, introduced an upgrade path for our undergraduates to an M.Tech Degree in the emerging interdisciplinary areas of Data Sciences, Materials and Nano Technology, Biomedical Engineering, computational Engineering and Energy Systems."

IIT Madras has been recognised with the 2017 IEEE Spectrum Technology in the Service of Society Award for the Solar-DC Micro-grid Technology pioneered by Prof Ashok Jhunjhunwala. IIT Madras has been active in furthering its international collaborations. During 2016-2017, the institute has signed 35 Memorandums of Understanding (MoUs) with international universities worl dwide to facilitate student exchanges and faculty collaborations, taking the total number of active MoUs to 215 and Joint Degree Programs (JDP) to 15 and Joint Supervision Programs to 50.

Addressing the graduating students, Nilekanisaid, "Industry by industry dramatic changes are happening and we have to be prepared for a world where there will be a lot of change. The good news for you students is that you are graduating from an institute like IIT Madras. But the bad news is that you can't stop learning because you can't predict what the future requirements will be. Your biggest take -away from IIT Madras is going to be learning to learn."

He further added, "Data is the new oil, it will be the business of 21stcentury. But it's important that it is available for everyone to use and not restricted to a few pockets so that a common consumer can use it for varied requirements like better healthcare, better choices and so on".

Out of the 2,263 degrees being awarded, 1,588 students collected their degrees in person. Out of these, there were 284 women and 1,304 men. There were also 21 differently-abled students. A total of 769 students were placed through Placement Office, of whom a large fraction 364 joined core engineering companies.

## IIT Madras is an industry friendly Institute

Date: 8th July 2017 Publication: The New Indian Express Edition: Chennai Page no.: 2 Journalist: SV Krishna Chaitanya Professor: Prof. Gitakrishnan Ramadurai

#### Headline: Coming soon: Intelligent travellers' guide

URL: <u>http://www.newindianexpress.com/cities/chennai/2017/jul/08/coming-soon-intelligent-travellers-</u>guide-1625742.html

## **Coming soon: Intelligent travellers' guide**

Special system will provide real-time, minute-by-minute updates & allow police to regulate traffic better

#### SV KRISHNA CHAITANYA IB Chenryle

BY the end of the month, Chennai Traffic Police will be equipped with an Advanced Traveller Information System (ATIS) that would provide a real-time and minute-by-minute update on traffic congestion. It would allow the police to monitor and regulate traffic better. The police will be able to seek information on delay, travel time and alternative routes via a web-based portal.

via a web-based portal. This hi-tech system has been jointly developed by Indian Institute of Technology (IIT) Madras and Centre for Development of Advanced Computing (C-DAC) Thiravananthaparam under Intelligent Transportation System (ITS) funded by the Union Department of Electronics and Information Technology (Deit').

It will be officially handed over to the city police this month, Gitakrishnan Ramadural of Centre of Excellence in Urhan Transport, Department of Civil Engineering, ITT Madza, told Express.

"We have worked for nearly three years on the project. This affirs an array of features to the police and commuters providing dynamic traffic information. The E-km curridor covering parts of Oid Mahabalipuram Boad (OMR), Velachery Taramin Road, Wilachery Bysuss Road, Sardar Patel Road and Raj Bhavan Road has 8 signalised intersections. This was used as the study curridor or test bed to implement the project. If's atechnology demonstrator, which can be mathy scaled-up to the entive city," Ramadural and. On the operational part, an IIT

On the operational part, an IFT official said GPS gadgets have been fitted to 120 bases plying in the study corridor. These provide data, using which, different sets of information are processed and fed into data dissimilation database, which in turn is relayed on Variable Message Sign (VMS) boarda, Tv a query on how it is different from Google Maps, Bamadurati said under unexpected situations such as an accident or road block, ATIS scores big as police are provided manual override option where they can enter updates and put it across to travellers via VMSs.

"Also, we provide live images of the traffic movement with the belp of 34 high-definition cameras installed en route which adds reliability" in said, before adding that \$4.2 crore was invested in the development of ATIS. Already a memorandum of un-

Adversary a memory momentum of understanding (MoU) has been signed with the city police, which has earmarked funds for the maintenance of the infrastructure. Ramadural said a 45-inch menitor and workstation has been set up at police commissioner's office. The project staff will ussist the police for a few months until they get constorable with the system, be said. Abbay Kuusar Singh, the former

Additional Commissioner of Pobine (Traffic), told Express the concept was good but its success depends on scalability. Currently, it is only a technology demonstration covering a 15-km stretch. The Transport Engineering Di-

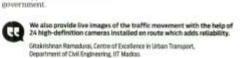
The Transport Engineering Division of ITT Madras is working closely with Tata Consultancy Services (TCS). The technology transfer would take place after formal approval from the Central government. GPS gadgets Fitted to 120 buses plying in the study corridor, these provide data, using which, different sets of information are processed and fed into data dissimilation database

#### Data dissimilation database

Relays the information to the Variable Message Sign (VMS) modules

#### Study corridor

The 15-km consider covering parts of Old Mahabalipusam Road (OMR), Velachery-Taramani Road, Velachery Main Road, Velachery Bypass Road, Sardar Patel Road and Raj Bhawan Road have 9 signalised intersectiom



Video cameras internet Variable Message Sign (VMS) module Under unexpected situations such as an accident or road block, ATIS provides the police a manual override option where they can enter updates and Website put it across to travellers via VM5s module Travellers can access traffic info through VMS Webbased Real-time Traffic Information

> Services offered Alternative routes and travel time Congestion and speed maps Bolay maps

Systems

Date: 12th July 2017 Publication: The Hindu Business Line Edition: Chennai/Delhi/Hyderabad/Kolkata/Mumbai/Ahmedabad/Pune/Bangalore/Kochi Page no.: 17 Journalist: T.E Raja Simhan Professor: Prof. Krishnan Balasubramanian Headline: IIT Madras joins hands with KPMG URL: http://www.thehindubusinessline.com/news/education/iit-madras-joins-hands-with-

kpmg/article9760682.ece

## IIT Madras joins hands with KPMG

Bid to monetise tech IPs developed by the institute

#### TE RAJA SIMHAN

Chennal, July 11

IIT Madras has increased its focus on filing more patents and monetise its Intellectual Property (IP). It has tied up with consultant KPMG to market its technology IPs, said Krishnan Balasubramanian, Dean, Centre for Industrial Consultancy & Sponsored Research, IIT Madras.

In 2016-17, the institute filed 120 patents, including 20 international, as against 106 in the previous financial year. Revenue from patents more than doubled to ₹1.85 crore in 2016-17 from nearly ₹90 lakh in the previous financial year.

"Revenue from patents more than quadrupled when compared with two years ago. We have made conscious effort to market our technology and made it easier for the industry to come and work with us," he told BusinessLine.

#### Licensing technology

Indian industry is waking up to licensing technology for competitive advantage. By licensing IPs, it makes more business sense for them. "We see more companies coming to us to discuss licensing IPs and trying to convert IPs that are generic into something that is more specific to their end use," he said.

On tie-ups with KPMG, Balasubramanian said it has its own IP division in India and they will market technologies developed at the institute.

The technology basket at IIT Madras is quite diverse and managing such a diverse range of technologies is a big challenge and needs specialists, he said.

#### Water treatment tech

In the recent times, water treatment technology has been attracting lots of attention with recent agreement with Eureka Forbes. Similarly, for solar-based technologies and battery-based technologies, there was tie-up with Amara Raja Batteries and for seating with Harita Seating, he said.

The institute has also joined hands with National Research Development Corporation, an enterprise of the Department of Scientific & Industrial Research, for commercialisation of technologies/ intellectual properties developed at IITM, he said. Date: 23rd July 2017 Publication: Times of India Edition: Chennai Page no.: 6 Journalist: NA Professor: Prof. Ashok Jhunjhunwala Headline: IIT-M launches new platform for fundraising

## IIT-M launches new platform for fundraising

**Chennai:** Indian Institute of Technology Madras on Saturday launched a new fundraising platform for raising endowment funds through alumni. Launched on the occasion of 'Alumnite', held to welcome the 2017 batch, the 'Joy of Giving to IIT-M' is intended to aid IIT Madras' "journey toward distinction in the fields of engineering education and research". It will work towards raising endowment funds for the institute through alumni and corporations from around the globe. Those interested can log on to - https://joyofgiving.alumni.iitm.ac.in/ -

The Alumni and funding under Corporate Social Responsibility (CSR) initiatives have cumulatively helped raise ₹177 crore in the last eight years from 5,000 donors. More than 30 companies are engaged with IIT-Madras at the moment. Fund raising by IIT-Madras grew by 22% in 2016-17.

An institute Chair, endowed in the name of late Prof. S Sampath by alumni of the 1964-66 batches, was also launched on the occasion. Prof. Ashok Jhunjhunwala is the current occupant. A new initiative to honour the "Founding Professors" with a Chair Chair Professorship was announced during the function. TNN Date: 23rd July 2017 Publication: Web India 123 Edition: Online Journalist: NA Headline: IIT-M launches new fund raising platform through alumni URL: https://news.webindia123.com/news/articles/India/20170723/3152764.html

#### IIT-M launches new fund raising platform through alumni

The Indian Institute of Technology-Madras todaylaunched a new fund raising platform for raising endowment funds through alumni. The new platform was launched on the occasion of 'Alumnite' held to welcome the 2017 batch, which graduated on Friday into the Alumni fold, the 'Joy of Giving to IITM', which was intended to aid IIT-M' journey towards global distinction in the fields of engineering education and research. It would work towards raising endowment funds for the institute through alumni and corporations from around the globe. The new initiative aims to place IIT-Mamong the 'Top 50' education and research institutes in the world. "Crowd funding is a new initiative of IIT-Madras, which has brought in Rs one crore in retail funds. Around 250 new donors have joined the initiative with the average donation size being Rs 35,000", a releasefrom IIT-M said. The Alumni and funding under Corporate Social Responsibility (CSR) initiatives have cumulatively helped raise Rs 177 crore in the last eight years from 5,000 donors. More than 30 companies were engaged with IIT-Mat the moment. The fund raising by IIT-Madras grew by 22 per cent in 2016-17. Welcoming the 2017 batch into the Alumni fold, Prof R Nagarajan, Dean, International and Alumni Relations, IIT-M, said IIT-M have successfully regained the No:1 ranking in NIRF for the second consecutive year. This was made possibly due to the contributions of the faculty, students, staff and the alumni. AlumNite" featured awards, prizes and entertainment. MORE UNI GV CS 1125

Date: 23rd July 2017 Publication: Skill Outlook Edition: Online Journalist: NA Headline: IIT Madras launches new fundraising platform for raising endowment funds through Alumni URL: <u>http://skilloutlook.com/education/iit-madras-launches-new-fundraising-platform-raising-</u> endowment-funds-alumni

#### IIT Madras launches new fundraising platform for raising endowment funds through Alumni

Chennai: The Indian Institute of Technology (IIT) Madras launched a new fundraising platform on 22 July 2017, for raising endowment funds through alumni.

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Prof. R. Nagarajan, Dean, International and Alumni Relations, IIT Madras, welcomed the 2017 batch info the Alumni fold. He also recalled that IIT-Madras had successfully regained the No:1 ranking in NIRF for the second consecutive year. This was made possibly due to the contributions of the faculty, students, staff and the alumni.

"AlumNite" features awards, prizes and entertainment. Students demonstrated their talents on campus one last time cultural performances such as singing and dancing, receiving awards for academic performance.

Prof. Bhaskar Ramamurthi, Director, IIT Madras, presented the Distinguished Alumnus Award to Prof. Anand Raghunathan, Purdue University, and Distinguished Visiting Professor, IIT Madras. A total of 12 Distinguished Alumnus Awards were announced this year.

He also conferred the YBG Varma Award for "Excellence-in-Teaching in Chemical Engineering", "Excellence-in-Research" award (instituted by Dr. Prakash Keshaviah), the "JC Bose Patent Award" (instituted by IIT-Madras alumni, Anil Kumar and Kundan Kumar, along with other faculty and student Awards

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'Ace Micromatic Chair Professorship' in Machine Tools and Manufacturing Technologies was also launched during the function. P. Ramadas, Managing Director of the company, will be the Chair. A book written by the Department of Management Studies alumna Rajeshwari Victor was also released.

Subramanian, Chief Executive Officer (Development Office), IIT Madras Charitable Trust, said, "Thanks to the active involvement of the IIT-Madras Alumni community, the Rs. 55 crore was raised in 2016-17, up from Rs. 45 crore in the preceding fiscal.

Mr. Ravi Venkatraman, President, IIT Madras Alumni Association, S. Gopal, President, IIT Alumni Industry Interaction Center, spoke.

A minute's silence was observed in memory of Mr. R. Natarajan, the first Registrar of IIT-Madras, who passed away recently.

Date: 24th July 2017 Publication: Telengana Today Edition: Online Journalist: NA Faculty: Prof. Bhaskar Ramamurthi, Prof R Nagarajan & Prof. Ashok Jhunjhunwala Alumni/student: Mr Anand Raghunathan & Rajeshwari Victor Headline: IIT Madras launches new fundraising platform URL: https://telanganatoday.com/iit-madras-launches-fundraising

#### IIT Madras launches new fundraising platform

It will work towards raising endowment funds for the institute through alumni and corporations from around the globe.



Hyderabad: The Indian Institute of Technology Madras launched a new fundraising platform on Saturday, for raising endowment funds through alumni, a statement from the university said.

Launched on the occasion of 'Alumnite' held to welcome the 2017 batch, which graduated on Friday, into the Alumni fold, the 'Joy of Giving to IITM' initiative is intended to aid IIT Madras' journey towards global distinction in the fields of engineering education and research.

It will work towards raising endowment funds for the institute through alumni and corporations from around the globe. It aims to place IIT-Madras among the 'Top 50' education and research institutes in the world.

Crowd funding is a new initiative of IIT-Madras, which has brought in Rs 1 crore in retail funds. Around 250 new donors have joined the initiative with the average donation size being Rs. 35,000.

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Date: 22nd July 2017 Publication: Chennai Patrika Edition: Online Journalist: NA Faculty: Prof. Bhaskar Ramamurthi, Prof. R. Nagarajan, Prof. Ashok Jhunjhunwala Student/Alumni: Mr Anand Raghunathan Headline: IIT-M launches new fundraising platform URL: http://news.chennaipatrika.com/post/2017/07/22/IIT-M-launches-new-fundraising-platform.aspx



Chennai, 22 July, 2017: The Indian Institute of Technology Madras launched a new fundraising platform on Saturday, 22 July 2017, for raising endowment funds through alumni.

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Date: 24th July 2017 Publication: DT Next Edition: Chennai Page no.: 4 Journalist: NA Professor: Prof. Bhaskar Ramamurthi, Prof. Ashok Jhunjhunwala Student/Alumni: Mr AnandRaghunathan Headline: IIT-M launches endowment fundraiser through alumni URL: <u>http://www.dtnext.in/News/City/2017/07/24091319/1039524/IITM-launches-endowment-</u>

#### fundraiser-through-alumni.vpf

## IIT-M launches endowment fundraiser through alumni

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IIT-Madras 2017 batch performs at the Alumnite event held on Saturday

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Bhaskar Ramamurthi (R), Director, IIT-M, presents the Distinguished Alumnus Award to Prof. Anand Raghunathan (L), Purdue University

(instituted by Dr Prakash Keshaviah), the "JC Bose Patent Award" (instituted by IIT-Madras alumn), Anlt Kumar and Kundan Kumar, along with other faculty and student awards. An Institute Chair, Endowed in the name of late Prof S Sangath by alumni of the 164-66 batches, was also launched on the occasion Prof. Ashok Jhumphurnwals is current occupant. A new initiative to honour the "Founding Professors" with a Chair was also announced during the function.

'AceMicromatic Chair Profossorship' in Machine Tools and Manufacturing Technologies was also launched durung the function. P Ramadas, Managing Director of the company, will be the Chair A book written by the Department of Management Studies alumna Rajeshwari Victor was released at the event.

M. Subramanian, Chief Raecutive Officer (Development Office), IT: Madras Charltabln. Trust, said, "Thanks to the active involvement of the IT-Madras Alumit community, Rs. 35 erore was raised in 2015/37, up from Rs. 45 erore in the proceeding fiscal. Date: 24th July 2017 Publication: Careers360 Edition: Online Journalist: NA Faculty: Prof. Bhaskar Ramamurthi, Prof. R. Nagarajan, Prof. Ashok Jhunjhunwala Student/Alumni: Mr Anand Raghunathan Headline: IIT-Madras launches platform for raising endowment funds URL: <u>https://engineering.careers360.com/articles/iit-madras-launches-platform-for-raising-endowment-</u> funds

#### IIT-Madras launches platform for raising endowment funds



The Indian Institute of Technology Madras (IIT Madras) has launched a new fund raising platform on July 22, 2017 for raising endowment funds through alumni.

Launched on the occasion of 'Alumnite', held to welcome the 2017 batch which graduated and entered the alumni fold on Friday, July 21, the 'Joy of Giving to IITM' is intended to aid IIT Madras' journey towards global distinction in the fields of engineering education and research. It will work towards raising endowment funds for the institute through alumni and corporations globally. It aims to place IIT-Madras among the 'Top 50' education and research institutes in the world.

Crowdfunding is another new initiative of IIT Madras which has brought in Rs. 1 crore in retail funds. Around 250 new donors have joined the initiative with the average donation size being Rs. 35,000. Alumni and funding under Corporate Social Responsibility (CSR) initiatives have cumulatively helped raise Rs. 177 crore in the last eight years from 5,000 donors. More than 30 companies are engaged with IIT Madras at the moment. Fundraising by IIT Madras grew by 22 per cent in 2016-17.

