Not just magnitude but also the direction!

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DAILY NEWS & ANALYSIS DNA

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VIT bags multiple laurels at CSI Technext India Awards 2019!

Computer Society of India, CSI-Mumbai Chapter hosted the "Annual Industry – Academia Conference and Awards", "TECHNEXT INDIA, 2019" on 28th September, 2019, at the WeSchool Auditorium, Welingkar Institute of Management, Matunga. This year at CSI TechNext India Conference, an award function recognizing academicians all over India for various categories was held. Over 200 delegates and exhibition visitors (Principals, Heads of Departments, Professors, Research Scholars) heading Engineering Colleges and IT industry companies attended the conference.

We feel proud to inform that our college, Vidyalankar Institute of Technology, has been conferred with the following awards:

- **Best Institute Award** - Innovative pedagogical approaches and tools.
- **Best HOD Award:** Prof. Arun Chavan (HOD, Computer Engineering).
- **Best Faculty Award:** Prof. Anuradha Bhatia (IT Department).
- **Best Project Guided:** Prof. Kavita Shirsat (Computer Engineering Department).

VITian selected in the Indian Army as an Officer

Kudos to Hitesh Solanki, **VIT alumnus of BE Information Technology (Batch of 2019),** for being selected in the Indian Army as an Officer through SSC Tech 53 (technical entry) from Service Selection Board, Bhopal. Following his selection, he will undergo training at Officer's Training Academy, Chennai, which is India's toughest training academy and is said to be the world's third toughest training academy! His first rank after being commissioned will be Lieutenant. His selection story of being among the chosen few is inspiring to say the least.

Hitesh has a Black Belt in Karate training, a Black Belt in Taekwondo; he is a national level kickboxer too. For the selection,Hitesh had to go through the process of an SSB interview of 5days duration which comprised 15-18 rounds in which his paper intelligence, field intelligence, mental and physical strength and officer like qualities were tested. He went for it following intense prepara-tion with more than 11 hours of focused studying everyday. The selection process is considered to beone of the toughest in India with a success rate of less than 1 percent! His SSB was from 3-8 July, which he considers to be one of his best experiences ever. There were 3 main officers who were judging the candidates –the interviewing officer, psychologist and group task officer. Out of the 380 candidates only 2 got recommended and Hitesh is one of them!

After that he had to appearfor medical fitness tests for 5 days in which he got rejected because ofbeing overweight by 10kg, a muscle knot and knock knees. He applied for appeal to the Medical Board, following which he had approximately one month's time to reappear for medical fitness. He got a surgery done for the knot and started working with a physiotherapist for overcoming the issue of his knock knees. For 12 days he couldn't reduce his weight because of his surgery. Then within the next 20 days he reduced his weight by 12kgs. And finally on 17th August 2019 he cleared his medicals from INHS ASVINI (Mumbai).

About his VIT experience, Hitesh shares: "VIT is one of the best engineering institutes in Mumbai. Being from a really humble background VIT was like a dream college for me when Ihad first visited it. Very helpful teaching faculty and support staff, the best infrastructure,all facilities, and hygienic foodare among the many positive factors on the campus. Along with academics at VIT, extra-curricular and co-curricular activities are given equal importance. Activities like sports, presentations and fests helped me to improve my confidence, public speaking skills and management skills. Every teacher puts in lots of efforts, even takes extra classes just for our improvement, and is always available to students to solve their problems. Also I was never worried about placements as our Placement Cell makes sure that every student gets ample opportunities to get placed along with facilitating pre-placement trainings. Because of all the support from VIT, I got selected in 4 companies and the highest package that was offered to mebeing 10lakhs per annum. But I had always wanted to wear the uniform of our Armed Forces: either the Indian Navy's white uniform or the Indian Army's olive green; and so after my final 8thsemester exams, I continued to work for my dream and beat all odds to achieveit. I chose to try my luck at cracking SSB interview rather thanjoin the company where I got recruited with a 10 lakh annual package. I believe VIT has played a huge role in my selection and I would love to give back to my alma mater in the future by helping and guiding my juniors."

A different language: A different vision of life

The Literary Council of Vidyalankar Institute of Technology celebrated Hindi Diwas by organizing an event "Hindi Hain Hum" on 24thSeptember 2019 to honor Hindi - one of the national languages of our nation which is widely spoken. The event was graced by the famous actor and Padma Shri awardee Shri. Manoj Joshiwho is well-known for his versatile roles. The actor has worked in Indian cinema, television serials and in the theatre.

