

VOL 04, ISSUE 1
July 2018

तेजस गणक

OFFICIAL NEWSLETTER

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Einstein's Corner



Inspirational quote

Logic will get you from A to Z; imagination will get you everywhere.

Chief-Editor:
Dr. Namita Gupta

Editors:
Mr. Ashish Sharma
Dr. Farzil Kidwai

Members:
Mr. Sandeep Tayal
Mr. Moolchand Sharma

Students Co-ordinator:
Mr. Siddharth Mittal
Mr. Sushant Verma
Ms. Radhika Bansal
Mr. Anmol Mittal
Ms. Srishti Sahni

VISION
"To Produce Critical thinkers of Innovative Technology"

MISSION
"To provide an excellent learning environment across the computer science discipline to inculcate professional behavior, strong ethical values, innovative research capabilities and leadership abilities which enable them to become successful entrepreneurs in this globalized world"

In This Issue

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THE DEPARTMENT

HISTORY OF DEPARTMENT

The Computer Science and Engineering Department was established in the year 1999 under GGSIP University with an intake of 60 students. The intake was subsequently increased to 120 and at present has intake of 240 students.

Department is committed to achieve excellence in technical education & research and assesses the success of its programs using the highest standards of quality. A group of well qualified, experienced and highly motivated faculty is engaged in providing quality education to the future computer engineer and prepare the students in wider field of Computer Engineering to take up challenging jobs in the area of Systems Software Development, Application Software Development and Computer Networking. Since its inception, the department has been the first choice of the students seeking admission in the private Engineering Institutes under GGSIP University. Graduates from the department are heavily recruited by both academia and industry, and ex-students of the department occupy top positions in both academia and industry all over the world.



Message from the head

Department of Computer Science & Engineering commits to work towards developing Engineers with a rich blend of competent, technical, managerial and social skills and contribute to nation building. Department places emphasis on all the important aspects of computers such as Computer Networks, Mobile Communication, Algorithm Design, Operating System, Advance Database Systems, Theory of Computation, Computer Graphics and many more. Department takes the initiative to improve the soft skills, analytical capabilities and verbal communication of the students so that they can face the competition in the corporate world confidently. To meet the objectives, department pays special emphasis on teaching and hands on practical work. Students exhibit their innovative ideas, skills and potentials as final year projects and have won many awards at University level. The excellent infrastructure, experienced team of faculty dedicates to strengthen effective teaching learning process ensuring quality education.

We believe that this approach to teaching-learning, coupled with practical experience gained during Industrial Training in reputed organizations, equips our students to handle the challenges posed by the IT industry. Students of Computer Science and Engineering are placed with top IT companies. We as a team resolve to take the Department to heights of success and glory and prepare for the forthcoming challenges.

Dr. Namita Gupta
HOD CSE

DEPARTMENT INTAKE

FIRST SHIFT – 180

SECOND SHIFT - 60

PLACEMENT DETAILS (BATCH 2014-2018) Till 2018

S.No	Name of the Company	No. of Students Recruited
1	INFOSYS	57
2	ACCENTURE	33
3	WIPRO	7
4	MINDTREE	11
5	NEWGEN	13
6	LIBSYS	3
7	ZS ASSOCIATES	3
8	MAHINDRA COMVIVA	5
9	GLOBAL LOGIC	7
10	PAYTM	1
11	HITACHI	4
12	MICROSOFT	1
13	ION TRADING	2
MANY MORE COMPANIES...		

HIGHLIGHTS

Name: SagarMiglani, 11014802714
Company: ION Trading
Package: 12 LPA
Name: Manav Gupta, 01714802714
Company: ION Trading
Package: 12 LPA
Name: Mayank Shah, 60214802714
Company: ZS Associate (Data Science Associate)
Package: 12 LPA
Name: Kartikey Aggarwal, 30696402714
Company: ZS Associate (Decision Analytics Consultant)
Package: 6.53 LPA
Name: Rahul Chauhan, 11514802714
Company: Libsys
Package: 6 LPA

GGSIU RESULTS (MAY 2018)