'AlumNite' featured awards, prizes and entertainment. Students demonstrated their talents on campus one last time through various cultural performances such as singing and dancing, apart from receiving awards for academic performances. Welcoming the 2017 batch into the alumni fold, Prof. R. Nagarajan, Dean, International and Alumni Relations, IIT Madras, announced how IIT Madras had successfully maintained the No. 1 ranking in NIRF for the second consecutive year, which was made possible only due to the contributions of the faculty, students, staff and the alumni.

Prof. Bhaskar Ramamurthi, Director, IIT Madras, presented the distinguished Alumnus Award to Prof. Anand Raghunathan, Purdue University, and Distinguished Visiting Professor, IIT Madras. A total of 12 Distinguished Alumnus Awards were announced this year. He also conferred the YBG Varma Award for 'Excellence-in-Teaching in Chemical Engineering', 'Excellencein-Research' award (instituted by Dr. Prakash Keshaviah), the 'JC Bose Patent Award' (instituted by IIT Madras alumni, Anil Kumar and Kundan Kumar) along with other faculty and student awards.

An Institute Chair, endowed in the name of the late Prof. S Sampath by alumni of the 1964-66 batches, was also launched on the occasion. Prof. Ashok Jhunjhunwala was declared as the current occupant. A new initiative to honour the 'Founding Professors' with a Chair was also announced during the function.

'AceMicromatic Chair Professorship' in Machine Tools and Manufacturing Technologies was also launched during the function. P. Ramadas, Managing Director of the AceMicromatic company, will serve as the Chair.

A book written by the Department of Management Studies alumna Rajeshwari Victor was also released.

M. Subramanian, Chief Executive Officer (Development Office), IIT Madras Charitable Trust, said, "Thanks to the active involvement of the IIT Madras Alumni community, a total amount of Rs. 55 crore was raised in 2016-17, up from Rs. 45 crore in the preceding fiscal."

Mr. Ravi Venkatraman, President, IIT Madras Alumni Association and S. Gopal, President, IIT Alumni Industry Interaction Center, were also among the speakers. A minute's silence was observed in memory of R. Natarajan, the first Registrar of IIT Madras, who passed away recently. Date: 31st July 2017 Publication: Inc 42 Edition: Online Journalist: Meha Agarwal Headline: Indian Startup Funding Of The Week [Funding Galore] URL: https://inc42.com/buzz/indian-startup-funding-9/

#### Indian Startup Funding Of The Week [Funding Galore]

We bring you the latest edition of Funding Galore: Indian Startup Funding of the week. This week, 10 Indian startups raised about \$83 Mn in funding altogether and three startup acquisitions took place in the Indian startup ecosystem. (The startup funding calculations are based on the startups that disclosed their funding amounts.)

One of the most speculated Indian startup deals, which revolved around Snap deal's subsidiary FreeCharge was finally signed. Freecharge got acquired by Axis Bank for \$60 Mn. The acquisition is expected to be completed within two months. Earlier this week, Amazon also made an offer of about \$70 Mn - \$80 Mn for the acquisition of FreeCharge. At the same time, it was also reported that Amazon poured in \$214 Mn (INR 1,381 Cr) in its data services unit, Amazon Data Services India, in November 2016.

Another important Indian startup news was the Snapdeal Flipkart merger receiving in -principal approval from Ratan Tata, Temasek, BlackRock, and Foxconn. However, the final deal still awaits a nod from other minority shareholders including Premjilnvest and Ontario Pension Fund. The news came in justa day after the Snapdeal Board agreed to a \$950 Mn merger offer from Flipkart. Earlier this week, there were also reports of Infibeam acquiring Snapdeal as well. However, Infibeam denied any such developments.

Next up, Microsoft Corp. revealed intentions to invest \$50 Mn-\$100 Mn (INR 320 Cr-INR 640 Cr) in Indian startup Ola. In exchange, the technology giant will acquire a minority stake in the ride-hailing startup. Also, Ola is currently in talks with Chinese Internet conglomerate Tencent for a prospective \$400 Mn funding round. Tencent executives were in Bengaluru last week and they met the Ola management team to discuss the transaction.

#### Indian Startup Funding Of The Week

fork-startup fundingFork Media: Agnus Capital, the family office of promoters of pharma firm Strides Group invested an undisclosed amount in incubatee firm Fork Media. Advertising technology company Fork Media was founded by Verma and Upen Rai in February 2013.

creators gurukul-indian startuCreator's Gurukul: Yuvraj Singh invested an undisclosed amount in Delhibased coworking startup Creator's Gurukul. The cricketer has also come onboard as a partner and brand ambassador for the Indian startup.

bujus-startup fundingBYJU'S: This is the highest Indian startup funding of the week. Bengaluru-based edtech startup BYJU'S raised \$40 Mn in funding from China-based Tencent Holdings Limited. This latest

round of funding will help BYJU'S accelerate product development for new markets and enable inorganic growth through acquisitions.

noticeboard-startup fundingNoticeboard: Bengaluru-based staff communication platform Noticeboard raised \$1.2 Mn in a funding round led by Stellaris Venture Partners, BlackBuck founder Rajesh Yabaji, and Jayant Kadambi, co-founder of digital advertising company YuMe. With this investment Alok Goyal, Partner at Stellaris Venture Partners, will join Noticeboard's Board of Directors. The startup funding will be utilised to strengthen the design team, and to develop new products & technologies.

Jhakaas: Mumbai-based technology platform Jhakaas raised an undisclosed amount from US-based investor Amen Dhyllon. The startup funding will be utilised for technological enhancement and upgradation of the application and expansion of the network throughout India.

fab hotels-startup fundingFabHotels: This is the second-highest Indian startup funding of the week. Budget hotels brand FabHotels raised \$25 Mn in a Series B round led by Goldman Sachs and existing investor Accel Partners. The company will use the newly-raised funds from Goldman Sachs to double the number of hotel rooms on its platforms. It is also looking to strengthen its presence in select cities.

Thinkerbell Labs: Bengaluru-based assistive tech and edtech startup Thinkerbell Labs raised \$202K (INR 1.3 Cr) from Indian Angel Network's Rajesh Navaneetham, Manjunath Nayak, and Anand Mahindra, Chairman and MD at Mahindra Group. Rajesh Navaneetham will sit on the board of ThinkerBell Labs representing IAN. The Indian startup will utilise the funds to run pilots in the UK, setting up product, sales and content teams.

bigstylist-startup fundingBigStylist: Mumbai-based beauty services marketplace BigStylist raised \$1.2 Mn (INR 8 Cr) in a fresh funding round led by Info Edge. The startup funding has been raised via compulsorily convertible debentures (CCD). With the newly-secured funding, the Indian startup is looking to set up shop in Delhi NCR, and is also hoping to break even in the two cities it currently operates in, Mumbai and Pune.

1mg-indian stratup funding1mg: This is the third-highest Indian startup funding of the week. 1mg, the Gurugram-based healthtech startup raised an additional \$15 Mn funding in Series C round. The new funds were fuelled in by HBM Healthcare Investments along with existing investors Sequoia India, Maverick Capital Ventures, Omidyar Network, and Kae Capital. With the newly-raised funds, the 1mg team aims to further expand its online diagnostics and consultation services in India, specifically in smaller towns and cities. A part of the funding will be utilised in building new lines of business, i ntroducing corporate wellness offerings for their workforce, outpatients' insurance facilitation for insurance companies, and patient support and adherence programmes with pharma companies.

gympik-indian startupGympik: Gympik.com, an online marketplace for discovering fitness centres and gyms, secured \$1 Mn in funding from existing investor RoundGlass Partners. The startup funding will be used to expand its operations network to five more Tier II cities and to strengthen its technology team.

Besides the above-mentioned startup funding, Mukesh Ambani-led Reliance Industries Limited invested \$64.1 Mn in Balaji Telefilms Limited (BTL) against a 25% stock. The funding is to speed up content development initiatives, especially for ALTBalaji, the video on-demand platform of Balaji Telefilms. The funds will be utilised to provide the company with an impetus to compete with other OTT (over -the-top-content) service providers – both global and Indian.

#### Indian Startup Acquisitions Of The Week

Gurugram-headquartered Yatra acquired corporate travel service provider Air Travel Bureau (ATB) for an undisclosed amount. The acquisition strengthens Yatra's presence in India's burgeoning corporate travel sector. The deal, which has already received the approval of the Board of Directors of both companies, will take place through Yatra Online Inc.'s subsidiary Yatra Online Pvt Ltd.

Japanese advertising and public relations company, Dentsu Aegis Network acquired a 51% stake in digital media firm, Sokrati Technologies Pvt. Ltd. Pune-based Sokrati is a digital media startup.

#### Other Developments Of The Week

The Indian Institute of Technology-Madras launched a new fundraising platform for raising endowment funds through alumni. The platform would work towards raising endowment funds for the institute through alumni and corporations from around the globe.

SAIF Partners raised a fresh \$350 Mn fund, as part of its diverse investment strategy to back tech startups as well as brick-and-mortar companies. With the new funding, the firm's total assets under management (AUM) has reached the \$1 Bn mark. This is SAIF Partners' third India-dedicated fund.

Telangana Government announced its Innovation Policy to promote entrepreneurship in the state. Telangana will setup an early-stage investing vehicle T-Fund (Telangana Innovation Fund) in collaboration with T-Hub. A \$310 Mn (INR 2,000 Cr) master fund will be set up to invest in sector-specific startups, along with general venture capital funds. The state's government will also set up a \$38.7 Mn (INR 250 Cr) T-SEED fund to support seed stage startups.

Delhi-based oil PSU Gas (India) Limited or GAIL launched an initiative 'Pankh' (wings) to nurture startup entrepreneurs. GAIL has set aside a fund corpus of \$7.7 Mn (INR 50 Cr) to help startup entrepreneurs realise their potential.

Zone Startups is organising the fifth annual "The Next BIG Idea" contest in collaboration with the Government of Ontario, Canada. The contest selects five Indian startups and gives them an opportunity to tap into the North American market. This year, the winning startup will be awarded "The Aditya Jha India Entrepreneur Award," wherein it will be given a grant of INR 5 Lakhs and a one-year access to the accelerator programme at Zone Startups India.

## IIT Madras is a research-focused Institute

Date: 4th July 2017 Publication: The Wire Edition: Online Journalist: Dinesh C Sharma Professor: Prof T Asokan Headline: IIT Team Developing Affordable Trainer Robot for Medical Colleges URL: https://thewire.in/154011/iit-madras-surgical-robot-trainer/

#### IIT Team Developing Affordable Trainer Robot for Medical Colleges

The researchers estimate their robot will cost Rs 60-70 lakh, whereas commercial models cost Rs 12 crore. The difference could mean more hospitals will be able to afford the machine.



The IIt-M team with their trainer surgical robot. Credit: India Science Wire

New Delhi: Just like the industrial robots becoming increasingly common on factory floors, surgical robots are making their presence felt in hospitals. However, prohibitive costs and a lack of training facilities are hampering a faster rollout. A trainer surgical robot developed by the Indian Institute of Technology Madras (IIT-M) could help address this gap to some extent.

Surgeon-assisted robotic operations for several medical conditions are being performed at few tertiary care hospitals in the country. The use of robots offers greater precision and helps surgeons minimise the loss of blood by restricting incisions to smaller areas. Robotic surgery also allows for faster recovery and reduces the chances of complications. But not many hospitals can afford these robots due to their high costs and a lack of exposure to the associated technology.

Now, researchers at IIT-M have developed a surgical robot specifically for training purposes. Those varieties currently available in the market work on the master-slave principle. The surgeon, sitting away from the patient, controls the master robot and monitors surgery through a vision system, while a slave robot, holding the necessary surgical tool, performs and repeats the doctor's actions. The IIT-M training robot has a similar configuration. The master and slave arms have seven degrees of freedom each (i.e. seven ways in which they can act). The prototype has been shown to a few robotic surgeons, according to its developers, the feedback has been encouraging.

"For it to be to converted into a full-fledged surgical robot, it needs to undergo a large number of safety tests and regulatory approvals and clinical trials," explained T. Asokan, a professor in the department of engineering design. "This process can take a long time. But the robot developed by us can very well be used as a trainer robot in medical colleges." Asokan led the research effort under a project funded by the Department of Science and Technology. The current design is aimed at abdominal surgeries – but the developers have clarified that it could be extended to include other procedures in the future. To develop the prototype, the IIT-M team collaborated with urologists from PSG Medical college, Coimbatore, and an industrial partner.

It is estimated that the trainer robot will cost Rs 60-70 lakh. "The cost of a commercial robot is around Rs 12 crore. To get such a costly robot for training purposes would be impossible for medical colleges. An affordable trainer robot will help students to get trained on this futuristic technology," Asokan added.

Robotic surgeons, however, feel that much work needs to be done for any developmental robot to become usable on a large scale. "Just as airliners need skilled pilots, surgical robots are best operated by expert surgeons specifically trained in their nuances," said Dr Gagan Gautam, head of urologic oncology and robotic surgery at Max Institute of Cancer Care, New Delhi. "Surgical simulation, undoubtedly, is going to play a key part in getting the next generation of surgeons up to speed in performing next-generation surgeries."

This article was originally published by India Science Wire. Dinesh C. Sharma tweets at @dineshcsharma.

Date: 4th July 2017 Publication: Down to Earth Edition: Online Journalist: Dinesh C Sharma Professor: Prof T Asokan Headline: IIT Madras develops surgical robot for medical colleges URL: <u>http://www.downtoearth.org.in/news/iit-madras-develops-surgical-robot-for-medical-colleges-</u> 58194



#### IIT Madras develops surgical robot for medical colleges

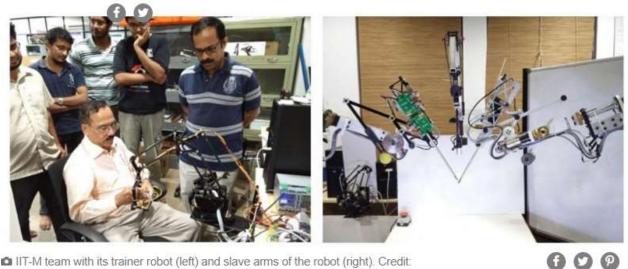
Not many hospitals can afford robots due to high costs and lack of exposure to robotic technology. Credit: US Department of Defense

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IIT-M team with its trainer robot (left) and slave arms of the robot (right). Credit: India Science Wire

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Surgical robots, currently available in the market, work on the principle of master-slave robot operation. The surgeon, sitting away from the patient, controls the master robot and monitors surgery through a vision system, while a slave robot holding necessary surgical tool repeats doctor's actions. The trainer robot developed by scientists is based on a similar configuration. The master and slave arms have 7 degrees of freedom each. The prototype has been shown to a few robotic surgeons and they have appreciated the product, according to the developers.

It is estimated that the trainer robot may cost between Rs 60 lakh to Rs 70 lakh. "The cost of a commercial robot is around Rs 12 crores. To get such a costly robot for training purposes would be impossible for medical colleges. An affordable trainer robot will help students to get trained on this futuristic technology," added Asokan.

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Gagan Gautam, head of urologic oncology and robotic surgery at Max Institute of Cancer Care, New Delhi. (India Science Wire) Date: 4th July 2017 Publication: Tech 2 Edition: Online Journalist: Dinesh C Sharma Professor: Prof T Asokan Headline: Indian researchers from IIT-M have developed a surgical robot for training purposes URL: <u>http://m.tech.firstpost.com/news-analysis/indian-researchers-from-iit-m-have-developed-a-</u> surgical-robot-for-training-purposes-386870.html

#### Indian researchers from IIT-M have developed a surgical robot for training purposes

#### By Dinesh C Sharma

Just like industrial robots that are increasingly becoming common on factory floors, surgical robots are making their presence felt in hospitals. However, prohibitive costs and lack of training facilities are hampering their faster rollout. A trainer surgical robot developed by the Indian Institute of Technology Madras (IIT-M) could help address this gap to some extent.