The drama team of the college 'V-Rangkalamanch' performed a spirited skit called "Jungle" which left the audience in splits while also portraying a message about the conservation of nature. Shri Manoj Joshi, through an inspiring address, shared insights on the versatility of Hindi and also encouraged the audience to be proud of the language as well as to use it more often.The event was then continued with a poetry segment where students recited poems on determination, wisdom, history, and patriotism. The next segment of the event was conducted by talented dancers who performed on popular Bollywood songs and succeeded in entertaining the crowd.The guest was interviewed and the same was documented on YouTube channel 'VIT Student Council' as series called 'Varta'.The Literary Teamof the Student Councilput up a winning show with this event.

"There comes a time when what is needed is not just rhetoric, but boots on the ground."

— Baldwin Spencer

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The Art of Rhetoric

The art of persuasive communication skills using figures of speech, grammar and logic is Rhetoric. Rhetoric is all about how a person presents their thoughts strategically and in a propagandistic way to convince people. The objective of rhetoric is to check the ability of the speakers or writers of being involved in the communication. It is interconnected with effective communication and effective listening as well. Rhetoric can be a powerful key to keep the world engaged with you on your terms, if one masters the Art of Rhetoric.

Taking everyday life into consideration, Rhetoric is everywhere! Right from advertisements of cars, insurance, food, cosmetics to a person persuading friends to try a particular restaurant or a certain thing. Rhetoric refers to how information is assembled and is provided to the other person; it includes gaining the trust of the person one is trying to pursue. For instance, rhetoric is the power to convince a client to invest or purchase. It engages the student in the lectures and on the latter side it turns to be an interactive, doubt solving session. Rhetoric also works as to motivate which inspires workers, employees to work on a specific task. Mastering the art of rhetoric assures confidence, assertive behaviour, and the power of reasoning. It not only helps you but also provide an opportunity to the clients, students, workers, etc. to think over the task/risk with great determination and perseverance. It also helps an individual to become an asset for a specific group.

Plato once said that rhetoric is "the art of ruling the minds of people". It helps expand the circle of your influence, in which one automatically gains the trust and respect of the people. Think of the most popular people in the world, from instabloggers to politicians. What is the key to their success? What makes them reach out to a wide audience that invests in them? It is rhetoric. How do you convince an interviewer to hire you? Rhetoric. The art of persuasion is indispensable in today's capitalist-driven labour market. Rhetoric helps one to converse with dynamism and intelligence. It is more important how one delivers the point rather than theory, during debates.

The students of VSIT competed in a debate competition organized on August 10, 2019. The guest judge, Mr. Shourya Chakravarty, CHRO of APTECH, expressed his ideas on the use of rhetoric to convince and effectively present one's ideas. Students from different streams enthusiastically debated on various topics of contemporary relevance.

– Zainab Kanchwala and Vaidehi Jadhav,
FYBScIT B, VSIT

World Entrepreneurs' Day Celebration at VSIT

"It's not about ideas. It's about making ideas happen" – Scott Belsky

The E-cell of VSIT strives to provide an environment to nurture and encourage budding entrepreneurs. In order to promote this entrepreneurial spirit, E-cell recently hosted World Entrepreneurs' Day and E-Cell Fair. On the same day, E-Cell of VSIT was rechristened 'UDYAM', which will also be used for its incubation centre.

The day of celebrating entrepreneurs witnessed the journey of eminent entrepreneurs in their own field, Mr.Raghunath Medge, former President of Mumbai Dabbawala Association and Mr. Pradeep Lokhande, Social Entrepreneur.

The speakers enlightened the students by sharing their journey from a common man to successful personalities in business and society. Mr. Raghunath astonished the crowd with logistic

strategy adopted by Mumbai Dabbawala to ensure delivery of lakhs of lunchboxes without having any error. The Dabbawala's punctuality, dressing sense and efficient management of supply chain have been chosen for various management case studies in colleges like Harvard and Stanford. There is lot to learn from Dabbawalas like their integrity towards work, how to work as a team, how to manage the labour force and use it perfectly.

The session was graced by Mr. Pradeep Lokhande, famously known as 'Post Card man of India'. He made the students spell bound by his fiery speech. His dedicated service in rural India and facts about rural population enabled the students to realised potential business opportunities in the villages of India. The incredible journey of Mr.Pradeep Lokhande in more than 49,000 villages across India helped him in understanding the need of villages for their upliftment. His speech brought the fact that positive thoughts of mind and bringing change in oneself will lead to transformation of the country.