BATCH 2014-2018

Rank	Roll No.	Name	CPI
1	11914802714	AISHWARYA DHEMBLA	87.36
2	60214802714	MAYANK SHAH	86.7
3	60014802714	KRITI JAIN	84.99
4	12214802714	SHADUAL SINHA	84.87
5	05414802714	SHUBHAM AGGARWAL	83.71

BATCH 2015-2019

Rank	Roll No.	Name	CPI
1	02696402715	NIKITA GUPTA	87.55
2	20114802715	UTKARSH VERMA	86.59
3	06914802715	PRABHNOOR SINGH	86.35
4	04496402715	SNEHIL	85.58
5	0496402715	ABHISHEK MITTAL	85.55

BATCH 2016-2020

Rank	Roll No.	Name	CPI
1	36414802716	SHUBHI JAIN	86.95
2	20514802716	VIRENDER SINGH	86.27
3	35114802716	AKANKSHA SOOD	85.41
4	36214802716	SAKSHI BINDAL	85.35
5	01596402716	HARSHIT SINGHAL	84.99

BATCH 2017-2021

Rank	Roll No.	Name	CPI
1	41714802717	MANVI TYAGI	87.54
2	43714802717	KETAN JUNEJA	87.04
3	06114802717	SAHIL TYAGI	86.48
4	45814802717	SIDDHANT GUPTA	85.26
5	01714802717	BHARAT SHARMA	84.74



1. Two-Day FDP Accenture Learning Symposium on “Deep Learning” and “DevOps” conducted on 19th Feb – 20th Feb 2018 at Amity University, Noida. The FDP was attended by Faculties from Various Colleges. The Faculty Members who attended the FDP are Dr. Pooja Gupta, Mr. Ashish Sharma and Mr. Moolchand Sharma.



FACULTY UPDATES

Faculty members pursuing Ph.D.

1. Mr. Neeraj Garg
2. Mr.SandeepTayal
3. Mr. SaurabhRastogi
4. Mr. Ashish Sharma
5. Ms. Sudha Narang

Faculty member qualification update

1. Mrs. Ruchi Goel registered in PhD at Delhi Technological University, Delhi from July 2018.
2. Mrs. Divya Arora registered in PhD at Indira Gandhi Delhi Technical University for Women(IGDTUW),Delhi from July 2018

SEMINAR ORGANIZED BY THE DEPARTMENT

1. A five day FDP on “Next Gen Technologies” was organized by the department of CSE & IT from 16th -20th July 2018 in Computer Center Room No. 114
2. A five day FDP on "IT Technologies for e-Commerce" was organized by the department of CSE in association with Brain Mentors, TCS and ISSAC Lab Solutions from 22nd-24th Feb, 26th-27th Feb 2018 in Computer Center Room No. 114.
3. One day workshop on “Angular JS”, in collaboration with “Brain Mentors” was organized for CSE 2nd year students on 15th Feb, 2018.
4. Department of Computer Science & Engineering organized 1-Day workshop on “ BIG DATA & HADOOP ”on 08th Feb 2018 in association with Cetpa for the students of all MAIT Engineering disciplines under Dr. Namita Gupta ,Mr.Ashish Sharma & Mr. Moolchand Sharma
5. Online Coding Competition named “Infinite Loop” organized by Code Matrix Society of CSE Department on 20th January, 2018 under Mrs. Sudha Narang as faculty coordinator.
6. TED^x MAIT an independently organized TED event held on March 17, 2018 at Maharaja Agrasen Institute of Technology.