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India Science Wire

Date: 4th July 2017 Publication: Bio Voice Edition: Online Journalist: NA Professor: Prof T Asokan Headline: IIT-M team develops trainer robot for medical colleges URL: http://www.biovoicenews.com/iit-m-team-develops-trainer-robot-medical-colleges/

#### IIT-M team develops trainer robot for medical colleges

By Dinesh C Sharma

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Date: 4th July 2017 Publication: Dainik Jagran Edition: National Pahe no.: 14 Journalist: NA Professor: Prof T Asokan Headline: IIT Madras develops surgical robot

# आइआइटी मद्रास ने बनाया ट्रेनर सर्जिकल रोबोट

नई दिल्ली,आइएसउब्ल्यू : भारत के अस्पतालों में भी सर्जरी करने वाले रोबोट्स की जरूरत महसूस होने लगी है। हालांकि करोड़ों की लागत और प्रशिक्षण सुविधाओं की कमी इसमें रोड़ा हैं। इसी के मद्देनजर, आइआइटी मद्रास के शोधकर्ताओं ने प्रशिक्षण देने वाला ट्रेनर रोबोट विकसित किया है। जहां वैश्विक स्तर पर ऐसे रोबोट की कीमत 12 करोड़ के आसपास होती है, वहीं स्वदेश निर्मित रोबोट 60-70 लाख रुपये का पडेगा।

आइआइटी मद्रास के इंजीनियरिंग डिजाइन विभाग के प्रोफेसर और शोध टीम के मुखिया टी अशोकन के मुताबिक, यह रोबोट मेडिकल कॉलेजों में प्रयोग करने के लिए बहुत कारगर साबित होगा। उन्होंने कहा, एक कॉमर्शियल रोबोट करीब 12 करोड़ रुपये का पड़ता है। मेडिकल कॉलेजों के प्रशिक्षण के उद्देश्य से इतना महंगा रोबोट खरीदना संभव नहीं है। एक कम कीमत वाला ट्रेनर रोबोट छात्रों को भविष्य की इस टेक्नोलॉजी सीखने में मददगार साबित होगा। अशोकन ने कहा, इस



Date: 17th July 2017 Channel: Rajya Sabha TV Programme: Science Monitor Edition: Electronic Journalist: NA Professor: Prof. Abhijit Deshpande P Alumni/students: Ravi Khatri & Sarath Kumar Headline: New Device to help farmers UR:l: https://www.youtube.com/watch?v=HNeQ2KAR5O0&feature=youtu.be&a



Date: 17th July 2017 Channel: Rajya Sabha TV Programme: Gyan Vigyan Edition: Electronic Journalist: NA Professor: Prof. Abhijit Deshpande P Alumni/students: Ravi Khatri & Sarath Kumar Headline: New Device to help farmers URL: https://www.youtube.com/watch?v=bKlsE945PJ0&feature=youtu.be&a



Date: 20th July 2017 Publication: Smart Cities World Edition: Online Journalist: NA Professor: Prof. T. Pradeep Headline: New technologies are offering innovative ways for cities to ensure there is an adequate supply of safe, clean water URL: https://smartcitiesworld.net/special-reports/urban-aquabatics

### New technologies are offering innovative ways for cities to ensure there is an adequate supply of safe, clean water

Water sustainability is a growing challenge for cities worldwide. Factors such as climate change, population growth and urbanisation are putting cities' water supplies under strain.

Already, estimates from UNESCO suggest that 663 million people lack ready access to improved\* sources of drinking water, while the number of people without reliable access to water safe for human consumption is at least 1.8 billion.

New technologies are offering innovative ways for cities to ensure there is an adequate supply of safe, clean water.

Tapping new water sources to manage drought

The City of Cape Town in South Africa has been internationally recognised for its Water Conservation and Demand Management [WCWDM] Programme, a strategy which aims to minimise water wastage, better balance available water resources, and postpone the need for expensive capital infrastructure projects. However, the urgency of the schedule has been intensified by the fact that the region is currently experiencing a drought which the Mayor declared an official disaster in March.

An internal taskforce has been set up to tackle the issue, supported by an external advisory board.

Councillor Xanthea Limberg, Mayoral Committee Member for Informal Settlements, Water and Waste Services & Energy, Cape Town, comments, "We need to ensure that we dramatically shift how the city thinks of and consumes water, especially given the current rainfall patterns and the unpredictability of weather forecasts. We have to become a far more adaptable and resilient city."

The city has implemented measures to manage water usage such as Level 4B restrictions, increased tariffs and the roll-out of water management devices which can restrict residents' water supply to a certain level.

However, the situation is so severe, Cape Town also needs to look at how it can access additional water. One measure is to tap into previously unused water sources by drilling boreholes into the local Table Mountain Group aquifer, and connecting them to the reticulation system. An aquifer is a body of permeable rock which can contain or transmit ground water. A pilot project will now be undertaken which will inform larger-scale use of this resource.

Cape Town is also looking at setting up desalination plants and possibly water reclamation plants to diversify its water mix on a large scale. Pilot projects for these options are also being implemented as a matter of urgency, and are being designed in such a way that they can be scaled up quickly, if necessary.

"We are constantly engaging to understand what other alternatives are available to the city that we can incorporate into our water supply plan," says Limberg.

The city recently put out a city-wide request for new ideas, for example, and the water department also has a new technologies unit, specifically in place to look out for new innovations and assess their relevance for Cape Town's needs.

#### Cleaning water closer to home

A lack of local drinking water sources has been a long-term challenge in the City of San Diego – now, advanced technology and improved public support are changing this.

Historically, San Diego has relied on importing between 80 and 90 per cent of its water supply from the Colorado River and Northern California Bay Delta. The cost of this imported water has tripled in the last 15 years and continues to rise.

"With limited local control over our water supply, the City of San Diego is more vulnerable to droughts, climate change and natural disasters," explains J. Brent Eidson, External Affairs, Deputy Director, Public Utilities, City of San Diego.

Pure Water San Diego is the City's phased, multi-year program which aims to provide one-third of San Diego's water supply locally by 2035. Recycled water is taken from the North City Reclamation Plant and treated through a series of high-tech processes: Membrane filtration, reverse osmosis and UV disinfection with advanced oxidation. For regulatory reasons the purified water is then detained in an 'environmental buffer' (the Miramar Reservoir) as per regulations, before being blended into the drinking water system.

The first phase of the implementation will be completed in 2021, and by then the city expects to provide 30 million gallons of purified water per day -- which is between 15-18 per cent of the city's water supply.

Although new technologies are helping to solve city challenges, they have to be rigorously tested first, says Eidson. He explains, "State and federal regulators aren't as nimble as we can be at the local level. So when we're evaluating technology, what we need to make sure is that it's going to meet the regulatory requirements of those agencies. In the case of the Pure Water plant, for example, we had a demonstration plant to show that the new technology meets the requirements of our regulators."

#### New materials lower costs

In many cases the challenge is being able to implement new technologies in a cost-effective way. Scientists at the Indian Institute of Technology-Madras (IIT-M), led by Professor T. Pradeep, are developing new materials which lower the cost of water purification. The ability to deploy these on a wide scale could have a significant impact on public health issues.

For example, the World Bank suggests that 65 million people in Asia alone are facing health risks due to arsenic contamination of their drinking water. Long-term exposure can lead to chronic arsenic poisoning. Skin lesions, cancer, high blood pressure and reproductive disorders are among the effects.

Professor Pradeep and his team have developed an arsenic filter using nano-filtration technology –based on new types of absorbents which can be produced affordably and without electricity. The filtration device has been successfully tested in West Bengal and the Indian government has approved the technology.

Professor Pradeep comments, "The technology could provide a family with clean, arsenic-free drinking water for a year for the equivalent of around £2 per year."

Beyond India it is also being trialled in South Africa, Australia, Argentina, and Bangladesh, although has not been commercially rolled out there yet.

Pradeep is now also researching other advanced water technologies such as a scalable system for reducing the concentration of fluoride in water, a way to collect and use dew, cheaper water quality sensors, and desalination processes which don't remove all the minerals from water.

#### Real-time insights drive results

In addition to finding news sources of water and cleansing it effectively, Internet of Things (IoT) technology is increasingly helping businesses and residents get more actionable insights into their water u sage. It is also enabling cities, businesses and utilities to better share infrastructure and data in order to reduce duplicated spending and track trends.

In the city of Charlotte in the US, 61 commercial buildings were able to reduce their energy consumption by 19% over five years, which equated to \$26 million in energy bill savings. This was achieved through an initiative run by Envision Charlotte, a public-private 'plus' collaboration (with the plus being the utility company and the university), and involved interventions such as tenant outreach and education, as well as access to real-time granular data on energy usage.

Emily Yates, Deputy Director of Envision Charlotte, commented: "Having that granular data provided more of a real-time status, and empowered the building operators to make adjustments to reduce energy consumption – and many of these were actually low-cost and no-cost actions such as adjusting thermostats and turning lights offat night. We are now hoping to have the same results with drastic water consumption reduction."

In partnership with technology company Itron and Charlotte Water, Envision Charlotte is running a pilot network of smart water meters in 18 of its uptown commercial buildings. The buildings share a dashboard but the data is anonymised. It allows building owners to analyse their water usage compared to the other buildings annually and monthly, as well as see a more detailed daily water consumption chart. This highlights areas where they could be doing more to manage water efficiently and also quickly flags any unusual data which could suggest a leak or similar issue in the building.

Yates said: "Leveraging utilities and having them at the table for conversations has been extremely valuable for the work that we've been doing. It takes a cross-sector, collaborative approach to be successful in smart cities."

While water pressures are widespread, the specific issues vary from place to place. The challenge for cities is to choose the right technology and partner mix to enable them to respond in a manner that is timely, cost-effective, compliant and scalable.

\* An 'improved water source' is defined as one where human use is kept separate from use by animals and faecal contamination. However, water from an 'improved source' is not necessarily free of bacteria or other contamination and is not necessarily safe (Source UNESCO) Date: 20th July 2017 Publication: Patrika Edition: Online Journalist: NA Headline: IIT Madras develop technique to stop animals from destroying crops URL: http://www.patrika.com/news/science-tech/iit-madras-scientists-develop-technique-that-will-

stop-animals-from-destroying-crops-1626748/

### IIT Madras के वैज्ञानिकों की खोज, अब फसल बर्बाद नहीं कर पाएंगे जानवर

Updated: 2017-07-19 15:52:37 IST



जैसे ही कोई जानवर करीब आता है, इसमें लगे सेंसर उसकी उपस्थिति भांप लेते हैं और उपकरण में लगी लाइटें जलने लगती हैं

चेन्नई। भारतीय प्रौद्योगिकी संस्थान (आईआईटी), मद्रास के द रूरल टेक्नोलॉजी एक्शन ग्रूप फॉर तमिलनाडु के शोधकर्ताओं ने ऐसा सेंसर सिस्टम विकसित किया है, जो अलार्म और रोशनी के जरिए खेत में जानवरों की मौजूदगी की सूचना देकर किसानों को सतर्क करेगा। इसे आईआईटी-मद्रास के छात्र रवि खत्री और एस. सरथ ने मिलकर तैयार किया है।

इसे खेत से 10 मीटर की दूरी पर लगाया जाता है। जैसे ही कोई

जानवर करीब आता है, इसमें लगे सेंसर उसकी उपस्थिति भांप लेते हैं और उपकरण में लगी लाइटें जलने लगती हैं। अलार्म भी बजने लगता है। इससे डरकर जानवर दूर से ही भाग जाते हैं। किसान को भी पता चल जाता है कि खेत में जानवर घुस आया है।

#### सेंसर सिस्टम करेगा अलर्ट

इस यंत्र में 2 सेंसर लगाए गए हैं। एक पैसिव इंफ्रारेड व दूसरा माइक्रोवेव सेंसर। इसके अलावा एक अलार्म व रोशनी की तकनीक भी लगी है। इसके प्रोटोटाइप का परीक्षण आईआईटी-मद्रास के परिसर में हिरणों की मौजूदगी को जांचने में किया जा रहा है। प्रयोग सफल रहने पर अगस्त में चेन्नई के नेकुत्र क्षेत्र में इसे लगाया जाएगा। इसमें लगे पैसिव इंफ्रारेड सेंसर जानवर के शरीर के तापमान से प्रभावित होता है और माइक्रोवेव सेंसर जानवर की मौजूदगी को भांप लेता है। अभी इस उपकरण को बैट्री से चलाया जाता है। भविष्य में इसे सौर ऊर्जा की मदद से चलाने की संभावना को तलाशी जा रही है।

## रख–रखाव आसान

यह उपकरण इस प्रकार से विकसित किया गया है कि एक फसल लेने के बाद, जब खेत खाली हो तो किसान इसे आसानी से निकालकर सुरक्षित रख सकते हैं। जब किसान दोबारा फसल उपजाएं तो इस उपकरण को खेत में फिर से लगा सकते हैं। इस उपकरण की कीमत भी अधिक नहीं है। मात्र दो हजार रुपए में आने वाले इस उपकरण का रख-रखाव भी काफी आसान है। अच्छी बात यह है कि जानवर इस उपकरण का कोई नुकसान नहीं पहुंचा सकता। फिलहाल इस यंत्र को खेत से पांच से दस मीटर की दूरी पर लगाया जाता है। Date: 21st July 2017 Publication: News 18 Edition: Online Journalist: NA Headline: IIT Madras Techniques to Reduce Arsenic In Drinking Water URL: <u>http://hindi.news18.com/news/nation/iit-madras-invented-a-technique-to-reduce-arsenic-indrinking-water-1052130.html</u>

## आईआईटी मद्रास ने पेयजल में आर्सेनिक की मात्रा को कम करने के लिए ईजाद की तकनीक

आईआईटी मद्रास के एक ऐसी तकनीक विकसित की है जो पेयजल में आर्सेनिक की मात्रा को काफी हद तक कम कर देगा. इस प्रौद्योगिकी को 'अमृत' नाम दिया गया है.

लोकसभा में एक प्रश्न के उत्तर में पेयजल एवं स्वच्छता राज्य मंत्री रमेश चंदप्पा जिगाजिनागी ने कहा, ''आईआईटी-मद्रास ने पेयजल में आर्सेनिक की मात्रा 0.01 मिलीग्राम प्रति लीटर के स्तर से कम करने के लिए एक प्रौद्योगिकी का विकास किया है. इस प्रौद्योगिकी को 'अमृत:आर्सेनिक एंड मेटल रिमूवल बाई इंडियन टेक्नोलॉजी: नाम दिया गया है.''

उन्होंने कहा, '' इस प्रौद्योगिकी में नैनो स्केल का आयरन ऑक्सी हाइड्रोक्साइड का प्रयोग होता है जो उससे गुजरने वाले आर्सेनिक को ढूंढकर अलग करता है. यह जल प्यूरीफायर के लिए विकसित किया गया है.'' मंत्री ने कहा कि आईआईटी-मद्रास द्वारा विकसित यह प्रौद्योगिकी घरेलू और सामुदायिक दोनों स्तर पर उपलब्ध है. Date: 24th July 2017 Publication: Down To Earth Edition: Magazine Page no.: 12 Journalist: Dinesh Sharma:

## Headline: IIT Madras develops surgical robot

URL: <u>http://www.downtoearth.org.in/news/iit-madras-develops-surgical-robot-for-medical-colleges-58194</u>

## IIT Madras develops surgical robot

A TEAM of researchers led by IIT Madras has developed a surgical robot that can perform abdominal surgeries. The robot is estimated to cost between t60 lakh to t70 lakh. Since medical colleges use surgical robots for training, a trainer robot is a feasible option as a commercial robot costs around t12 crore. Surgical robots not only increase precision but also reduce chances of complications. Although this will address the problem of prohibitive cost, for any developmental robot to be used on a large scale, a lot remains to be done, say robotic surgeons. The IIT Madras team collaborated with urologists from PSG Medical College, Coimbatore, Tamil Nadu, and an industrial partner to ereate the robot. Date: 27th July 2017 Publication: The Hindu-Metro Plus Edition: Chennai Page no.: 5 Journalist: Naveena Vijayan Professor: Prof. Arun Menon Headline: Conserving history, brick by brick URL: http://www.thehindu.com/society/history-and-culture/conserving-history-brick-by-

brick/article19365025.ece



Old-world charm iClackwise from left) iClackwise from kmp Kalakohetna Foundation, Kestamath temple, and Dr Satyamurthy, founder president of REACH, inspecting the studio work on the SOftwark of the solo-year-old Varadoraja Perumat tempie in Kandhipuran evenue ABANCESSON'

## Conserving history, brick by brick

Meet conservators in the city who are helping keep heritage structures intact

### I NAVEENA VUAYAN

It is easy to build a new house, what is It is easy to build a new house, what is difficult is to restore an odd one, says ar-chiract formy fouridations. Conservation of heritage can be tricky, For, it is a field where our values the creativity of the original creatur more than une's own. The focus is on desing work that is as un-numerable according. The roots is not composed with a six un-multicable as possible - just like the res-toration of a Van Cogh painting, or a scalpture by Michelangelo, Trurtish common owner that are because it is Gogh's or Michelangelo's art, and they warn it to be an it way when it was first dones, "Su any intervention should be min-muma and each down if it is also already "So any intervention should be min-imum and only done if it to absolutely necessary," asys Kurtakone, who has re-stored and reformed the humes at Daka ethnot. Thins, the 300 year-old Pallan Palkon as part of Muaris Heritage Pro-ject, and recovered Kahlsheim theatre Ga 2015, among others. For the latter, "the bagers compliment J gav was it Appealantation and how the work of Kahl-chers formation and how the work." sherra Foundation) was here, he would ve liked it"

The challenge Most people however, consider restora-tion as bringing down a piece of history tion as bringing down a piece of history and buildings a new one hist stead, for instatux, the Danada temple is 50% new, points out Xoritaksee. "How can you call it a 1,500-year-old temple any more?" he asks. There is a fack of awareness about himitage structures and the concept of nestoration, ehgs in J. Chaudrasschurn, spokespressin of REEATH Foundation. And organisations study as REACH and Ans (how Foundasuch as REACH and Aga 8than Founda-tion and architects such as Kuriakose



#### STAY CLEAR

Unless 50% of the building is damaged, do not restore it. it is important to record the conditio the building before intervention, and the use of the methods and materials should be documented.

Even during restoration, the historic even barkg herotation, the interved, relevance should not be destroyed, and any work done should be governed by respect for aesthetic, historical and physical integrity of the cultural property. Additions should be less noticeable than the original material. Any intervention should be minimum and intervention should be minimum and reversible if technically possible. No attempt should be made to artificially age materials.

and Abba Namin Lambah are just a few names who are championing the cause of conservation.

Chandrasekaran throws light on the Chandraseskaran, throws light on the many atturnaries that have been demol-ished without a thought by people who are absolutely unaware that "any havi-age temptic beyond 100 years if albered or broken down without the knowledge of textose down without the knowledge or broken down writtent the knowledge of archaeological department would at tract punishment." It was a taxi driver, also a stendber of REACH it has 800 monitern from diverso fields connectual by their passion for heritage conserva-tion, who first soor the displated core dictor of the ancient Thraduent Shiva turnels excelled Chandrastero, When temple, recalls Chundrasekaran. When 1.36 in from REACH went to inspect the temple, they sow the nearby Perunal temple, renovated into a colourful "modern tiled mega hathroom like" structure!