Though the speakers were from different backgrounds, connected with the audience and had an enthusiastic talk. There were lot of take away from the session including knowledge, experience, motivation and the spirit of entrepreneurship. The session was indeed a great experience for the students which will surely help them in near future.

– Nishi Chopra,
President of E-Cell, VSIT

Spreading Awareness to protect the Environment

Social service is an unceasing endeavour driven by the spirit of generosity and a will to make a difference. The NSS (National Service Scheme) is one such unit which works for the betterment of society, environment and safety of the people. VSIT NSS Unit sensitized citizens about the environment by conducting various activities during Ganesha festival.

The Ganesha festival is one of the important festivals for Mumbaikars. The whole city rejoices but at the same time remains of Ganesha immersion are dangerous to the environment and especially for the marine ecosystem. So the VSIT NSS volunteers conducted nirmalaya collection drive on the day of immersion at Dadar beach in which they collected nirmalaya from the people handed over to NGOs for making organic fertilizers. This activity keeps the environment clean and helps protect the soil with organic fertilizers.

After immersion the beaches and sea shores get dirty as a lot of garbage, plastic and idols which do not dissolve in water are washed ashore and it is our duty to maintain our surroundings for a healthy environment. To clean the beaches, VSIT NSS volunteers did a post-immersion clean-up drive on September 02 and 08, 2019 at Dadar beach and on September 13, 2019 at Gir-

gaonChowpatty. The VSIT NSS volunteers helped traffic police to control the traffic and help manage the crowds. The places chosen for traffic controlling were Wadala bridge and Barkat Ali road on the last day of immersion.

Through street plays the NSS volunteers spread awareness that plastic can be reused for making show pieces, clothes and many more useful items i.e. best out of waste. When plastic waste piles up, it causes environmental issues and poses danger to life as plastic is non-biodegradable. They collected 30 kgs of plastic and handed-over for recycling to Bisleri as a contribution to their initiative known as Bottle for Exchange from 5th September to 11th September.

– Pratik Andhare
NSS Volunteer, SYBMS, VSIT

"Success in creating AI would be the biggest event in human history. Unfortunately, it might also be the last, unless we learn how to avoid the risks."
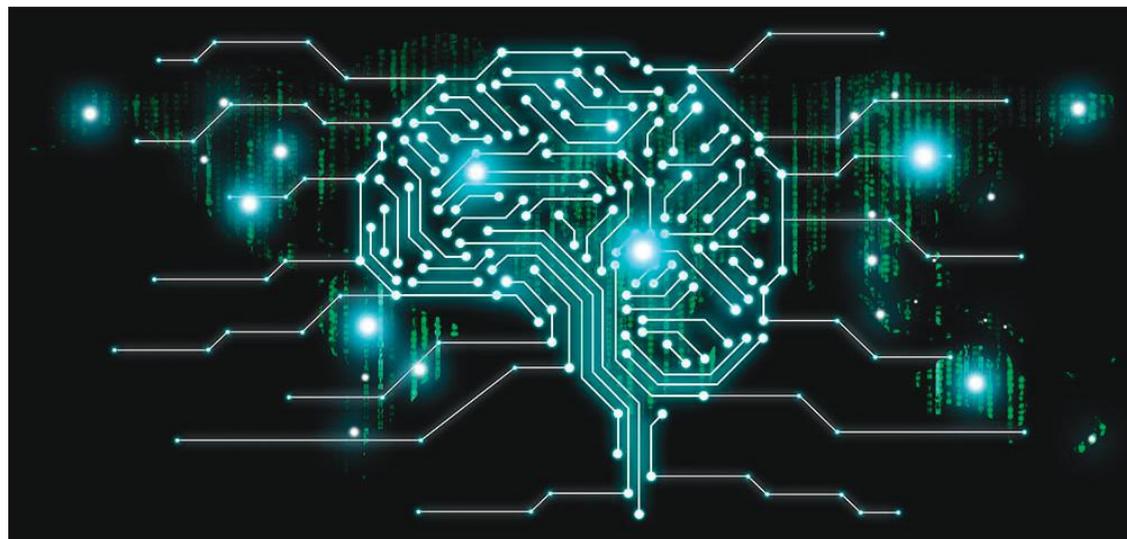— Stephen Hawking

Advent of artificial intelligence and Cognitive sciences

A paper published by Francois B. Vialette, et. al. reports high frequency gamma wave emission by subjects practicing a yoga technique of breathing control called Bhramari Pranayam. The exact activity of neural networks was not quantified, however. With unprecedented speed, the study of mind, brain and behavior has grown in recent years. Novel approaches of cognitive studies promise that human beings, after achieving considerable mastery in understanding the world around them, may inch closer to understanding themselves. Fundamental questions concerning intelligence processes and brain organization remain elusive and are yet to be answered. However, there's a lot of overlapping research that is happening in both – Cognitive Sciences and Artificial Intelligence.