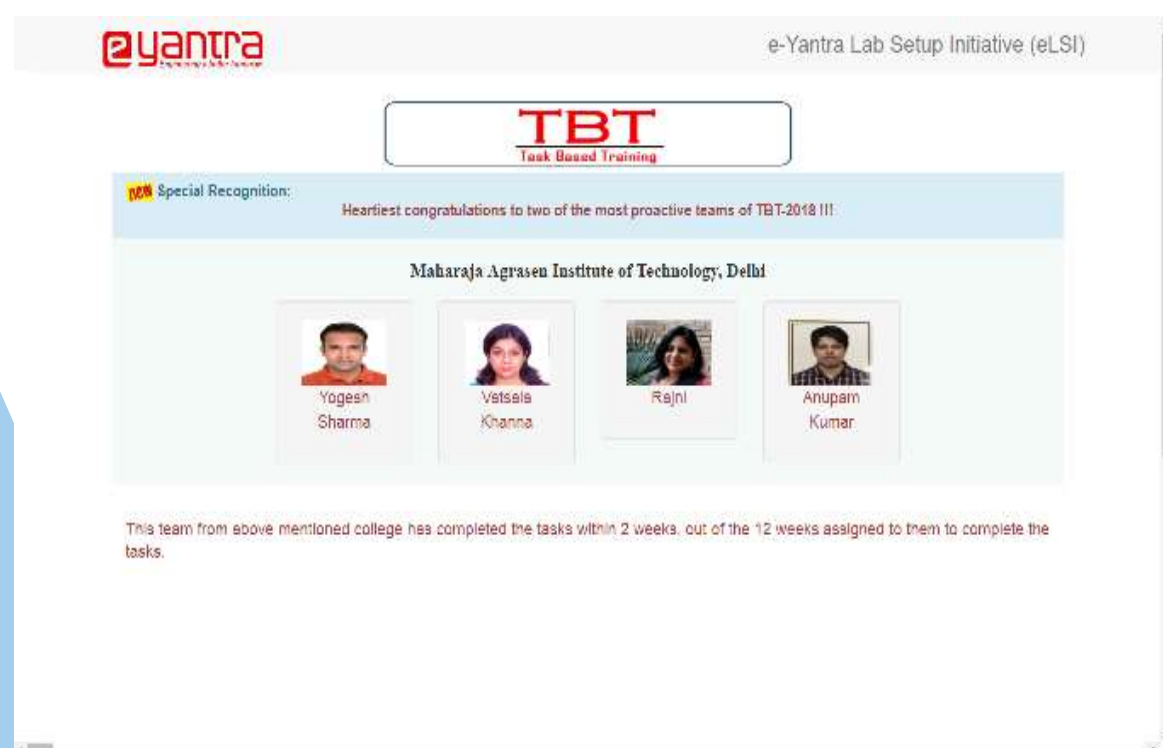
FACULTY DEVELOPMENT PROGRAM

- Two days' workshop at IIT Bombay under the e-Yantra Lab Setup Initiative (eLSI) program. Mr. Yogesh Sharma (Assistant Professor, CSE), Mr. Anupam Kumar (Assistant Professor, CSE), Ms. Vatsala Khanna Arya (Assistant Professor, ECE) and Ms. Rajni (Assistant Professor, ECE) attended a two day workshop at IIT Bombay from 20th -21st July 2018, conducted by e-Yantra under the e-Yantra Lab Setup Initiative (eLSI) program. e-Yantra is a project hosted by IIT Bombay to impart education in Embedded systems and Robotics and is sponsored by Ministry of Human Resource Development (MHRD) through the National Mission on Education through ICT(NMEICT).

The eLSI Program is a two phased program having (i) Two-day workshop (ii) Task based training



Greetings from e-Yantra!!!



TECHCOM –TECHNICAL COMPUTER SOCIETY

TechCom is the official technical computer society of CSE, MAIT. TechCom aims to nurture talents and provide training to students who have keen interest in Computer Science & Technology.

Various activities are undertaken to provide students the platform to explore the world of technology, workshops to train students on the recent technologies, Competitions such as quizzes and hackathons are conducted regularly for students to prove their mettle in the field of hardware. With over 100 students as a part of this society, TechCom aspires to create a environment for learners to foster the spirit of learning and innovation. Society encourage new ideas to develop better understanding of the subject, and aim to make fun computers and easy for students. Faculty Coordinators of TechCom are **Mrs. Kavita Saxena & Mrs. Deepti Gupta**. Student Office Bearers of TechCom 2017 – 18 are given below:

S.No.	Position	Name of the Student	Year/Semester
1.	President	Heena Garg	7 th
2.	Vice President	Gyan Vardhan	7 th
3.	Secretary	Aakash	7 th
4.	General Secretary	Abhishek Popli	7 th
5.	Coordinator	Sanket Singh, Vasudev	5 th