#### All heritage buildings have hundreds of stories to tell. Each building should be considered a living thing

### Promoting awareness

Promoting awareness This is the sod plight of many such templas soday. Stones and incorptions of the old semplas are polled down. REACH amus to better the situation. help people know about their heritage, and volue it, through loctares, api-graphy and incortigition reading classes and field visits. Jeparathman says that over the nate law years, there have been and over the past few years, there have been an increasing number of youngstees who have been volunteering with



Estending research and support to wards heritage conservation, is also a group called National Centre for Safety of Heritage Structures at IIT-M. The group was started in 2013, with the alm of providing a platform to share know-ledge with the public, and also to im-prove collaborative R&D between acaprove collaborative 8001 tectween act-dumin, and implementing agencies. Today, one of their projects includes municering flow-heritagie structures; 81-por Building, Vironcia Public Hall, Sid-dique Sunti, Law Gollege and Themit Nulti Horel, that are along the line of Name some, must need a some a some time or time underground Memoryani work. The buildings- are checked commandly for any faults date to the integert of the metro construction, says Arm Mesoni, assistant professor, Civil Engineering, ICTM. The centre has provided tech-nical assistance in structural conserva-nous modern Machine Meson Form tion works at Madras High Court Com 100 works at matrix-high court calip-plet thermace waterprotoffing works, for TN PWD0, Kedamath Temple, Ut-maskhand (ör Archaeological Survey of Indka), Rashtrapati Bhawan dor INTAGH and CPWD0, and Bhant. Insurance building, Mount Road (for LIC) among relation.

others. "All the heritage buildings have burn "All the borriage buildings have hun-druch of norises to nell, each building should be considered a librag thing, in the past, the traditional craftware mod-to assign a gender to each store, make, fermile, gender neutral," says Kar-ialoze, One has to go beyond seeing a house as just brick and store, and un-derwand the cultural context. Date: 29th July 2017 Channel: Rajya Sabha TV- Gyan Vigyan Edition: Electronic Journalist: Ms. Bhavya Khullar Professor: Prof. Asokan Thondiyath Headline: IIT-Madras makes Robotic Surgery Trainers URL: https://www.youtube.com/watch?v= 21d2RYoNRk



Date: 29th July 2017 Channel: Rajya Sabha TV- Science Monitor Edition: Electronic Journalist: Ms. Bhavya Khullar Professor: Prof. Asokan Thondiyath Headline: IIT-Madras makes Robotic Surgery Trainers URL: <u>https://www.youtube.com/watch?v=YE5A2\_mZtms</u>



# IIT Madras is an innovation and entrepreneurship hub

Date: 4th July 2017 Publication: Hindustan Times Edition: Online Journalist: NA

Professor: Prof Bhaskar Ramamurthi, Prof R Nagarajan, Prof Nandan Sudarsanam, Prof Rahul Marathe, Prof N Ramesh Babu, Prof Shankar Narasimhan, Prof Raghunathan Rengaswamy, Prof Ashwin Mahalingam, Prof Mahesh Panchagnula, Prof Sankara J Subramanian, Prof R Krishnakumar, Prof B Ravindran, Prof Mohanasankar Sivaprakasam and Prof Sathyan Subbiah

Headline: IIT Madras talks innovation: Connects faculty with alumni and startups in sunny California URL: <u>http://www.hindustantimes.com/education/iit-madras-talks-innovation-connects-faculty-with-</u> alumni-and-startups-in-sunny-california/story-DI6TjNvDKepT4qma8VR1DK.html

## IIT Madras talks innovation: Connects faculty with alumni and startups in sunny California

IIT Foundation organised the Summer 2017 Summit at Santa Clara in California to enable faculty and alumni to get together and chalk out future plans, discuss innovations and more

It was all about making plans for the future, discussing innovations, reaching out to alumni, addressing problems and looking for opportunities that could make an impact globally. For the Indian Institute of Technology (IIT) Madras, this could only happen in sunny California. The Foundation Series - Summer 2017 Summit at Santa Clara, California, organised by the IIT Foundation, recently brought together the IIT Madras community, faculty, start-ups and alumni to collaborate with each other and with innovators in industry, academia, and think tanks.

Discussions ranged around technologies that enable Industry 4.0; capturing data and data sources (research on sensors and other devices that help capture data), communicating this data between machines and other devices/sensors/data sources; data analytics, modelling and simulation to use this data effectively. Also analysed was the actual manufacturing/automation/making process that is the end result (3D printing, creation of new applications, tools, devices, products, robots, systems such as Internet of Things or IOTs).

In the first such event organised by the IIT Madras Foundation, 15 academics and seven start-up founders from IIT Madras took part along with 22 industry leaders from the Bay Area.

In his address to the gathering, Prof Bhaskar Ramamurthi, director, IIT-Madras, shared news of the institute being ranked the best engineering institute in India by the National Institute Ranking Framework (NIRF), two years in a row. It also earned the highest revenues through consultancy projects for any engineering institute; and ranked among the top research groups in the world.

"While the event was a grand success and we may have exceeded the expectations of many, we also learned a lot. We need to use this as a launchpad, build on this momentum, and take this to the next level in the coming years," he later said after the event concluded.



Professor Bhaskar Ramamurthi, director, IIT Madras, addressing the Foundation Series - Summer 2017 Summit held at Santa Clara, California (Sourced)

Calling the meet a huge success, Prof R Nagarajan, dean, international and alumni relations, IIT Madras, said it would be replicated in the future in other cities where IIT Madras alumni were present in significant numbers.



"While the director (Prof Bhaskar) and myself have been travelling abroad and meeting local alumni, this is the first time an event of such magnitude has been organised, enabling direct interaction with IIT-Madras faculty members who are active researchers in Industry 4.0," he said

Other highlights were an IIT-Madras faculty panel elaborating on their research in healthcare technology, industrial consultancy and sponsored research and the interdisciplinary laboratory for data sciences.

This was followed by six interactive panel discussions on medicine, artificial intelligence and analytics, buildings and infrastructure, agriculture, manufacturing and energy. These panels had a blend of industry experts and venture capitalists offering their view of the innovative ideas and solutions attracting venture capital funding, while the IIT-Madras faculty members articulated the key research areas and problems they were trying to address.

Other faculty members from IIT-Madras included Prof Nandan Sudarsanam, Prof Rahul Marathe, Prof N Ramesh Babu, Prof Shankar Narasimhan, Prof Raghunathan Rengaswamy, Prof Ashwin Mahalingam, Prof Mahesh Panchagnula, Prof Sankara J Subramanian, Prof R Krishnakumar, Prof B Ravindran, Prof Mohanasankar Sivaprakasam and Prof Sathyan Subbiah. Date: 4th July 2017 Publication: Telangana Today Edition: Online Journalist: NA Professor: Prof. Bhaskar Ramamurthi Headline: IIT Madras community gathers in US to discuss tech with industry bigwigs URL: https://telanganatoday.com/iit-madras-us-tech

## IIT Madras community gathers in US to discuss tech with industry bigwigs

This was the first such event organised by IIT Madras Foundation. Fifteen academics and seven start-up founders from IIT Madras took part along with 22 industry leaders from the Bay Area.

Hyderabad: The IIT Madras Foundation recently organised the Foundation Series Summer 2017 Summit in Santa Clara, California, US, a statement issued by the foundation said.

The purpose of the summit was to bring together the IIT Madras community, including faculty, related start-ups and alumni. The team would collaborate with each other and with innovators in industry, academia, and think tanks. They will address problems and tap opportunities which could be global in nature.

Some of the topics discussed during this summit include:

- Technologies that enable Industry 4.0. These could be virtual/augmented reality technologies.
- Capturing data and data sources, which is to say, research on sensors and other devices that help capture data.
- Communicating this data between machines and other devices/sensors/data sources.
- Data analytics, modelling and simulation to use this data effectively
- The actual manufacturing/automation/making process that is the end result. This could be 3D printing, creation of new applications, tools, devices, products, robots, systems such as IOT (Internet of Things).

This was the first such event organised by IIT Madras Foundation. Fifteen academics and seven start-up founders from IIT Madras took part along with 22 industry leaders from the Bay Area.

Addressing the event, Prof Bhaskar Ramamurthi, IIT-Madras director, highlighted key achievements of IIT Madras. After the event, Prof Ramamurthi said, "While the event was a grand success and we may have exceeded the expectations of many, we also learned a lot. We need to use this as a launchpad, build on this momentum, and take this to the next level in the coming years."

At this meeting, the panel of IIT-Madras faculty elaborated their research in healthcare technology, industrial consultancy and sponsored research, and the interdisciplinary laboratory for data sciences.

This was followed by six interactive panel discussions on medicine, artificial intelligence and analytics, buildings and infrastructure, agriculture, manufacturing, and energy.

These panels had a blend of industry experts and venture capitalists offering their view of the innovative ideas and solutions that is attracting venture capital funding, while the IIT-Madras faculty members articulated the key research areas and problems they are trying to address.

Date: 4th July 2017 Publication: India Education Diary Edition: Online Journalist: NA

Professor: Prof Bhaskar Ramamurthi, Prof R Nagarajan, Prof Nandan Sudarsanam, Prof Rahul Marathe, Prof N Ramesh Babu, Prof Shankar Narasimhan, Prof Raghunathan Rengaswamy, Prof Ashwin Mahalingam, Prof Mahesh Panchagnula, Prof Sankara J Subramanian, Prof R Krishnakumar, Prof B Ravindran, Prof Mohanasankar Sivaprakasam and Prof Sathyan Subbiah

Headline: IIT Madras Foundation holds Summer 2017 Summit in California URL: <u>https://indiaeducationdiary.in/iit-madras-foundation-holds-summer-2017-summit-california/</u>

Chennai: IIT Madras Foundation organized the Foundation Series – Summer 2017 Summit at Santa Clara, California, recently. The purpose of the summit was to bring together IIT Madras community, faculty, start-ups and alumni to collaborate with each other and with innovators in industry, academia, and think tanks to address problems and opportunities that could be global in nature.

Some of the topics that were discussed during this summit include

 $\cdot$  Technologies that enable Industry 4.0 (these could be virtual/augmented reality technologies for instance),

· Capturing Data and Data Sources (research on sensors and other devices that help capture data),

 $\cdot$  Communicating this data between machines and other devices/sensors/data sources,

· Data Analytics, Modelling and Simulation to use this data effectively, and

• The actual Manufacturing/Automation/Making process that is the end result (this could be 3D printing, creation of new applications, tools, devices, products, robots, systems such as IOTs (Internet of Things).

This was first such event organized by IIT Madras Foundation. Fifteen academics and seven start-up founders from IIT Madras took part along with 22 industry leaders from the Bay Area.

Addressing the event, Prof. Bhaskar Ramamurthi, Director, IIT-Madras, highlighted key achievements of IIT Madras:

• IIT-Madras was ranked the best engineering institute in India by National Institute Ranking Framework (NIRF), two years in a row

- IIT-Madras earned the highest revenues through consultancy projects for any engineering institute
- Four out of five start-ups at the Economic Times National Start-up contest came from IIT-Madras Incubation Centre
- IIT-Madras ranks among the top research groups in the world

• The Healthcare incubator, Healthcare Technology Innovation Centre, at IIT-Madras is the premier incubator of its kind in India

Post-event, Prof. Bhaskar Ramamurthi said "While the event was a grand success and we may have exceeded the expectations of many, we also learned a lot. We need to use this as a launchpad, build on this momentum, and take this to the next level in the coming years."

Speaking during the programme, Prof. R. Nagarajan, Dean, International and Al umni Relations, IIT Madras, said, "While the Director (Prof. Bhaskar) and myself have been travelling abroad and meeting local alumni, this is the first time an event of such magnitude has been organized, enabling direct interaction with IIT-Madras faculty members who are active researchers in Industry 4.0"

"For a first-time event, this was hugely successful and will be replicated in the future in other cities abroad where our (IIT-Madras) alumni are present in significant numbers."

Prof. Krishnan Balasubramaniam, Dean, Industrial Consultancy and Sponsored Research, IIT-Madras spoke about the various collaborations with the industry undertaken by the institute.

At this meeting, the panel of IIT-Madras faculty elaborated their research in Healthcare Technology, Industrial Consultancy and Sponsored Research and the Interdisciplinary Laboratory for Data Sciences.

This was followed by six interactive panel discussions on Medicine, Artificial Intelligence and Analytics, Buildings and Infrastructure, Agriculture, Manufacturing and Energy. These panels had a blend of industry experts and Venture Capitalists offering their view of the innovative ideas and solutions that is attracting venture capital funding, while the IIT-Madras faculty members articulated the key research areas and problems they are trying to address.

Other faculty members from IIT-Madras who participated in the event include Prof. Nandan Sudarsanam, Prof. Rahul Marathe, Prof. N. Ramesh Babu, Prof. Shankar Narasimhan, Prof. Raghunathan Rengaswamy, Prof. Ashwin Mahalingam, Prof. Mahesh Panchagnula, Prof. Sankara J Subramanian, Prof. R. Krishnakumar, Prof. B. Ravindran, Prof. Mohanasankar Sivaprakasam and Prof. Sathyan Subbiah. Date: 5th July 2017 Publication: Hindustan Times Edition: Delhi Page no: 1 Journalist: NA Headline: IIT Madras has a new California connection

# IIT Madras has a new California connection

HT Correspondent

NEWDELH: It was all about making plans for the future, discussing innovations, reaching out to alumni, addressing problems and looking for opportunities that could make an impact globally. For the Indian Institute of Technology (IIT) Madras, this could only happen in sunny California.

The Foundation Series - Summer 2017 Summit at Santa Clara, California, organised by the IIT Foundation, recently brought together the IIT Madras community, faculty, start-ups and alumni to collaborate with each other and with innovators in industry, academia, and think tanks.

Discussions ranged around technologies that enable Industry 4.0; capturing data and data sources (research on sensors and other devices that help capture data), communicating this data between machines and other devices/sensors/data sources: data analytics, modelling and simulation to use this data effectively. Also analysed was the actual manufacturing/automation/making process that is the end result (3D printing, creation of new applications, tools, devices, products, robots, systems such as Internet of Things or IOTs.

In the first such event organised by the IIT Madras Foundation, 15 academics and seven startup founders from IIT Madras took part along with 22 industry leaders from the Bay Area. Date: 8th July 2017 Publication: The Times of India Edition: Chennai Page no.: 5 Journalist: NA Professor: Prof. Gaurav Raina Alumni: Tanmai Gopal Headline: IIT-M offers free app devpt course, 83K students enroll

## IIT-M offers free app devpt course, 83K students enrol

TIMES NEWS NETWORK

**Chennai:** IIT Madras is offering an opportunity to all those with basic programming skills to learn mobile Apps development for free in eight weeks from July 24.

The free online course 'Introduction to Modern Application Development (IMAD)' is a free Massive Open Online Course offered by IIt- and Hasura, a core technology start-up.

More than 83,000 students have registered for the course since its inception and have come up with more than 6,700 apps. Students who successfully complete the course get a certificate from IIT Madras.

Around 430 candidates have landed internships with start-ups. To register visit www.imad.tech.

A 20-minute course video will be available online on YouTube and can be viewed anytime. The course can be taken up from home through internet.

IIT-M Department of Electrical Engineering assistant professor Gaurav Raina and a visiting research fellow in the Statistical Laboratory at Cam-

## **ONLINE LEARNING**

bridge University along with Hasura co-founder and chief technology officer Tanmai Gopal, who is also an alumnus of IIT Madras from the Department of Computer Science and Engineering.

The course is meant for college students and working professionals. Date: 8th July 2017 **Publication: Deccan Chronicle** Edition: Chennai Page no.: 5 Journalist: NA Professor: Prof. Gaurav Raina Alumni: Tanmai Gopal

The free online

course called IMAD

### Headline: IIT-M's app designing becomes largest online tech course

URL: http://www.deccanchronicle.com/nation/current-affairs/080717/iit-madras-app-designingbecomes-largest-online-tech-course.html

## Students, IT professionals can register for eight-week online course until July 24 IIT-M's app designing becomes largest online tech course

## DC CORRESPONDENT CHENNAL JULY 7

DC CORNELSPONDENT CELEMANA, JULY 7 With over \$3,000 students and professionals enrolled to faith the country officer dby web is a start from July 24, Students and professionals can register up to the given date Development, will a start from July 24, Students and professionals can register up to the given date Development, will a start from July 24, Students and professionals can register up to the given date Development, will a start from July 24, Students and professionals can register up to the given date Development, will be as a started at heat many development, will be as a started the cause is a molern tech-nology no engineering motifies application the cause is a molern tech-nology no engineering motifies application. The students who took as abat up to fully 24. "The students who took as abat up to fully 24. "The students who took and the the registered at heat many for July 24. "The students who took and the the registered and the many for July 24. "The students who took and the the registered and the many for July 24. "The students who took and the the registered and the start from July 24. "The students who took and the start from July 24. "The students who took and the start from July 24. "The students who took and the start from July 24. "The students who took and the start from July 24. "The students who took and the start from July 24. "The students who took and the start from July 24. "The students who took and the start from July 24. "The students who took and the started to the registered and cause have of the later and the later and the will be the later of the registered to the resources. Started to be as anownes required to later ourse. Started to be the started to the start the starter and I will be

conducted twice a year In view of layeds, this course can actually served. The skills that IT profession The skills that From outside India - 1,500 Number of Internships. offered - 450 DEMOGRAPHIC DISTRIBUTION OF STUDENTS College students - 64% (more than 53,000 registrations) Working professionals - 15% (more than 15,000 registrations)

E Faculty and educators - 2% (more than 1,800 registrations)

STUDENT PROFILES 13-20 years age group - 260 20-40 years age group 58% # 40+ years age group - 6% and building the basic web application and how to on sure security for an applica-tion. The course will have

Date: 8th July 2017

Publication: The Hindu Business Line

Edition: Chennai / Delhi / Mumbai / Pune / Bangalore / Hyderabad / Kolkata / Kochi / Ahmedabad Page no.: 7

Journalist: NA

### Headline: IIT Madras offers online app development course

URL: <u>http://www.thehindubusinessline.com/news/education/iit-madras-offers-online-app-development-course/article9754019.ece</u>

## IIT Madras offers free online app development course

## OUR BUREAU

Chennai, July 7

IIT Madras will offer an online, eight-week app development course through NPTEL for free.