As human brains increasingly interact with technology that mimics their own capabilities, the need for students to understand both science and engineering of intelligence continues to grow as well. At the same time ongoing advances in these technologies are driving demand for a deeper understanding of how the brain works. Simultaneously, it has become increasingly important for neuroscientists to have computational skills. New technologies and methods are creating enormous data sets. It's now possible to record the activity of hundreds of thousands of neurons. 'These are incredibly huge data sets and the best way to analyze them is to use Artificial Intelligence. We are basically building artificial brains to analyze the data in order to figure out how the human brain works', says Michale S. Fee, a Professor of Neuroscience, BCS, MIT. 'There is a lot of synergy between those areas and advances would be facilitated by the cross-fertilization of ideas', he adds.

As detailed in a number of recent reviews, AI has been revolutionized over the past few years by dramatic advances in neural network, or "deep learning" methods. As the moniker "neural network" might suggest, the origins of these AI methods lie directly in neuroscience. In the 1940s, investigations of neural computation began with the construction of artificial neural networks that could compute logical functions. Not long after, others proposed mechanisms by which networks of neurons might learn incrementally via supervisory feedback or efficiently encode environmental statistics in an unsupervised fashion. These mechanisms opened up the field of artificial neural network research, and they continue to provide the foundation for contemporary research on deep learning.

From AI to Neuroscience

Thus far, we have focused primarily on the role of neuroscience in accelerating AI research rather than vice versa. Historically, however, the flow of information between neuroscience and AI has been reciprocal. Machine learning techniques have transformed the analysis of neuroimaging datasets. Going further, building intelligent algorithms has the potential to offer new ideas about the underpinnings of intelligence in the brains of humans and other animals. In particular, psychologists and neuroscientists often have only quite vague notions of the mechanisms that underlie the concepts they study. AI research can help, by formalizing these concepts in a quantitative language and offering insights into their necessity and sufficiency (or otherwise) for intelligent behavior.

AI has deepened neuroscience-level understanding of the brain, namely the algorithms, architectures, functions, and representations it utilizes. This will in turn accelerate AI research in terms of mimicking human behavior with respect to Episodic Memory, Decision-bias, etc. With MIT launching a new joint major that combines human cognition, neuroscience, and computer science, research can enhance multifold. The Bachelor of Science in computation and cognition is designed to help students explore how the brain produces intelligent behavior and how it can be replicated in machines. It also has a M.Engg. associated degree that requires students to conduct research and submit thesis. With the advent of these two intertwining fields researching, playing GOD will not be left for future imagination.

– Shruti Karnik Gupte
qVirk

The Internet of Things: Connecting Private Lives, Together

Upton Sinclair had remarked in 1919 that "From first to last I had nothing to hide, and for that reason I had nothing to fear". He probably didn't intend that his words would be used as an argument advocating unfettered surveillance. One can argue that a person who doesn't have shared values with society, shouldn't cohabitate with society, but the definition of shared values, even today, remains as vague as the phrase itself. 91 years later, Blake Robbins was disciplined by his school for alleged activities involving narcotics. The evidence? Photographs from his bedroom. The source? The surveillance software installed on his school-issued laptop. Robbins v. Lower Merion School District had uncovered that not only were the photos of his bedroom taken, but also photos of his classmates in various stages of undress were stored. The personal chats, user location and private affairs of his peers were covertly obtained by his school. Lower Merion may have been settled in court but we must take a step back and acknowledge that our devices are no longer just embedded computers, they are an extension of the self. Lower Merion had sent chills nationwide just with their laptops.

Our smartphones are arguably trusted with more information than our laptops, they likely know more about you than you. The recent Google voice transcribing scandal (which included recording of intimate affairs and sensitive information) was just the tip an iceberg capable of sinking a few thousand Titanics. Having that ability embedded in everything from our light-bulbs, televisions and fridges to our nanny-cams and safes might let them know more about your home more than you. Maybe we shouldn't be okay with that. Your brand new smart fridge comes with an internal security camera, it is enabled when you tapped "I agree". Your insurance provider is giving you a discount on your annual premium if you let them see that footage, it seems fair, a discount's a discount. Maybe you shouldn't receive your health insurance for that car accident because you had a Smirnoff in the fridge two years ago. Maybe you're shouldn't get that management promotion? Your Alexa clearly shown us that you discussed "anti-national" views with your sister-in-law at home, you clearly are bad for company image. The casting couch is now on the family sofa, who knew that becoming a reality television star meant fooling around with the next door neighbour perpendicular to your oven's anti-theft system? Life cannot truly be experienced without a little bit a trust, but how much trust is too much? Is the experience that the internet of things promises worth that trust? Are you willing to let a diary that will never forget dictate itself to the world?