- Mock Interview was organized by CSE department for the students of MAIT on 23rd March 2018. This event was organized under TECHSURGE, 2018. It was to prepare students for placements & interviews. A fulfilled event saw participation from students of all the four years.
- Coding Junction was organized by CSE department for the students of MAIT on 22nd March 2018. This event was organized under TECHSURGE, 2018. It was a coding competition. A fulfilled event saw participation from students of all the four years.
- Workshop on Angular JS was organized by CSE department in association with Brain Mentors by Mr. Amit & Ms. Ekta on 15th Feb 2018.
- Code-a-thon 2.0 was organized by CSE department for the students of MAIT on 10th Feb 2018. It was sponsored by Hackerearth.
- Code-a-thon was organized by CSE department for the students of MAIT on 08th Feb 2018. It was sponsored by Coding Blocks.
- Workshop on Android App Development by Arnav at Coding Blocks, final year student (CSE) on 25th Jan 2018.
- INFINITE LOOP 2.0 online coding competition organized by CSE department on 20th Jan 2018. The competition

ACM CHAPTER EVENTS



Organized By-ACM-MAIT Student Chapter

1. MAIT ACM Student Chapter Organized Introduction to Android: The Kotlin way, a two-day workshop on Kotlin: the official language of Android on 09th-10th APRIL 2018.
2. MAIT ACM Student Chapter Organized HTML Canvas a 2 day workshop on HTML, CSS and JS teaching you interactive graphics on 15th-16th MARCH 2018.
3. MAIT ACM Student Chapter Organized Geekends a weekly online coding series, to introduce you to competitive programming on 03rd-04th FEB 2018.
4. MAIT ACM Student Chapter Organized Geekends a weekly online coding series, to introduce you to competitive programming on 27th JAN 2018



S.NO	NAME	YEAR/MONTH	EVENT	ORGANISATION	AWARD
1	Himanshu Sharma	Jan,2018	Street Play	Guru Nanak institute of Management	1 st position
2	Mayur Garg	Feb,2018	Quillography (Creative Writing Competition)	IGDTUW	1 ST Position
3	Himanshu Sharma	March,2018	Street Play	Maitreyi College, DU	1 st position
4	Himanshu Sharma	March,2018	Street Play	Bhaskaracharya College of Applied Sciences	1 st position
5	Ashish Singhal	March,2018	Street Play	Sri Aurobindo College, DU	3 rd position

STUDENT'S TECHNICAL ACHIEVEMENTS

1. B.Tech Students of MAIT won first prize at Smart India Hackathon (SIH18) under Ministry of Information and Broadcasting for the problem - Social Media Sentiment Analysis at the 36 hours grand finale held on 30-31 March 2018 at JCERC University, Jaipur nodal centre.
2. B.Tech Computer Science Second year Students of MAIT won Innovation award at Smart India Hackathon (SIH18) under Ministry of Water Resources, River Development and Ganga Rejuvenation for the problem - APPLICATION FOR REPORTING ENCROACHMENT, POLLUTION OR REQUIREMENT OF RRR FOR WATER BODIES at the 36 hours grand finale held on 30-31 March 2018 at PSIT, Kanpur.
3. B.Tech Computer Science Second year students - Vipin Bhardwaj, Siddharth Aggarwal, Chakshu Jain, and Neeraj Joshi participated in the e-Yantra (eYRC-2017) Robotics Competition held on 22-24 March 2018 at IIT Bombay. The team has been selected as one of 5 finalists out of 63 teams in the *Planter Bot* theme and has been placed at *First* position in the theme. Students were awarded with certificates and a cash prize of Rs. 20,000. Students designed an optimized algorithm for line following on the arena and also for overlaying of images.



STUDENTS GOING FOR HIGHER STUDIES



Name	University	Course
Apruv Jain	IIT, Kharagpur	M.Tech (CSE)
Surbhi Pal	IIT, Roorkee	M.Tech (CSE)
Shivangi Dixit	IGDTUW, Delhi	M.Tech (ISM)
Ishwarya Anand	USICT, Delhi	M.Tech (IT)
Raunak Choubey	International Management Institute, Delhi	MBA
Rajiv Joshi	New York University, Brooklyn	M.S. Computer Science
Vaishali Garg	USICT, Delhi	M.Tech (CSE)
Priya Sinha	IMT, Ghaziabad	PGDM Finance
Manish Kumar	DTU, Delhi	M.Tech (CSE)
Shivam Sharma	XLRI, Jamshedpur	PGDM Business
Prashant Joshi	San Diego State University, California	M.S. Computer Science