'Introduction to Modern Application Development', or IMAD, is a free massive open online course (MOOC) offered by IIT Madras and Hasura, a core technology start-up.

The course will include: introduction to the internet and its common network protocols, and ways to build a basic but complete web application; learn the how and why of modelling data for your application using databases; learn about performance; how to ensure security for an application; and learn how to build your own mobile application.

IMAD will start on July 24 and registration can be done at www.imad.tech, says an IIT Madras press release. Date: 8th July 2017 Publication: Dinamani Edition: Chennai Page no.: 18 Journalist: NA Headline: How to Design Mobile Apps? Free training at IIT Madras



Granman, grown 7: Grown LiGus Mini Graphisman உருவாக்குவது தறித்து இலவர ஆன்-லைன் பயிற்கியை சென்னை ஐறுடி அறிமுகம் செய்துள்ளது.

இது ஒரு திறந்தநிலை ஆன்-லைன் பயிற்றித் <u>நிட்ட பா</u> தம், இந்த 8 வார கால பயிற்சியில் யார் வேன்டுமானாலும் சேர்ந்து படிக்கலாம். படிப்பை வெற்றிலரமாக முடிப்பனர் களுக்கு துஜாடி சார்பில் சான்றிகழ் வழங்கப்படும்.

இதன் மூலம், மாவாவர்கள் மட்டுமின்றி, ஏற்கௌவே

துகள் மூலம், பான்னர்கள் படருமனற், ஏற்ககலை இந்தத் துறை சார்த்த பணிலில் இருப்பனர்களும் திறனை மேய்லஞ்திக் கொள்ள முடியும். இந்தப் பனித்தி தூற்கை 24-இல் தொடங்கப்பட உள் எது. இந்தப் பலற்றித் தட்டத்தைப் பொருந்தவரை, ஒரு 20 நியிட பாடத்திட்ட விடியோ ஆல் கைனில் இடப்பெற்றி ்க்கும். அதை எட்டோது வேஸ்டுமானாலும் மாணவர்கள் பார்க்க முடியும். விட்டில் இருந்தமாடியே பலிற்குத் இட்டத் இல் பல்தேற்க முடியும். பலிற்கில்ல் முடிலின் இறுதிலில் Calippe Sain But.

இதல் சேர விரும்புபவர்கள் www.imad.te ch என்ற இணையதனம் மூலம் ஆம்-வைகில் பதிவு செய்ய வேண்டும் என சென்னை ஐஐடி தெரிவித் துள்ளது.

Date: 8th July 2017 Publication: India Education Diary Edition: Online Journalist: NA Professor: Prof. Gaurav Raina Alumni: Tanmai Gopal Headline: Learn to design 'Mobile Apps' from IIT Madras URL: https://indiaeducationdiary.in/learn-design-mobile-apps-iit-madras/

## Learn to design 'Mobile Apps' from IIT Madras

Chennai: India produces lakhs of engineers every year who aspire to enter the tech industry. However, there's a skill gap between market needs and what students have learnt.

In this difficult job environment, with massive layoffs predicted in the near future, both working professionals and college students are looking for ways to upgrade their skill sets and learn the latest technologies.

Introduction to Modern Application Development or IMAD, is a free MOOC (Massive Open Online Courses) – offered by Indian Institute of Technology, Madras and Hasura, a core technology start-up – which aims to bridge this skill gap.

IIT Madras is offering an opportunity to all those with basic programming skills to learn App development in eight weeks. The Institute will be starting the free online course IMAD from 24th July 2017.

Through this course, one can learn to develop mobile applications, popularly known as 'Apps' which have become an integral part of our everyday lives.

More than 83,000 students have registered for the course so far, making it India's largest MOOC. They have come up with more than 6,700 apps. Around 430 candidates have landed internships with start-ups. Students who successfully complete the course get a certificate from IIT Madras.

The top students from IMAD are also eligible for product development internships at Hasura. These internships give the students an opportunity to hone their app development skills in the real world and provide much needed exposure to industry.

The course will be broken into 5 modules that will be covered over 8 weeks:

- 1. Introduction to the Internet, and its common network protocols
- 2. Build a basic but complete web application
- 3. Learn the how and why of modelling data for your application using databases
- 4. Learn about performance and how to ensure security for an application
- 5. Learn how to build your own mobile application

Registration for the course has begun and can be done by visiting www.imad.tech. The website also has resources required to learn or to brush up required programming basics.

Besides being free for everyone, anywhere, the course strives for the right balance between theory and practice by focusing on building an application quickly while also ensuring that it never breaks.

A 20-minute course video will be available online on YouTube and can be viewed anytime. One can take the course even from the comfort of their home. The course will have graded assignments, and a final test to help one remain focused through the course.

The course will be conducted by Prof. Gaurav Raina, Assistant Professor, Department of Electrical Engineering, IIT Madras, and also a visiting research fellow in the Statistical Laboratory at Cambridge University along with Mr. Tanmai Gopal, Chief Technology Officer and co-founder of Hasura. He is also an alumnus of IIT Madras from the Department of Computer Science and Engineering.

Speaking about the course, Prof. Gaurav Raina, said: "It's a great time to be working in technology, but one really needs to have relevant skills. If you are a student, a working professional, or someone looking to work in technology, the IMAD course aims to prepare you for the rapidly changing technology s ector."

This course will help in developing skills crucial to someone wanting to develop apps and get started on their own. It is aimed at equipping one with the ingredients to get started with an idea. There is also the tangible benefit of internships at some of the top tech start-ups/companies in India.

In addition, an examination (optional) will be conducted on completion of the course and on successfully clearing it, one can obtain a certification from IIT Madras.

A few statistics about the course so far

Total number of registered students – 83, 190 Number of internships offered – 430

Student Profiles:

- College Students 64% (more than 53,000 registrations)
- Working Professionals 15% (more than 15,000 registrations)
- Faculty and Educators 2% (more than 1800 registrations)

Demographic distribution of students:

- 13-20 years age group 35%
- 20-40 years age group 58%
- 40+ years age group 6%

Geographic distribution of students India – 98% of all students Outside India (20 countries) – 1500 registrations Date: 8th July 2017 Publication: Worldhab Edition: Online Journalist: Santhosh Balaji Professor: Prof. Gaurav Raina Alumni: Tanmai Gopal Headline: IIT Madras introduces online Mobile app development course URL: https://www.worldhab.com/iit-madras-introduces-online-mobile-app-development-course/

## IIT Madras introduces online Mobile app development course

Indian Institute of Technology, Madras will ready to teach that how to design Mobile Apps through an eight-week online app development course. Anybody can learn this course on free of cost through NPTEL

IIT Madras and Hasura offering this Mobile App development as free with the help of Introduction to Modern Application Development (IMAD), they provide this as a free Massive Open Online Course (MOOC), a core technology start-up.

The course curriculum will include:

Introduction to the Internet and its common network protocols.

Build a complete web application.

Learn the how and why of modelling data for the application using databases.

Learn about performance and how to ensure security for an application.

Learn how to build your own mobile application.

Every year, India produces lakhs of engineers who aspire to enter the tech industry.

IMAD was first offered in September 2016 & subsequently in Jan 2017. It has been taken by over 83000 students! Watch the feedback videos below from students who took IMAD in September and January. The Nest free online course of IMAD will begin on July 24 and registration and can be done by visiting www.imad.tech.

Date: 9th July 2017 Publication: The Hindu Edition: Online Journalist: NA Headline: IIT-M offers course on app design URL: <u>http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/iit-m-offers-course-on-app-</u> design/article19238457.ece

## IIT-M offers course on app design

The Indian Institute of Technology - Madras will offer a free eight-week course on mobile application development through the National Programme on Technology Enhanced Learning (NPTEL).

The course will commence on July 24, and aims to bridge the technology skill gap in engineers. It will be offered under Introduction to Modern Application Development or IMA D, as MOOC (Massive Open Online Course) along with Hasura, a technology start-up. Candidates with basic programming skills can enrol.

IIT-M officials said 83, 190 persons had registered for the course so far and had developed over 6, 700 apps. Around 430 candidates who had completed the course had got internships with start-ups.

Candidates who top the course are eligible for product development internships at Hasura. Online registration is available.

Date: 9th July 2017 Publication: Observer 24/7 Edition: Online Journalist: Ravi Kumar Headline: Online Mobile app development course for free by IIT Madras URL: <u>http://www.observer247.com/news/online-mobile-app-development-course-for-free-by-iit-</u> madras/1925/

## Online Mobile app development course for free by IIT Madras

Indian Institute of Technology Madras which is popularly known as IIT Madras is one among the foremost institutes of national importance in higher technological education. The institution has come up with the new idea where it can share its knowledge to the entire crowd via online course. IIT madras is now active in online courses and is ready to teach that how to design Mobile Apps through an eight-week online app development course. Day by day mobile technology is improving drastically and the one who is looking to build an application for mobile can now find a platform to learn about the Mobile app development through a course which is designed by IIT Madras and the interesting part of this course is it's for free of cost through NPTEL. No matter who are eligible, everyone who are interested in learning and knowing more about the Mobile Application Development can take this course which is an eight-week online app development course.

IIT Madras and Hasura offering this Mobile App development as free with the help of Introduction to Modern Application Development (IMAD), they provide this as a free Massive Open Online Course (MOOC), a core technology start-up. As of now the registrations are opened in its official website http://www.imad.tech/ and the course will be started from July 24th 2017. IIT madras have few advanced research centers in various disciplines of engineering and pure sciences, with nearly 100 laboratories organized in a unique pattern of functioning. A faculty of international repute, a brilliant student community, excellent technical & supporting staff and an effective administration have all contributed to the pre-eminent status of IIT Madras and it is a residential institute with nearly 460 faculty, 4500 students and 1250 administrative.

## ABOUT THE COURSE:

IMAD, India's largest MOOC, is back and it's bigger and better than before. This course will cover the basics of the Internet, building a web application, databases, performance and security, and building a mobile application. In addition, the course will have an extensive set of Practical Tutorials which will help students get a feel for real-world development. IMAD offers opportunities for internships at Hasura for the course toppers, thus helping the best students hone their application development skills in the real world. Technology companies like Amazon, Flipkart, Ola, PayTM, e-commerce companies, etcetera and also start-ups, where technology platforms are used to offer services will recognize this certification. PREREQUISITES:

Candidate need to learn the basics of computer programming. If candidate is new to programming, then the below are adequate background for this course. They can also be used to brush up your skills, if you have learnt programming a while ago then try to brush up this contents.

1) Fundamentals of JavaScript, the programming language of the Web

2) Intro to JS: Drawing & Animation

If one has certified in this course they might have more possibilities and opportunities in the outside industry to get a job where few companies that will recognize this online course

Details about CERTIFICATE:

Final score will be calculated as : 25% assignment score + 75% final exam score

25% assignment score is calculated as 25% of the sum of all 8 assignment scores.

E-certificate will be given to those who are registered and take the exam and score greater than or equal to 40% final score. Certificate will contain the details of your name, photograph and the score in the final exam with the breakup.

It will be e-verifiable at ac.in/noc with the logos of NPTEL, IIT Madras and Hasura.

The course curriculum will include:

The course content will be covered in 8 weeks. Each week of theoretical lectures will be followed by a practical, hands-on tutorial covering the concepts discussed in the previous week. These lectures will consist of programming experiments and assignments which will help the student gain a practical understanding of the ideas discussed before. The topics covered over the 8 weeks will be –

Introduction to the Internet and its common network protocols.

Build a complete web application.

Learn the how and why of modelling data for the application using databases.

Learn about performance and how to ensure security for an application.

Learn how to build your own mobile application.

Every year, India produces lakhs of engineers who aspire to enter the tech industry.

## Click here for Online Mobile app development course registration

Steps for registration: Visit the official portal http://www.imad.tech/ Click on Register Now In the new opened tab click on 'JOIN' which will be in the bottom of the page Enter the email id and fill the required details in the next page. You'll get a welcome message with few details refer the above image.

The course is completely for free of cost but for the one to be certified they have to pay the optional fee and also the exam time and date is scheduled in prior. Certification exam will be on 24 Sep 2017 in two shifts on the same day and the one who wants to take this certification test can attend for any one of the shift timings as per their convince, Shift 1 starts and ends at 9 AM-12 Noon where Shift 2 starts and ends at 2 PM-5 PM. More details will be available when the exam registration form is published. Date: 9th July 2017 Publication: Skill Outlook Edition: Online Journalist: NA Professor: Prof. Gaurav Raina Alumni: Mr. Tanmai Gopal Headline: Learn to design 'Mobile Apps' from IIT Madras at zero cost! Registrations open URL: http://skilloutlook.com/skill/learn-design-mobile-apps-iit-madras-zero-cost-registrations-open

## Learn to design 'Mobile Apps' from IIT Madras at zero cost! Registrations open

Chennai, 07 July 2017: India produces lakhs of engineers every year who aspire to enter the tech industry. However, there's a skill gap between market needs and what students have learnt. In this difficult job environment, with massive layoffs predicted in the near future, both working professionals and college students are looking for ways to upgrade their skill sets and learn the latest technologies.

Introduction to Modern Application Development or IMAD, is a free MOOC (Massive Open Online Courses) – offered by Indian Institute of Technology, Madras and Hasura, a core technology start-up – which aims to bridge this skill gap.

IIT Madras is offering an opportunity to all those with basic programming skills to learn App development in eight weeks. The Institute will be starting the free online course IMAD from 24th July 2017.

Through this course, one can learn to develop mobile applications, popularly known as 'Apps' which have become an integral part of our everyday lives.

More than 83,000 students have registered for the course so far, making it India's largest MOOC. They have come up with more than 6,700 apps. Around 430 candidates have landed internships with start-ups. Students who successfully complete the course get a certificate from IIT Madras.

The top students from IMAD are also eligible for product development internships at Hasura. These internships give the students an opportunity to hone their app development skills in the real world and provide much needed exposure to industry.

The course will be broken into 5 modules that will be covered over 8 weeks:

- Introduction to the Internet, and its common network protocols
- Build a basic but complete web application
- Learn the how and why of modelling data for your application using databases
- Learn about performance and how to ensure security for an application
- Learn how to build your own mobile application

Registration for the course has begun and can be done by visiting www.imad.tech. The website also has resources required to learn or to brush up required programming basics.

Besides being free for everyone, anywhere, the course strives for the right balance between theory and practice by focusing on building an application quickly while also ensuring that it never breaks.

A 20-minute course video will be available online on YouTube and can be viewed anytime. One can take the course even from the comfort of their home. The course will have graded assignments, and a final test to help one remain focused through the course.

The course will be conducted by Prof. Gaurav Raina, Assistant Professor, Department of Electrical Engineering, IIT Madras, and also a visiting research fellow in the Statistical Laboratory at Cambridge University along with Mr. Tanmai Gopal, Chief Technology Officer and co-founder of Hasura. He is also an alumnus of IIT Madras from the Department of Computer Science and Engineering.

Speaking about the course, Prof. Gaurav Raina, said: "It's a great time to be working in technology, but one really needs to have relevant skills. If you are a student, a working professional, or someone looking to work in technology, the IMAD course aims to prepare you for the rapidly changing technology sector."

This course will help in developing skills crucial to someone wanting to develop apps and get started on their own. It is aimed at equipping one with the ingredients to get started with an idea. There is also the tangible benefit of internships at some of the top tech start-ups/companies in India.

In addition, an examination (optional) will be conducted on completion of the course and on successfully clearing it, one can obtain a certification from IIT Madras.

Total number of registered students till now is 83,190. The total number of internships offered is 430. More than 53,000 College Students have registered for this programme, which is 64% of total registrations. Working Professionals represent 15% (more than 15,000 registrations).

Date: 10th July 2017 Publication: DT Next Edition: Chennai Page no.: 4 Journalist: NA Headline: Free app development course at IIT-M

## Free app development course at IIT-M

IT Madras is organising an eightweek, free app development online course, which is open to all. Introduction to Modern Application Development or IMAD, is a free MOOC (Massive Open Online Courses) and is offered by Indian Institute of Technology, Madras and Hasura, a core technology start-up , which aims to bridge this skill gap. The institution is offering an opportunity to all those with basic programming skills to learn app development in eight weeks, starting from July 24. More than 83,000 students have registered for the course till date. Participants have come up with more than 6,700 apps. Students who successfully complete the course will get a certificate from IIT Madras. The top students from IMAD are also eligible for product development internships at Hasura.