– A. Kazi
IF1IA, VP

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"Here men from the planet Earth first set foot upon the Moon.
July 1969 AD. We came in peace for all mankind."

— **Neil Armstrong**

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Chandrayaan-2 and How It United India

Throughout history, the world has witnessed a series of events that have served as the pedestal in bringing people and nations together; time and again, these events have aroused a wave of sentiments that have united mankind and nations, at large, across time, age and barriers. It is only fitting to say that a similar phenomenon occurred very recently in our own country when networks across the world telecasted the landing of the Indian-launched satellite on the Moon at 1:50 am IST. The Indian Space Research Organisation (ISRO) set out to make history by launching its second lunar exploration mission on July 22, 2019, at the Satish Dhawan Space Centre at 2:43 pm IST. Families and households across the nation sat tuned into their televisions as the Chandrayaan-2 orbited its way into the lunar surface on the night of 6thSeptember 2019. Fifty years after NASA launched Apollo 11 and landed the first man on the Moon, India too was on its way to leave a mark in the list of lunar expeditions.

Waves of emotions ran high on the night of 6th September as households across the nation watched with their hopes of a successful landing of the Chandrayaan-2. This would make India only the fourth nation to put a spacecraft on the Moon and the first to put a craft at the lunar South Pole. Only the U.S., Russia and China have landed spacecraft on the Moon. An attempt by Israel in April had failed.

Chandrayaan-2, which translates into "MoonCraft", consists of a lunar orbiter, the Vikram lander, and the Pragyaan lunar rover, all of which were developed in India. Its main scientific objective is to map and study the variations in lunar surface composition, as well as the location and abundance of lunar water.

The craft reached the Moon's orbit on August 202019, and began orbital positioning manoeuvres for the landing of the Vikram lander. Vikram and the rover were scheduled to land on the near side of the Moon, in the South Polar region. However, the lander deviated from its intended trajectory starting at 2.1 kilometres (1.3 mi)altitude, and lost communication when touchdown confirmation was expected. Multiple efforts were made by ISRO in hopes of restoring communications with Vikram. Communication attempts eventually ceased on 21st September. The orbiter, part of the mission with eight scientific instruments, remains operational and is expected to continue its seven-year mission to study the Moon.

The night of sixth September 2019 saw people across the country in a united front, eagerly awaiting the outcome of the Moon mission. The nation watched with spectacle as the spacecraft orbited into creating history. The Chandrayaan-2 carried with it, the fate of the country and its crores of people as it made its way through time and space into the lunar surface that have dictated more or less, the superiority in technologies that the nations possess.In that moment, irrespective of differences, caste, creed or religion, people were united by a common sense of hope for the successful landing of the spacecraft. So no matter what may have gone wrong in the later part of the mission, ISRO already has achieved in bringing citizens of the country together and uniting them, which has been rare the years before. The Chandayaan-2 may have been launched with the mission of exploring the Moon, but it succeeded in uniting families across the nation. Landing on the Moon or not, the Chandrayaan-2 was nothing short of success.

– **Amesha Sangma**
ETRX B, VIT

Glimpses of Hunar, a student talent competition held annually at VSIT, by the Student Council

Sudoku: Did you know?

- In Japanese "Su" means a number, while "Doku" means only/single. So Sudoku means "only single digits".

- Originally it was invented by the Swiss Mathematician Leonhard Euler and reworked by the American Howard Garnes. Later on the game was popularized by the Japanese publisher Nikoli.

- There are about 5, 472,730,538 valid Sudoku puzzles and you'll need a whole lifetime to solve them all.

- Sudoku is a logical game and doesn't require any mathematics. Sometimes even the Sudoku puzzles come with pictures, letters or symbols instead of numbers.

- Sudoku became a world hit in 2005. When measuring its popularity in enigmatic world, it is the biggest phenomenon since Rubik's Cube in the '80s.

- Newspapers around the world embraced it immediately because people like to solve Sudoku on a daily basis, just like crosswords.

- By playing it regularly you can boost your concentration and focus, prevent or ease depression, dementia and even Alzheimer's disease according to some studies.