S.No	Faculty Name	Title	Journal/Conference	ISSN/DOI	Year
1	Garima Gupta	Comparative Study of Random Forest and Neural Network for Prediction in Direct Marketing	International Conference on Signals, Machine and Automation, SIGMA 2018, NSIT, Delhi		Feb , 2018
2	Deepak Gupta	Taxonomy of GUM and Usability Prediction using GUM Multistage Fuzzy Expert System	International Arab Journal of Information Technology		2018
3	SudhaNarang, NipunAggrawal	Comparison of Face Recognition Algorithms Using OpenCV for Attendance System	International Journal of Scientific and Research Publications	2250-3153	Feb, 2018
4	Divya Arora, KarunaMiddha	Comparative Analysis of Data Mining Techniques in Sphere of Medical Science	International Journal of Computer Applications	0975-8887	Mar,2018
5	KarunaMiddha, AkankshaChoudhary Anchal Bansal, Anshita Dhawan	Global Terrorism Visualisation and Analysis	International Journal of Computer Applications	0975-8887	Mar,2018
6	Savita Sharma, Priyesh Mishra, SahilKoli	Handwriting Recognition and Character prediction using Neural Networks	International Journal for scientific research and Development	2321-0613	Mar,2018
7	Ashish Sharma, Simranmjeet singh Randhawa, Aditya Kumar, Kapil Tyagi	Document Security and Storage on Block chain	JETIR International Journal	2349-5162	April, 2018
8	Ashish Sharma, Sidharth	Malicious Node Identification in Hybrid Architecture Performance Analysis for Device to Device Communication in 5G Cellular Network	JETIR International Journal	2349-5162	April, 2018
9	Moolchand Sharma, Priyansha Garg, Shivani Agrawal, Yastika Kumar	Security on Cloud Computing using SPLIT Algorithm with Cryptography and Steganography	International Conference on Innovative Computing and Communication (ICICC-2018)		May,2018

1. The Team Solartrix, won HULT PRIZE India National Finals 2018, held on 7th and 8th April 2018 at The Circle, Gurugram and IIT Delhi winning the title "HULT PRIZE India National Team", to represent the country at the London Accelerator, July – August 2018 for HULT PRIZE Global Finals at the UN in September 2018. \
2. Team named Solartrix stood first in HULT PRIZE Event. TEAM SOLARTRIX developed a product plan for SYNCHOLAR - SELF EFFICIENT SUN SYNCHRONOUS SOLAR WATER HEATER Winner details: 1.Ayush Garg – 3rd year CSE 2.Vidushi Bhadola 3rd year IT 3.Arushi Sharma 2nd year IT 4.Shrey Gupta 3rd year IT.



RESERACH PAPERS IN JOURNALS & CONFERENCES

S.No	Faculty Name	Title	Journal/Confere nce	ISSN/DOI	Year
10	Namita Gupta, Rekha Singla, Shubham Ganguly, Raghav Goyal, Anuj Mittal	Comparative Study of similarity measures in item based recommendation	National Conference on Computing Informatics and Networks (NCCIN-2018)		May,2018
11	Prerna Sharma, Aastha Aggarwal, Apoorva Gupta, Akshit Garg	Leaf Identification Using HOG, KNN and Neural Networks	International Conference on Innovative Computing & Communication (ICICC-2018)		May, 2018
12	Prerna Sharma	STREET LIGHT ENERGY SAVER	International Conference on Innovative Computing & Communication (ICICC-2018)		May,2018
13	Deepak Gupta, Ashish Khanna, Arnav Julka, Tushar Aggarwal	Optimized Cuttlefish Algorithm for diagnosis of Parkinson's disease	Cognitive Systems Research,	Volume 52, 36-48	June ,2018
14	Deepak Gupta, Ashish Khanna, Shrish Sundaram	Improved diagnosis of Parkinson's disease based on Optimized Crow Search Algorithm	Computers and Electrical Engineering	Volume 68, 412-424	May,2018
15	Deepak Gupta ,Ashish Khanna, Naman Gupta	Fault-Tolerant Moving Resource Mutual Exclusion Algorithm for FANET	Ad Hoc Networks		June 2018