The course will be broken into 5 modules that will be covered over eight weeks. Registration for the course has begun and can be done by visiting www.imad.tech. Date: 10th July 2017 Publication: The Times of India- Education Times Edition: Delhi Page no.: 9 Journalist: NA **Headline: Summit** 

> SUMMIT The IIT Madras Foundation organised a summit for university alumni in Santa Clara, California, recently. Primarily, the summit was to unify the institute community in Silicon Valley and allow faculty and alumni to converse with one another, as well as with industry experts, start-up founders and other academics. Through their interactions, the institute hoped new ideas would circulate regarding solutions to impending technology issues and other opportunities related to the global tech industry. Some of the topics discussed include virtual or augmented technology, data analytics and automation.

Date: 10th July 2017 Publication: Dinamalar Edition: Chennai Page no.: 6 Journalist: NA **Headline: How to create 'Mobile Apps'** 

## 'மொபைல் ஆப்' உருவாக்க படிப்பு

சென்னை, ஜூலை 10– 'மொபைல் போன் ஆப்' உருவாக்கம் குறித்து, சென்னை – ஐ.ஐ.டி.,யின் இணையதள படிப்புக்கு, ஜூலை, 24ல் சேர்க்கை துவங்குகிறது.

மத்திய அரசின் திறந்த நிலை, ஆன்லைன் கல்வி திட் டத்தில்,பல்வேறுபடிப்புகளை, சென்னை—ஐ.ஐ.டி., நடத்து கிறது. இதில், 2016 – 17 முதல், 'மொபைல் போன் ஆப்' உருவாக்கம் குறித்த, பாடப்பிரிவு அறிமுகப்படுத்தப் பட்டது. எட்டு வாரங்கள் கொண்ட இந்த பாடப்பிரி வுக்கு, அதிக வரவேற்பு கிடைத்துள்ளது. இதுவரை, 83 ஆயிரத்து, 190 பேர் பதிவு செய்துள்ளனர். படிப்பை முடித்த, 430 பேருக்கு, 'இன்டர்ன்ஷிப்' என்ற, பயிற் சிக்கு, சென்னை – ஐ.ஐ.டி., அனுமதி அளித்துள்ளது.

இந்த ஆண்டுக்கான மாணவர் சேர்க்கை, ஜூலை, 24ல் துவங்குகிறது. விருப்பம் உள்ளோர், www.imad.tech என்ற இணையதளத்தில், தங்கள் விபரங்களை பதிவு செய்யலாம். எட்டு வார பயிற்சிக்கு பின், தேர்வு நடத் தப்பட்டு, சென்னை – ஐ.ஐ.டி., மூலம் சான்றிதழ் வழங் கப்படும் என, சென்னை – ஐ.ஐ.டி., அறிவித்துள்ளது.

Date: 10th July 2017 Publication: The Hindu-Tamil Edition: Chennai Page no.: 2 Journalist: Mr. Lisbun Kumar Headline: IIT Madras offers free training in creating mobile apps

## மொபைல் செயலிகளை உருவாக்க சென்னை ஐஐடி இலவச பயிற்

மொபைல் செயலிகளை (ஆப்) உருவாக்குவது குறித்து சென்னை ஐஐடி ஆன்லைனில் இலவசப் பயிற்சி அளிக்கிறது.

இதுதொடர்பாக சென்னை ஹலுடி வெளியிட்டுள்ள செய்திக்குறிப்பில் கூறியிருப்பதாவது:

சென்னை ஐஐடியும், ஹசுலா பவுண்டேஷனும் மொபைல் செயலி உருவாக்கும் பயிற்சியை ஆன்லைனில் இலவச மாக அளித்து வருகின்றன, இன்ட் ரொடக்ஷன் டு மாடர்ன் அப்ளி கேஷன் டெவலெப்மென்ட் (IMAD) என்ற இந்த ஆன்லைன் பயிற்சி என்பிடிஎல் திட்டத்தின் மூலமாக அளிக்கப்படுகிறது. 8 வார காலம்

🗉 சென்னை கொண்ட இந்த பயிற்சியில் சேர எவ்வித கட்டணமும் கிடையாது. பயிற்சி முற்றிலும் இலவாம்.

இந்த ஆன்லைன் பயிற்சியில் சேருவதன் மூலம், மொபைல் செய லிகளை உருவாக்குவது எப்படி என்பதை எளிதாக அறிந்துகொள்ள முடியும். சொந்தமாக மொபைல் செயலிகளை உருவாக்கும் திற இணைந்து னையும் பெற முடியும்.

பயிற்சியை வெற்றிகரமாக முடிப்பவர்களுக்கு ஐஐடி சார்பில் பயிற்சி நிறைவு சான்றிகம் வழங் கப்படும். மொபைல் செயலி துறை யில் வேலைவாய்ப்பு பெற இந்த ஆன்னவன் பயிற்சி பெரிதும் உதவி கரமாக இருக்கும், இப்பயிற்சியில் இதுவரையில் 83 ஆயிரம் பேர்

Certinet பயன்டைந்துள்ளனர். அவர்கள் மூலமாக 6,700-க்கும் புகிய மொபைல் செயலிகள் உருவாக்கப்பட்டுள்ளன.

ஆன்லைன் அடுத்த கட்ட பயிற்சி ஜூலை 24-ம் கேகி தொடங்குகிறது. இந்த இலவச மொபைல் செயலி பயிற்சியில் சேர விரும்புவோர் www.imad.tech என்ற இணையத்தில் பதிவு செய்து கொள்ள வேண்டும். புரோகிராமிங் FILLIE BULLE MALILIAN விஷயங்களை கற்றுக்கொள்ளவும். நினைவுபடுத்திக் கொள்ளவும் தேவையான தகவல்கள் இந்த இணையத்தில் இடம்பெற்றுள்ளன.

இவ்வாறு அதில் สถุกนับน டுள்ளது.

## Date: 11th July 2017 Publication: Careers 360 Edition: Online Journalist: Harshita Das

Professor: Prof. Bhaskar Ramamurthi, Prof. R. Nagarajan, Prof. Nandan Sudarsanam, Prof. Rahul Marathe, Prof. N. Ramesh Babu, Prof. Shankar Narasimhan, Prof. Raghunathan Rengaswamy, Prof. Ashwin Mahalingam, Prof. Mahesh Panchagnula, Prof. Sankara J Subramanian, Prof. R. Krishnakumar, Prof. B. Ravindran, Prof. Mohanasankar Sivaprakasam & Prof. Sathyan Subbiah

Headline: IIT Madras Foundation holds Summer 2017 Summit in California

URL: <u>http://www.engineering.careers360.com/articles/iit-madras-foundation-holds-summer-2017-</u> summit-in-california



## IIT Madras Foundation holds Summer 2017 Summit in California

IIT Madras Foundation organised the first edition of Summer 2017 Summit in California with the aim to bring together IIT Madras community, faculty, start-ups and alumni to collaborate with each other and with innovators in industry, academia, and think tanks to address problems and opportunities that could be global in nature. As many as 15 academics and seven start-up founders from IIT Madras took part along with 22 industry leaders from the Bay Area.

Some of the topics that were discussed during this summit include: Technologies that enable Industry 4.0 Capturing Data and Data Sources, Communicating data between machines and other devices/sensors/data sources, Data Analytics,

Modelling and Simulation to use this data effectively and the actual Manufacturing/Automation/Making process that is the end result.

At this meeting, the panel of IIT-Madras faculty elaborated their research in Healthcare Technology, Industrial Consultancy and Sponsored Research and the Interdisciplinary Laboratory for Data Sciences. There were six interactive panel discussions on Medicine, Artificial Intelligence and Analytics, Buildings and Infrastructure, Agriculture, Manufacturing and Energy. These panels had a blend of industry experts and venture capitalists offering their views of the innovative ideas and solutions that is attracting venture capital funding, while the IIT-Madras faculty members articulated the key research areas and problems they are trying to address.

Prof. Bhaskar Ramamurthi, Director, IIT-Madras at the event highlighted key achievements of IIT Madras. Post-event Prof. Ramamurthi said, "While the event was a grand success and we may have exceeded the expectations of many, we also learned a lot. We need to use this as a launchpad, build on this momentum and take this to the next level in the coming years." Speaking during the programme, Prof. R. Nagarajan, Dean, International and Alumni Relations, IIT Madras, said, "While the Director (Prof. Bhaskar) and myself have been travelling abroad and meeting local alumni, this is the first time an event of such magnitude has been organized, enabling direct interaction with IIT-Madras faculty members who are active researchers in Industry 4.0"

He added, "For a first-time event, this was hugely successful and will be replicated in the future in other cities abroad where our (IIT-Madras) alumni are present in significant numbers."

Other faculty members from IIT-Madras who participated in the event were Prof. Nandan Sudarsanam, Prof. Rahul Marathe, Prof. N. Ramesh Babu, Prof. Shankar Narasimhan, Prof. Raghunathan Rengaswamy, Prof. Ashwin Mahalingam, Prof. Mahesh Panchagnula, Prof. Sankara J Subramanian, Prof. R. Krishnakumar, Prof. B. Ravindran, Prof. Mohanasankar Sivaprakasam and Prof. Sathyan Subbiah. Date: 11th July 2017 Publication: Chennai Online Edition: Online Journalist: NA

Professor: Prof. Bhaskar Ramamurthi, Prof. R. Nagarajan, Prof. Krishnan Balasubramaniam, Prof. Nandan Sudarsanam, Prof. Rahul Marathe, Prof. N. Ramesh Babu, Prof. Shankar Narasimhan, Prof. Raghunathan Rengaswamy, Prof. Ashwin Mahalingam, Prof. Mahesh Panchagnula, Prof. Sankara J Subramanian, Prof. R. Krishnakumar, Prof. B. Ravindran, Prof. Mohanasankar Sivaprakasam & Prof. Sathyan Subbiah

Headline: IIT Madras Foundation holds Summer 2017 Summit in California URL: https://chennaionline.com/article/iit-madras-foundation-holds-summer-2017-summit-california

## IIT Madras Foundation holds Summer 2017 Summit in California

Chennai: IIT Madras Foundation organized the Foundation Series – Summer 2017 Summit at Santa Clara, California, recently. The purpose of the summit was to bring together IIT Madras community, faculty, start-ups and alumni to collaborate with each other and with innovators in industry, academia, and think tanks to address problems and opportunities that could be global in nature.

Some of the topics that were discussed during this summit include

 $\cdot$  Technologies that enable Industry 4.0 (these could be virtual/augmented reality technologies for instance),

· Capturing Data and Data Sources (research on sensors and other devices that help capture data),

· Communicating this data between machines and other devices/sensors/data sources,

· Data Analytics, Modelling and Simulation to use this data effectively, and

• The actual Manufacturing/Automation/Making process that is the end result (this could be 3D printing, creation of new applications, tools, devices, products, robots, systems such as IOTs (Internet of Things).

This was first such event organized by IIT Madras Foundation. Fifteen academics and seven start-up founders from IIT Madras took part along with 22 industry leaders from the Bay Area.

Addressing the event, Prof. Bhaskar Ramamurthi, Director, IIT-Madras, highlighted key achievements of IIT Madras:

• IIT-Madras was ranked the best engineering institute in India by National Institute Ranking Framework (NIRF), two years in a row

- IIT-Madras earned the highest revenues through consultancy projects for any engineering institute
- Four out of five start-ups at the Economic Times National Start-up contest came from IIT-Madras Incubation Centre
- IIT-Madras ranks among the top research groups in the world

• The Healthcare incubator, Healthcare Technology Innovation Centre, at IIT-Madras is the premier incubator of its kind in India

Post-event, Prof. Bhaskar Ramamurthi said "While the event was a grand success and we may have exceeded the expectations of many, we also learned a lot. We need to use this as a launchpad, build on this momentum, and take this to the next level in the coming years."

Speaking during the programme, Prof. R. Nagarajan, Dean, International and Alumni Relations, IIT Madras, said, "While the Director (Prof. Bhaskar) and myself have been travelling abroad and meeting local alumni, this is the first time an event of such magnitude has been organized, enabling direct interaction with IIT-Madras faculty members who are active researchers in Industry 4.0"

"For a first-time event, this was hugely successful and will be replicated in the future in other cities abroad where our (IIT-Madras) alumni are present in significant numbers."

Prof. Krishnan Balasubramaniam, Dean, Industrial Consultancy and Sponsored Research, IIT-Madras spoke about the various collaborations with the industry undertaken by the institute.

At this meeting, the panel of IIT-Madras faculty elaborated their research in Healthcare Technology, Industrial Consultancy and Sponsored Research and the Interdisciplinary Laboratory for Data Sciences.

This was followed by six interactive panel discussions on Medicine, Artificial Intelligence and Analytics, Buildings and Infrastructure, Agriculture, Manufacturing and Energy. These panels had a blend of industry experts and Venture Capitalists offering their view of the innovative ideas and solutions that is attracting venture capital funding, while the IIT-Madras faculty members articulated the key research areas and problems they are trying to address.

Other faculty members from IIT-Madras who participated in the event include Prof. Nandan Sudarsanam, Prof. Rahul Marathe, Prof. N. Ramesh Babu, Prof. Shankar Narasimhan, Prof. Raghunathan Rengaswamy, Prof. Ashwin Mahalingam, Prof. Mahesh Panchagnula, Prof. Sankara J Subramanian, Prof. R. Krishnakumar, Prof. B. Ravindran, Prof. Mohanasankar Sivap rakasam and Prof. Sathyan Subbiah. Date: 11th July 2017 Publication: Dina Vanigam Edition: Chennai Page no.: 5 Journalist: NA

Headline: IIT Madras offers free training in creating mobile apps



Date: 15th July 2017 Publication: The Hindu Edition: Hyderabad / Kochi / Bangalore / Chennai Page no: 6 Journalist: Lavanya Narayanan

## Headline: Out of the classroom

URL: http://www.thehindu.com/sci-tech/technology/internet/imad-course-hasura-and-iit-m/article1927

# Out of the classroom

IMAD brings IIT Madras' app development course to people around the globe

### II LAVANYA NARAYANAN

IIT Madras has a reputation that has stood the test of time for over 50 years. Admission remains covered and often unattainable. But now, thanks to the digital age, the institutes' bank of Massive Open Online Courses (MOOC) give the public a glimpse of what they have to offer.

"We're trying to bring down the entry barriers," says Rajoshi Ghosh, cofounder of technological platform Hasura, which partners with IIT Madras for the venture. With their free course, introduction to Modern Application Development (IMAD), Ithe duo is sharing their skill sets with participants across the globe.

The course is a traditional MOOC, one of the many that make up IIT Madras' online database. And yet its reach has been exceptional. Launched last September, the course has had over 80,000 registrations and the numbers are only expected to grow.

"It's truly the first-of-its kind. Participants build their own apps from scratch, which is quite rare to find in a short online course such as this one," Ghosh tells us. Using weekly lectures and an active online discussion forum that links participants from across the world (to learn from each other), it teaches students the fundamentals of application development in both a theoretical and practical setting. The eightweek course also covers aspects of databases, performance and security.

Ghosh partially attributes the response to the course to the recent slump in the IT sector, both locally and abroad.



Get with it in today's IT industry, it is essential to be versatile .corrr invests

"The IT field requires people to be dynamic and multifunctional as workers. You need to be a polyglot of sorts, comfortable switching from one framework to another," she adds. To be continuously relevant, one has to have a versatile repertoire. It's truly the first-of-its kind. Participants build their own apps from scratch, which is quite rare to find in a short online course such as this one

With participants ranging from ages 13 to 74, college students, IT professionals, faculty educators, and even stay-athome mothers are joining the database of registrants, pushing enrolment to over 1,00,000 for the course's upcoming version.

Not everyone has their eye on the IIT stamp, though. As the course comes to completion, a generic certification exam is offered. Those who desire the IIT degree will need to pay \$1,000 to sit for the exam offered by the institute it self.

The toppers get to do a product development fellowship with Hasura, where they build products of their choice via a remote mentorship programme that takes them through the entire product development lifecycle. Ghosh says,

"We currently have 400 interns working with us to create some amazing applications. We want to build a community of people, and equip them with this knowledge, regardless of profession or background. After all, they're the future developers of the world."

The third edition of the course begins on July 24. Sign up at onlinecourses.nptel.ac.in.

Date: 17th July 2017 Publication: Deccan Chronicle- Chennai Chronicle Edition: Chennai Page no.: 21 Journalist: Priyanka Shankar Professor: Prof. Gaurav Raina Alumni/student: Tanmai (alumnus) & Ammu (student) Headline: Creating apps made easy URL: http://www.deccanchronicle.com/technology/in-other-news/170717/creating-apps-made-

easy.html

CREATING APPS MADE EAS Building an app is not so tough anymore with Hasura - a free course that simplifies app creation PHIYANKA SHANKAR DECCAS CHIRDNELL unchold of whice Rap the gh of Hussian, Rajorda forsity of the appli-tadicals and iT pro-flut we also turse and affects. Tentral anti Resolute G Building an app is not a daunting task obdie or hybrid " shares Reports salaret about helps the in We want to build a community that the excilement of creating something new and is not

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Date: 20th July 2017 Publication: Edex Live Edition: Online Journalist: NA Professor: Prof. Sandipan Bandyopadhyay Headline: IIT-Madras launches second phase of 'Carbon Zero Challenge' to identify innovative solutions to India's energy problems URL: <u>http://www.edexlive.com/live-story/2017/jul/19/iit-madras-launches-second-phase-of-carbon-</u> zero-challenge-to-identify-innovative-solutions-to-indi-855.html

## IIT-Madras launches second phase of 'Carbon Zero Challenge' to identify innovative solutions to India's energy problems

The second phase of the 'Carbon Zero Challenge' was recently launched at Indian Institute of Technology Madras. Personalities from academia, venture capitalists and entrepreneurs took part in the event.