OTHER EVENTS

1. MCH Hack is a student community based in Galgotias University, Greater Noida. The first edition of MCH Hack was organized at Galgotias University on 3rd-4th February`18. In total 36 teams had been shortlisted and the team from our college won 2nd prize of Rs5000. and T-shirts. Members of team were Manas Bhardwaj, Harshita Jain and Aayush bajaj. Problem Statement: To Minimize Online Advertisement Costs and to reduce Online Advertisement To make a Transparent Advertisement ecosystem in the current online world so that the publishers and the advertisers start avoiding the unnecessary interruption of the third party in between them, this will become beneficial to both.
2. TEDX MAIT an independently organized TED event held on March 17, 2018 at Maharaja Agrasen Institute of Technology. A TEDx event is a local gathering where live TED-like talks and videos previously recorded at TED conferences are shared with the community. TEDx events are fully planned and coordinated independently, on a community-by-community basis. The content and design of each TEDx event is unique and developed independently, but all of them have features in common.
3. Ms. Nikita Gupta (CSE student 02696402715) and Dipti Nayan (CSE student 12196402715) conducted a session on Microsoft Technogies for junior students.
4. ET Campus Stars was launched with an aim to identify India's brightest engineers who will be the flag bearers to India's growth engine using their tech skills. Thousands of students from more than 2,000 engineering colleges participated in the program. Deepanshu Kansal, fourth-year Computer Science Engineering student is an ET Campus Stars Challenger 2017-18.
5. Code-a-thon held at MAIT on 8th Feb 2018, Vipin Bhardwaj(2nd year), Neeraj Joshi(2nd year), Vikas kumar Jha(1st year) ,Ayush Jain(2nd year) ,Vishwas(3rd year), above students won in the event.
6. Code-a-thon, HackerEarth, held at MAIT on 10th Feb 2018, Ayush Jain (2nd year) Neeraj joshi (2nd year) Vipin Bhardwaj (2nd year) Parul Garg (1st year) Sumit kumar jha (2nd year), above students won in the event.

1. Applying machine learning to the universe's mysteries

JANUARY 30, 2018 ,DOE/Lawrence Berkeley National Laboratory

Physicists have demonstrated that computers are ready to tackle the universe's greatest mysteries -- they used neural networks to perform a deep dive into data simulating the subatomic particle soup that may have existed just microseconds after the big bang.



The colored lines represent calculated particle tracks from particle collisions occurring within Brookhaven National Laboratory's STAR detector at the Relativistic Heavy Ion Collider, and an illustration of a digital brain. The yellow-red glow at center shows a hydrodynamic simulation of quark-gluon plasma created in particle collisions.

2. Real-time Captcha technique improves biometric authentication

February 19, 2018 ,Georgia Institute of Technology

A new login authentication approach could improve the security of current biometric techniques that rely on video or images of users' faces. Known as Real-Time Captcha, the technique uses a unique 'challenge' that's easy for humans -- but difficult for attackers who may be using machine learning and image generation software to spoof legitimate users.

The Real-Time Captcha requires users to look into their mobile phone's built-in camera while answering a randomly-selected question that appears within a Captcha on the screens of the devices. The response must be given within a limited period of time that's too short for artificial intelligence or machine learning programs to respond. The Captcha would supplement image- and audio-based authentication techniques that can be spoofed by attackers who may be able to find and modify images, video and audio of users -- or steal them from mobile devices.

The technique will be described February 19th at the Network and Distributed Systems Security (NDSS) Symposium 2018 in San Diego, Calif. Supported by the Office of Naval Research (ONR) and the Defense Advanced Research Projects Agency (DARPA), the research was conducted by cyber security specialists at the Georgia Institute of Technology.

3. Hail technology: Deep learning may help predict when people need rides

March 1, 2018, Penn State

Computers may better predict taxi and ride sharing service demand, paving the way toward smarter, safer and more sustainable cities, according to an international team of researchers.

In a study, the researchers used two types of neural networks -- computational systems modeled on the human brain -- that analyzed patterns of taxi demand. This deep learning approach, which lets computers learn on their own, was then able to predict the demand patterns significantly better than current technology.

"Ride sharing companies, like Uber in the United States, and Didi Chuxing in China, are becoming more and more popular and have really changed the way people approach transportation," said Jessie Li, associate professor of information sciences and technology, Penn State. "And you can imagine how important it would be to predict the taxi demand because the taxi company could dispatch the cars even before the need arises."

Better predictions could lessen the time taxis idle waiting for rides, making cities cleaner, the researchers added. Because accidents tend to happen more often in congested areas, better ride prediction technology could also improve safety.

4. Engineers invent smart microchip that can self-start and operate when battery runs out

Game-changing technology maximises lifetime and enables smaller, cheaper IoT devices

May 3, 2018, National University of Singapore

The Internet of Things (IoT), while still in its infancy, is shaping the future of many industries and will also impact our daily lives in significant ways. One of the key challenges of moving IoT devices from concept to reality is to have long-lasting operation under tightly constrained energy sources, thus demanding extreme power efficiency. IoT devices -- such as sensors -- are often deployed on a massive scale and in places that are usually remote and difficult to service regularly, thus making their self-sufficiency essential.

Currently, batteries in IoT devices are much larger and up to three times more expensive than the single chip they power. Their size is determined by the sensor node lifetime, which directly affects how often they need to be changed. This has an important bearing on maintenance cost and impact on the environment when batteries are disposed. To extend the overall lifetime, the battery is usually recharged slowly by harvesting some limited power from the environment, such as using a solar cell. However, existing IoT devices cannot operate without battery, and small batteries are fully discharged more frequently. Hence, battery miniaturization often results in highly discontinuous operation of IoT devices, as they stop functioning every time the battery runs out of energy.

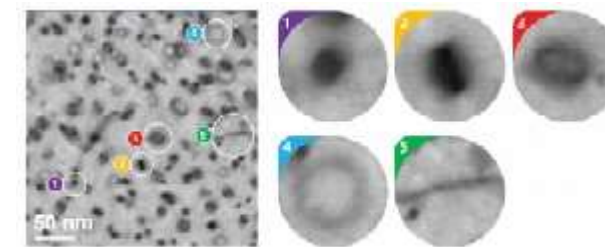
To address this technology gap, a team of engineers from the National University of Singapore (NUS) has developed an innovative microchip, named BATLESS, that can continue to operate even when the battery runs out of energy. BATLESS is designed with a novel power management technique that allows it to self-start and continue to function under dim light without any battery assistance, using a very small on-chip solar cell. This research breakthrough substantially reduces the size of batteries required to power IoT sensor nodes, making them 10 times smaller and cheaper to produce. The breakthrough has been presented at the International Solid-State Circuits Conference (ISSCC) 2018 conference in San Francisco, the premier global forum for presenting advances in solid-state circuits and systems-on-a-chip.

The leader of the NUS research team, Associate Professor Massimo Alioto from the Department of Electrical and Computer Engineering at the NUS Faculty of Engineering, said "We have demonstrated that batteries used for IoT devices can be shrunk substantially, as they do not always need to be available to maintain continuous operation. Tackling this fundamental problem is a major advancement towards the ultimate vision of IoT sensor nodes without the use of batteries, and will pave the way for a world with a trillion IoT devices."

5. Eagle-eyed machine learning algorithm outdoes human experts

July 20, 2018, University of Wisconsin-Madison

Researchers have trained computers to quickly and consistently detect and analyze microscopic radiation damage to materials under consideration for nuclear reactors. And the computers bested humans in this arduous task.



Radiation-damaged materials resemble a cratered lunar surface, and machine learning can now help with nuclear reactor design by finding a specific variety of defect faster and more accurately than expert humans.

Artificial intelligence is now so smart that silicon brains frequently outthink people. Computers operate self-driving cars, pick friends' faces out of photos on Facebook, and are learning to take on jobs typically entrusted only to human experts.

Researchers from the University of Wisconsin-Madison and Oak Ridge National Laboratory have trained computers to quickly and consistently detect and analyze microscopic radiation damage to materials under consideration for nuclear reactors. And the computers bested humans in this arduous task.