The Carbon Zero Challenge is a pioneering initiative by the IIT-Madras and Industrial Waste Management Association (IWMA), in collaboration with the US Consulate General Chennai, Polaris - A Virtusa Company, Shaastra 2018 and Energy Alternatives India (EAI), to identify innovative and indigenous solutions to India's unique energy problems.

The main objective of this initiative is to recognise and nurture original solutions and enable them to reach a stage of market scalability. Through their efforts, the partners aspire to foster a sustainable ecosystem wherein renewable energy and clean technology ideas can emerge and develop into long-term solutions.

The name 'Carbon Zero' signifies our collective humanitarian goal of reducing dependence on Carbonbased fossil fuels and minimising Greenhouse Gas Emissions. This attempt to seek out innovative lowcarbon energy solutions is a small step towards achieving this grand objective.

The challenge has invited students and early stage entrepreneurs from Tamil Nadu, Kerala, Karnataka, Puducherry and the Andaman and Nicobar Islands, to isolate problems in five thematic areas and develop solutions to the same. The areas chosen are Agriculture, Urban Areas/Cities, Transportation, Industrial Processes and Water and Waste Management.

"A successful prototype is developed after multiple prototyping processes and the former can be achieved if the conflict between engineering and design parameters are addressed." Prof Sandipan Bandyopadhyay, Assistant Professor, IIT Madras

In Phase One, over 530 teams had submitted a proof-of-concept solution in the form of a video or presentation along with a 2-page abstract, out of which 57 belonged to agriculture, 149 to industries, 73 to transportation, 125 to urban areas/cities and 126 to water and waste management.

The top 26 teams were shortlisted for the Phase II during which they will be receiving up to Rs 5 lakhs each for building prototypes. They will also be paired with mentors from India and the US, who will guide

and motivate them in building a prototype of their idea over a period of 6 months and will also help them prepare a business model. The challenge will culminate in a 'Demo Day', which will see attendance by experts from industry and academia. The best solutions will receive prizes in cash and kind, and all the teams will be provided with opportunities to interact with investors and researchers to further develop their ideas.

Date: 20th July 2017 Publication: The Times of India Edition: Online Journalist: Ranjani Ayyar Headline: Learn app development with this free IMAD course URL: <u>http://timesofindia.indiatimes.com/home/education/news/learn-app-development-with-this-free-imad-course/articleshow/59668124.cms</u>

## Learn app development with this free IMAD course

CHENNAI: Students across the country can learn app development through a free course offered jointly by Hasura and IIT-Madras. Post the eight-week course, top students get a chance to do internships at Hasura.

India produces lakhs of engineers every year, who aspire to enter the tech industry. However, there's a skill gap between market needs and what students have learnt.

Industry experts predict that automation will cause significant job cuts in the IT sector. However, the demand for mid-to-high skilled jobs in the IT sector will grow.

In this difficult job environment, with massive layoffs predicted in the near future, both working professionals and college students are looking for ways to upgrade their skill sets and learn the latest technologies.

Introduction to Modern Application Development or IMAD, is a free MOOC offered by Hasura and IIT-Madras, which aims at bridging this skill gap.

More than 83,000 students have registered for the course so far, making it India's largest technology MOOC.

Students who successfully complete the course get a certificate from IIT-Madras. As many as 430 students have got internships at tech startups after completing the course.

The next course begins on July 24.

Date: 20th July 2017 Publication: The Economic Times Edition: Delhi/Mumbai/Kolkata/Hyderabad/Chennai Page no.: 6 Journalist: NA **Headline: Rolling out the Red Carpet** 



Date: 21st July 2017 Publication: Web 123 Edition: Online Journalist: NA Headline: IIT-Madras launches 2nd phase of 'Carbon Zero Challenge' URL: https://news.webindia123.com/news/articles/india/20170720/3150709.html

## IIT-Madras launches 2nd phase of 'Carbon Zero Challenge'

The second phase of the 'Carbon Zero Challenge' was launched at the IIT-Madras here today. Personalities from academia, venture capitalists and entrepreneurs took part in the 'Carbon Zero Challenge', which was a pioneering initiative by IIT-M and Industrial Waste Management Association (IWMA), in collaboration with the US Consulate General in Chennai, Polaris, Shaastra-2018 and Energy Alternatives India (EAI), to identify innovative and indigenous solutions to India's unique energy problems. The main objective of this initiative was to recognize and nurture original solutions and enable them to reach a stage of market scalability, a release from IIT-M said. "Through their efforts, the partners aspire to foster a sustainable ecosystem wherein renewable energy and clean technology ideas can emerge and develop into long-term solutions", it added. "The name 'Carbon Zero' signifies our collective humanitarian goal of reducing dependence on Carbon-based fossil fuels, and minimizing Greenhouse Gas Emissions", the release said, adding, this attempt to seek out innovative low-carbon energy solutions was a small step towards achieving this grand objective. MORE UNI GV 1307

Date: 21st July 2017 Publication: UNI Edition: Online Journalist: NA Headline: IIT-Madras launches 2nd phase of 'Carbon Zero Challenge' URL: http://www.uniindia.com/iitmadraslaunches2ndphaseofcarbonzerochallenge/states/news/935592. html#9TOKeDtFPbdMC2ym.99

## IIT-Madras launches 2nd phase of 'Carbon Zero Challenge'

The second phase of the 'Carbon Zero Challenge' was launched at the IIT-Madras here today. Personalities from academia, venture capitalists and entrepreneurs took part in the 'Carbon Zero Challenge', which was a pioneering initiative by IIT-M and Industrial Waste Management Association (IWMA), in collaboration with the US Consulate General in Chennai, Polaris, Shaastra-2018 and Energy Alternatives India (EAI), to identify innovative and indigenous solutions to India's unique energy problems. The main objective of this initiative was to recognize and nurture original solutions and enable them to reach a stage of market scalability, a release from IIT-M said. "Through their efforts, the partners aspire to foster a sustainable ecosystem wherein renewable energy and clean technology ideas can emerge and develop into long-term solutions", it added. "The name 'Carbon Zero' signifies our collective humanitarian goal of reducing dependence on Carbon-based fossil fuels, and minimizing Greenhouse Gas Emissions", the release said, adding, this attempt to seek out innovative low-carbon energy solutions was a small step towards achieving this grand objective. MORE UNI GV 1307

Date: 22nd July 2017 Publication: India Education Diary Edition: Online Journalist: NA Professor: Prof. Sandipan Bandyopadhyay, Prof. R. Nagarajan, Prof. Indumathi M Nambi & Mr K Sivaraman Alumni: Mr. Swostik Dash & Mr. Pulkit Agarwal Headline: IIT-Madras Launches Second Phase of 'Carbon Zero Challenge' URL: http://indiaeducationdiary.in/iit-madras-launches-second-phase-carbon-zero-challenge/

## IIT-Madras Launches Second Phase of 'Carbon Zero Challenge'

Chennai: The Second Phase of the 'Carbon Zero Challenge' was launched at Indian Institute of Technology Madras on Wednesday (19th July 2017). Personalities from academia, venture capitalists and entrepreneurs took part in the event.

The Carbon Zero Challenge is a pioneering initiative by the IIT-Madras and Industrial Waste Management Association (IWMA), in collaboration with the U.S. Consulate General Chennai, Polaris – A Virtusa Company, Shaastra 2018 and Energy Alternatives India (EAI), to identify innovative and indigenous solutions to India's unique energy problems.

The main objective of this initiative is to recognize and nurture original solutions and enable them to reach a stage of market scalability. Through their efforts, the partners aspire to foster a sustainable ecosystem wherein renewable energy and clean technology ideas can emerge and develop into long-term solutions. The name 'Carbon Zero' signifies our collective humanitarian goal of reducing dependence on Carbonbased fossil fuels, and minimizing Greenhouse Gas Emissions. This attempt to seek out innovative lowcarbon energy solutions is a small step towards achieving this grand objective.

The challenge has invited students and early stage entrepreneurs from Tamil Nadu, Kerala, Karnataka, Puducherry and the Andaman and Nicobar Islands, to isolate problems in five thematic areas and develop solutions to the same. The areas chosen are Agriculture, Urban Areas/Cities, Transportation, Industrial Processes and Water and Waste Management.

In Phase One, over 530 teams had submitted a proof-of-concept solution in the form of a video or presentation along with a 2-page abstract, out of which 57 belonged to Agriculture, 149 to Industries, 73 to Transportation, 125 to Urban Areas/Cities and 126 to Water & Waste Management.

The top 26 teams were shortlisted for the Phase II during which they will be receiving upto Rs. 5 lakhs each for building prototypes. They will also be paired with mentors from India and the US, who will guide and motivate them in building a prototype of their idea over a period of 6 months and will also help them prepare a business model. The challenge will culminate in a 'Demo Day', which will see attendance by experts from industry and academia. The best solutions will receive prizes in cash and kind, and all the teams will be provided with opportunities to interact with investors and researchers to further develop their ideas. For more info, visit http://www.czeroc.com

Prof. Sandipan Bandyopadhyay, Assistant Professor, Department of Engineering Design, IIT Madras, delivered a lecture on the topic "Paper to Prototype". He familiarised the audience with prototyping

process through examples of prototypes and products which he has developed during past years in IIT Madras. "A successful prototype is developed after multiple prototyping processes and the former can be achieved if the conflict between engineering and design parameters are addressed", he added.

Following his talk, there was an interaction with two IITM alumni, Mr. Swostik Dash who is project officer in R2D2 Laboratory, IIT Madras which involves in research of human movement and prosthetic devices and Mr. Pulkit Agarwal who is a part of start-up called 'Planys Technologies' which provides submersible robotic inspection and survey solutions using Remotely Operated Vehicles.

Following that, was the workshop on "Idea 2 Market: An Entrepreneur's Toolbox" by Dr. Hiran Vedam from nH2. She gave many insights about entrepreneurship to the participants and idea to convert a prototype into a business model which was followed by a Q&A session.

The participants explained about their ideas through "Elevators Pitch" to the venture capitalists and entrepreneurs in a session organized to create funding opportunities. They presented posters to the potential investors. Dr. Murali Padmanabhan from Virtusa Corporation and Mr. Mukundan Narasimhan, CEO PlaySolar Systems also spoke during the occasion.

Prof. R. Nagarajan, Dean, International and Alumni Relations, IIT Madras and Coordinators of CZC Prof. Indumathi M Nambi, Associate Professor, Department of Civil Engineering, IIT Madras, and Mr K Sivaraman from IWMA also addressed the audience. Date: 22nd July 2017 Publication: HT Syndication Edition: Online Journalist: NA Headline: 'IIT-Madras Launches Second Phase of 'Carbon Zero Challenge' URL: <u>http://www.htsyndication.com/htsportal/india-education-diary/article/-iit-madras-launches-second-phase-of--carbon-zero-challenge-/21924228</u>

## 'IIT-Madras Launches Second Phase of 'Carbon Zero Challenge'

Chennai, July 21 -- The Second Phase of the 'Carbon Zero Challenge' was launched at Indian Institute of Technology Madras on Wednesday (19th July 2017). Personalities from academia, venture capitalists and entrepreneurs took part in the event.

The Carbon Zero Challenge is a pioneering initiative by the IIT-Madras and Industrial Waste Management Association (IWMA), in collaboration with the U.S. Consulate General Chennai, Polaris - A Virtusa Company, Shaastra 2018 and Energy Alternatives India (EAI), to identify innovative and indigenous solutions to India's unique energy problems.

The main objective of this initiative is to recognize and nurture original solutions and enable them to reach a stage of market scalability. Through their effor...

Date: 22nd July 2017 Publication: Your Story Edition: Online Journalist: Dpiti Nair Alumni: Daniel Raj Headline: IIT-M incubated Detect Technologies' drone-as-a-service saves heavy industries from huge losses URL: https://yourstory.com/2017/07/iit-m-detect-technologies-drone-as-a-service/

## IIT-M incubated Detect Technologies' drone-as-a-service saves heavy industries from huge losses

This bunch of engineers, who have just graduated from IIT Madras, are setting their sights on a niche sector. Twenty-two-year-old Daniel Raj, who is the Founder and CEO of Detect Technologies, along with a 40-member team of hardcore techies, is building an innovative solution for heavy industries, especially the oil and natural gas industry.

Their artificial intelligence (AI) and machine learning startup is a drone -as-a-service company focussed on helping manufacturing industries ensure asset integrity and proactive monitoring, thereby ensuring that they cut huge losses of around Rs 6-9 crore (daily) by way of shutdowns.

Incubated at IIT Madras, the team spent five years in research and development to come out with two market-ready products as of now. The first is a sensor (with a patent technology) to detect any leakage in the oil and gas pipeline, while the other is an industrial drone (with proprietary algorithms) that inspects and assesses large volume assets like boilers and stacks. They also have the ability to generate a report on the same day.

The team had raised a seed round from IIT Madras and are in the process of closing a pre-Series A round soon.

"We are already making revenues with our drone technology," says Daniel. Narrating his experience of pitching to potential clients, he says that has been one of their biggest challenges. "I had to grow a beard so that I could appear older," he says smiling.

However, the team has successfully signed a deal with Reliance Industries following which it has become easier to approach others in the industry.

Daniel says that getting access to mentors in the field is also difficult, but the fact that they were incubated at Axilor helped them get connected to "some good people in this field."

Besides the Indian market, the team is aiming to go international. "More than India, for us the bigger market is in the Middle East and Southeast Asia," says Daniel.

Considering they have just graduated, Daniel says, "We are slowly realising the realities of life as an entrepreneur. The real world is far from a life in a lab."

Nonetheless, the young entrepreneur is raring to go and believes that with the enthusiasm and high energy of the team they can ride high.

Watch Daniel talk about his product and the problem they are solving with their patented technologies in the video below.



focused on helping manufacturing industries ensure asset integrity.

Date: 25th July 2017 Publication: The Hindu Edition: Online Journalist: NA Headline: IMAD course to begin today URL: <u>http://www.thehindu.com/todays-paper/tp-national/tp-kerala/imad-course-to-begin-</u> today/article19340261.ece

## IMAD course to begin today

The third session of Introduction to Modern Application Development (IMAD), a massive open online course affiliated to the Indian Institute of Technology, will begin on Monday.

The free course helps working professionals and students catch up with the latest in technology development.

Developed by Hasura, a core-tech start-up, in partnership with IIT Madras, the eight-week course blends theory and practice to convey the principles of building web applications.

Features

The course features video lectures, an app development portal for students to build web applications as they learn concepts, and a discussion forum for peer-to-peer learning.

Applicants for the next intake can register athttps://onlinecourses.nptel.ac.in/noc17\_cs40/preview

Details are available on http://www.imad.tech

Date: 29th July 2017 Publication: Dinamani Edition: Chennai Page no.: 2 Journalist: N/A **Headline: IIT to train women entrepreneurs** URL: <u>https://goo.gl/uaaiVj</u>

## பெண் தொழில்முனைவோருக்கு ஐஐடி சார்பில் பயிற்சி சென்னை, ஜூலை 28: தமிழகத்தில் உள்ள 300 சிறு, குறு பெண் தொழில்முனை வெள்ளிக்கிழமை அறிமுகம் செய்தது. இதில் தமிழில் பயிற்சி

300 சிறு, குறு பெண் தொழில்முனை வோருக்குப் பயிற்சியளிக்கும் வகையில் புதிய திட்டத்தை சென்னை ஐஐடி அறி முகம் செய்துள்ளது.

இதுகுறித்து சென்னை ஐஐடி வெளி யிட்டசெய்தி:

சென்னை ஐஐடி 'ஹேண்ட்-இன்-ஹேண்ட் இந்தியா' தொண்டு நிறுவனம் மற்றும் சி.ஏ.எம்.எஸ். குழுமம் ஆகியவற் றுடன் இணைந்து தமிழகத்தில் உள்ள 300 சிறு, குறு பெண் தொழில்முனை வோருக்கு பயிற்சி அளிக்கும் திட்டத்தை வெள்ளிக்கிழமை அறிமுகம் செய்தது. இதில் தமிழில் பயிற்சி அளிக்கப்படுகிறது. ஆண்டுக்கு 100 பேர் வீதம் மூன்று ஆண்டுகளுக்கு இந்தப் பயிற்சி நடத்தப்பட உள்ளது. ஒவ்வொரு பயிற்சியும் ஒரு வாரம் பயிற்றுவிக்கப்ப டும், பயிற்சியில் பங்குபெற்றவர்கள் தங் கள் தொழிலுக்கான திட்டத்தை உரு வாக்குவதற்கு வழிகாட்டிகள் உதவி செய் வர். அதன் பின் பங்கேற்பாளர்கள் தங் கள் தொழில்களை விரிவாக்கம் செய்து வளர்ச்சி காண்பதற்கும், நிதி உதவிகள் பெறுவதற்கும் வழிகாட்டப்படும். Date: 29th July 2017 Publication: The Hindu Edition: Chennai Page no.: 3 Journalist: NA

## Headline: IIT-M to train women entrepreneurs

URL: <u>http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/iit-m-to-train-women-entrepreneurs/article19382326.ece</u>

# IIT-M to train women entrepreneurs

SPECIAL CORRESPONDENT

The Indian Institute of Technology-Madras, along with CAMS Group, will train 300 micro and marginal women entrepreneurs in the State.

The initiative follows the success of IIT-M's pilot project last year, in which about half the participants who completed the programme received bank loans to launch their own ventures.

The current programme, to be conducted in Tamil, is a three-year project that will be funded by CAMS Group. Hand-in-Hand India, a charitable trust, will identify the beneficiaries and IIT-M will finalise the list. The training would be conducted in the entrepreneurs' localities.

The entrepreteurs would be trained in different areas of business and management to improve their growth rate and profitability, according to a release.

Interested participants may contact thillair@itm.ac.in for further details. Date: 29th July 2017 Publication: The Hans India Edition: Hyderabad Page no.: 14 Journalist: NA Faculty: Prof R. Nagarajan & Prof. Thillai Rajan Headline: IIT-M to train women entrepreneurs URL: <u>http://www.thehansindia.com/posts/index/Hans/2017-07-28/IIT-M-to-train-women-</u> entrepreneurs-/315327



L to R. G Manikandan, CAMS Pet Lid., Prof. Thillai Rajan, Dept of Management Stadkes, ITT Moderns M.Subromanion, CEO, Development Office, ITT Moderns & Prof. R. Nagarajan, Dean, 1&AR, ITT Madros

## IIT-M to train women entrepreneurs

#### OUR BUREAU

Hyderabad: Indian Institute of Technology Madras launched a new initiative to train 300 micro and marginal women entrepreneurs in Tamil Nadu. The Institute has joined hands with CAMS Group, which is providing a funding support of about Rs 46 Judh, and Hand-in-Hand India, a charitable trust, for this three-year project.

The program aims to provide high impact training to the women entrepreneurs by providing key inputs in different areas of business and management. This will help participants to improve their growth rates and profitability.

Speaking during the launch of the initiative, Prof Nagarajan, Dean, Industry and Alumni Relations, IIT-Madras, said, "ITT Madras has established itself as a leader among academic institutions in promoting entrepreneurship among its faculty and students, with alumni heing a solid pillar of support. In particular, social entrepreneurship is a key imporative of the Institute, and corporate support in the form of CSR has come as a tremendous boost in this respect."

Speaking about this program, Prof. Thillai Rajan, Department of Management Studies, IIT-Madras, and one of the Program Directors, said, "This initiative is a result of the spectacular success of an earlier pilot program done in January 2016. About half of the participants in that pilot program successfully obtained bank leans within six months of completing the program." Date: 29th July 2017 Publication: India Education Diary Edition: Online Journalist: N/A Faculty: Prof R. Nagarajan & Prof. Thillai Rajan Headline: IIT Madras to train 300 Micro and Marginal Women Entrepreneurs in Tamil Nadu URL: <u>https://indiaeducationdiary.in/iit-madras-train-300-micro-marginal-women-entrepreneurs-tamil-nadu/</u>

## IIT Madras to train 300 Micro and Marginal Women Entrepreneurs in Tamil Nadu

Chennai: Indian Institute of Technology Madras launched a new initiative on Friday, 28th July 2017, to train 300 micro and marginal women entrepreneurs in Tamil Nadu. The Institute has joined hands with CAMS Group, which is providing a funding support of about Rs. 45 lakh, and Hand-in-Hand India, a charitable trust, for this three-year project.

The program aims to provide high impact training to the women entrepreneurs by providing key inputs in different areas of business and management. This will help participants to improve their growth rates and profitability.

In order to be effective and meet the needs of the participants, the program will be conducted in Tamil language. The beneficiaries will be identified by Hand-in-Hand India and finalized by IIT Madras and the training will be conducted in entrepreneurs' localities.

Speaking during the launch of the initiative, Prof. Nagarajan, Dean, Industry and Alumni Relations, IIT-Madras, said, "IIT Madras has established itself as a leader among academic institutions in promoting entrepreneurship among its faculty and students, with alumni being a solid pillar of support. In particular, social entrepreneurship is a key imperative of the Institute, and corporate support in the form of CSR has come as a tremendous boost in this respect."

Speaking about this program, Prof. Thillai Rajan, Department of Management Studies, IIT-Madras, and one of the Program Directors, said, "This initiative is a result of the spectacular success of an earlier pilot program done in January 2016. About half of the participants in that pilot program successfully obtained bank loans within six months of completing the program."

Participants began to organize and run their business in a more systematic manner after the program, which provided comfort to banks in their lending decisions.

The program is specifically designed for the needs for women entrepreneurs and will provide insights on various areas such as finance, marketing, information technology, banking, and soft skills. The program would be delivered by faculty members from the Department of Management Studies, IIT Madras and experienced practitioners from the industry.

Each year 100 people would be trained for three years. Each program would be for a week, which would be followed by a reflective session after six months to understand how the program has impacted the participants.

Speaking about this project, N K Prasad, President and Chief Executive officer, CAMS, said, "CAMS as part of its CSR activities has been carrying out various projects in the fields of education, vocational training, healthcare and other social Welfare activities. In the current financial year, CAMS is delighted to be associated with IIT-Madras in supporting the training focused at small scale Entrepreneurs. We are sure that the proposed training which include workshops, mentoring and monitoring sessions to be carried out by eminent faculties associated with IIT Madras would go a long way in the entrepreneurs scaling up their operations."

A key feature of the program is the mentoring support to the participants after the completion of the program. The mentors would guide the participants in developing a business plan, and Hand in hand would facilitate in the process of obtaining financial support for entrepreneurs developing the best business plans.

Prof. Thillai Rajan, said, "A major thrust of this program is to enable the participants assume the mind-set of an entrepreneur rather than the mind-set of being self-employed. An important problem faced by a majority of micro and marginal entrepreneurs who start and run micro enterprises is the lack of formal training in running a business. The problem is even more acute for women entrepreneurs. While most of them have some degree of domain experience in the areas in which they operate, business skills and knowledge are mostly self-learnt. Through this program, it is our desire to make modern management insights and knowledge easily accessible to these marginal entrepreneurs." Dr. Kalpana Sankar, Chairperson and Managing Trustee, Hand in Hand, said, "The training will help SHG women to manage the enterprises with profit and grow the business." Dr. Jeyaseelan, Group CEO, Hand in Hand added that, "This training will enable the SHG women to move their enterprises from informal to formal sector."

The program directors, Prof. Thillai Rajan, Prof. G. Arun Kumar, and Prof. Saji Mathew, faculty members from Department of Management Studies, IIT Madras, took part in the launch function held at IIT-Madras on Friday, 28th July 2017, along with G. Manikandan, Company Secretary.

Experienced and social minded entrepreneurs have been invited to volunteer for being honorary mentors to the participants in the program. Those who are interested to participate in this satisfying role can contact Prof. Thillai Rajan at <u>thillair@iitm.ac.in</u>.

Date: 31st July 2017 Publication: Careers 360 Edition: Online Journalist: Harshita Das Professor: Prof Nagarajan & Prof. Thillai Rajan Headline: IIT Madras to train 300 women entrepreneurs in Tamil Nadu URL: <u>https://engineering.careers360.com/articles/iit-madras-train-300-women-entrepreneurs-in-tamil-nadu</u>

## IIT Madras to train 300 women entrepreneurs in Tamil Nadu



Indian Institute of Technology Madras launched a new initiative on July 28, 2017 to train 300 micro and marginal women entrepreneurs in Tamil Nadu. The Institute has joined hands with CAMS Group, which is providing funds of about Rs. 45 lakh, and Hand In Hand India, a charitable trust, for this three-year project.

The programme aims to provide high impact training to women entrepreneurs by providing key inputs in different areas of business and management. This will help participants to improve their growth rates and profitability.

In order to be effective and meet the needs of the participants,

the programme will be conducted in Tamil language. The beneficiaries will be identified by Hand in Hand India and finalised by IIT Madras and the training will be conducted in entrepreneurs' localities. The mentors would guide the participants in developing a business plan, and Hand In Hand would facilitate in the process of obtaining financial support for entrepreneurs developing the best business plans.

Speaking during the launch of the initiative, Prof. Nagarajan, Dean, Industry and Alumni Relations, IIT-Madras, said, "IIT Madras has established itself as a leader among academic institutions in promoting entrepreneurship among its faculty and students, with alumni being a solid pillar of support. In particular, social entrepreneurship is a key imperative of the Institute, and corporate support in the form of CSR has come as a tremendous boost in this respect."

The programme is specifically designed for the needs for women entrepreneurs and will provide insights on various areas such as finance, marketing, information technology, banking, and soft skills. The programme would be delivered by faculty members from the Department of Management Studies, IIT Madras and experienced practitioners from the industry.

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of formal training in running a business. The problem is even more acute for women entrepreneurs. While most of them have some degree of domain experience in the areas in which they operate, business skills and knowledge are mostly self-learnt. Through this programme, it is our desire to make modem management insights and knowledge easily accessible to these marginal entrepreneurs."

Each year 100 people would be trained for three years. Each programme would be for a week, which would be followed by a reflective session after six months to understand how the program has impacted the participants.

On behalf of CAMS, N K Prasad, President and Chief Executive Officer said, "CAMS as part of its CSR activities has been carrying out various projects in the fields of education, vocational training, he althcare and other social welfare activities. In the current financial year, CAMS is delighted to be associated with IIT-Madras in supporting the training focused at small scale entrepreneurs. We are sure that the proposed training which include workshops, mentoring and monitoring sessions to be carried out by eminent faculties associated with IIT Madras would go a long way in the entrepreneurs scaling up their operations."

Date: 31st July 2017 Publication: BL on Campus Edition: Online Journalist: NA Professor: Prof Nagarajan & Prof. Thillai Rajan Headline: IIT Madras to train 300 women entrepreneurs in TN URL: <u>http://www.bloncampus.com/news-wrap/iit-madras-to-train-300-women-entrepreneurs-in-tn/article9792521.ece</u>



## IIT Madras to train 300 women entrepreneurs in TN

In tie-up with Hand in Hand and CAMS, programme will cover finance, marketing, IT and banking

Indian Institute of Technology Madras launched a new initiative on July 28 to train 300 women entrepreneurs engaged in micro and marginal enterprises in Tamil Nadu. The Institute has joined hands with CAMS Group, which is providing a funding support of about ₹45 lakh, and Hand-in-Hand India, a charitable trust, for this three-year project.

The programme aims to provide high impact training to the entrepreneurs by providing key inputs in different areas of business and management that will help them improve their growth rates and profitability.

To be effective and meet the needs of the participants, the programme will be conducted in Tamil. The beneficiaries will be identified by Hand-in-Hand India and finalised by IIT Madras and the training will be conducted in the entrepreneurs' own localities.

## Social entrepreneurship

Speaking at the launch of the initiative, Prof Nagarajan, Dean, Industry and Alumni Relations, IIT-Madras, said: "IIT Madras has established itself as a leader among academic institutions in promoting entrepreneurship among its faculty and students, with the alumni being a solid pillar of support. In particular, social entrepreneurship is a key imperative of the Institute, and corporate support in the form of CSR has come as a tremendous boost in this respect."

Speaking about the programme, Prof Thillai Rajan, Department of Management Studies, IIT-Madras, and one of the Programme Directors, said: "This initiative is a result of the success of an earlier pilot done in January 2016. About half the participants in that programme successfully obtained bank loans within six months of completing it."

After the training, participants began to organise and run their businesses in a more systematic manner, which provided comfort to banks in their lending decisions.

## Collaboration with CAMS, Hand in Hand

The training is specifically designed for women entrepreneurs and will provide insights on various areas such as finance, marketing, information technology, banking, and soft skills. The programme will be delivered by faculty members from the Department of Management Studies, IIT Madras and experienced practitioners from industry. The plan is to train 100 people a year, for three years. Each programme will last a week, and will be followed by a reflective session after six months to understand how the participants have been impacted.

Speaking about this project, NK Prasad, President and CEO, CAMS, said: "As part of its CSR activities, CAMS has been carrying out various projects in the fields of education, vocational training and healthcare, and other social welfare activities. In the current financial year, CAMS is delighted to be associated with IIT Madras in supporting the training focussed at small-scale entrepreneurs. The proposed training, which includes workshops, mentoring and monitoring sessions to be carried out by eminent faculty members associated with IIT Madras, will go a long way in helping the entrepreneurs scale up their operations."

## Management insights

A key feature of the training is the subsequent mentoring support offered to participants. The mentors will continue to guide the participants in developing a business plan, and Hand in Hand will facilitate in the process of obtaining financial support for entrepreneurs who develop the best business plans.

Prof. Thillai Rajan pointed out that: "An important problem faced by the majority of micro and marginal entrepreneurs is the lack of formal training in running a business. The problem is even more acute for

women entrepreneurs. While most of them have some degree of domain experience in the areas in which they operate, business skills and knowledge are mostly self-learnt. Through this programme, we plan to make modern management insights and knowledge easily accessible to these marginal entrepreneurs."

Dr Kalpana Sankar, Chairperson and Managing Trustee, Hand in Hand, said: "The training will help SHG women manage the enterprises with profit and grow the business." Dr Jeyaseelan, Group CEO, Hand in Hand added that: "This training will enable the SHG women to move their enterprises from informal to formal sector."

Experienced and social-minded entrepreneurs have been invited to volunteer as honorary mentors to the participants in the programme. Those interested can contact Prof. Thillai Rajan at <u>thillair@iitm.ac.in</u>.

Date: 31st July 2017 Publication: HT Syndication Edition: Online Journalist: NA Professor: Prof Nagarajan & Prof. Thillai Rajan Headline: IIT Madras to train 300 Micro and Marginal Women Entrepreneurs in Tamil Nadu URL: <u>http://www.htsyndication.com/htsportal/india-education-diary/article/iit-madras-to-train-300-</u> micro-and-marginal-women-entrepreneurs-in-tamil-nadu/22059327

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In order to be effective and meet the needs of the participants, the program will be conducted in Tamil language. The beneficiaries will be identified by Hand-in-Hand...

Date: 31st July 2017 Publication: UNI Edition: Online Journalist: NA Professor: Prof Nagarajan & Prof. Thillai Rajan Headline: IIT-M to train 300 Micro, Marginal Women Entrepreneurs in TN URL: <u>http://www.uniindia.com/iit-m-to-train-300-micro-marginal-women-entrepreneurs-in-</u> tn/states/news/943786.html#WSeFcZhiH3hyh15i.99

## IIT-M to train 300 Micro, Marginal Women Entrepreneurs in TN

Chennai, July 28 (UNI) The Indian Institute of Technology-Madras (IIT-M) today launched a new initiative under which 300 micro and marginal women entrepreneurs would be trained in Tamil Nadu.

The IIT-M has joined hands with CAMS Group, which is providing a funding support of about Rs 45 lakh, and Hand-in-Hand India, a charitable trust, for this three-year project.

A release from IIT-M said the program aims to provide high impact training to the women entrepreneurs by providing key inputs in different areas of business and management, thereby helping them to improve their growth rates and profitability.

"To make it more effective and meet the needs of the participants, the program will be conducted in Tamil language", it said, adding, the beneficiaries would be identified by Hand-in-Hand India and finalized by IIT-M and the training would be conducted in entrepreneurs' localities.

Speaking at the launch event, Prof Nagarajan, Dean, Industry and Alumni Relations, IIT-M, said "IIT Madras has established itself as a leader among academic institutions in promoting entrepreneurship among its faculty and students, with alumni being a pillar of support."

"In particular, social entrepreneurship is a key imperative of the Institute, and corporate support in the form of CSR has come as a tremendous boost in this respect", he added.

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## IIT-M to train women entrepreneurs

Hyderabad: Indian Institute of Technology Madras launched a new initiative to train 300 micro and marginal women entrepreneurs in Tamil Nadu. The Institute has joined hands with CAMS Group, which is providing a funding support of about Rs. 45 lakh, and Hand-in-Hand India, a charitable trust, for this three-year project.

The program aims to provide high impact training to the women entrepreneurs by providing key inputs in different areas of business and management. This will help participants to improve their growth rates and profitability.

Speaking during the launch of the initiative, Prof Nagarajan, Dean, Industry and Alumni Relations, IIT-Madras, said, "IIT Madras has established itself as a leader among academic institutions in promoting entrepreneurship among its faculty and students, with alumni being a solid pillar of support. In particular, social entrepreneurship is a key imperative of the Institute, and corporate support in the form of CSR has come as a tremendous boost in this respect."

Speaking about this program, Prof. Thillai Rajan, Department of Management Studies, IIT-Madras, and one of the Program Directors, said, "This initiative is a result of the spectacular success of an earlier pilot program done in January 2016. About half of the participants in that pilot program successfully obtained bank loans within six months of completing the program."

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# IIT-M to mentor 300 women entrepreneurs

CHENNAL: The Indian Institute of Technology-Madras (IIT-M) on Friday launched a new initiative under which 300 micro and marginal women entrepreneurs would be trained in Tamil Nadu.

IIT-M has joined hands with CAMS Group, which is providing a funding support of about Rs 45 iakh, and Hand-in-Hand India, a charitable trust, for this three year project, said a press release from IIT-M. The programme will he conducted in Tamil, and the beneficiaries would be identified by Hand-in-Hand India and finalised by IIT-M. The training would be conducted in the entrepreneurs' localities.

Speaking at the launch event, Prof Nagarajan, Dean, Industry and Alumni Relations, IIT-M, said, "Social entrepreneurship is a key imperative of IIT-M, and corporate support in the form of CSR has come as a tremendous boost in this respect," he added. Prof Thillai Rajan, one of the programme directors said, "This initiative is a result of the spectacular success of an earlier pilot program done in January 2016 About half of the participants in that pilot program successfully obtained bank loans within six months of completing the programme."

The programme would be delivered by faculty members from the Department of Management Studies, IIT, Madras and experienced practitioners from the industry. Each year,100 people

would be trained. Each programme would be for a week and it would be followed by a reflective session after six months to understand how the programme has impacted the participants.

N K Prasad, President and CEO of CAMS said, a key feature of the program was the mentoring support to the participants after completion of the program. Hand in hand would facilitate in the process of obtaining financial support for entrepreneurs developing the best business plans.