The Compendium

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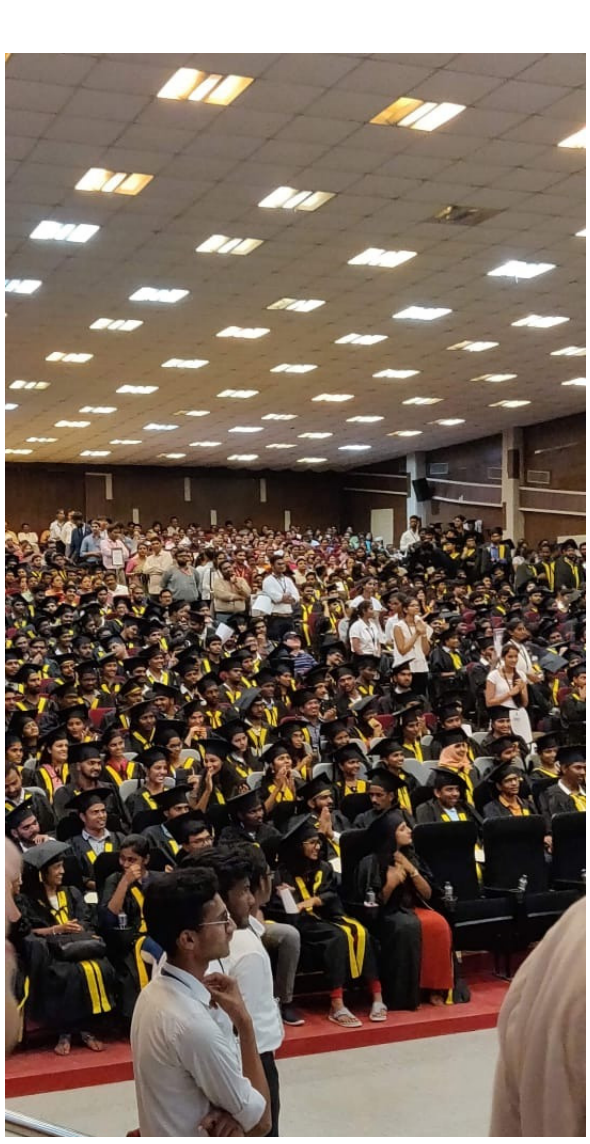
VOLUME 1 ***ISSUE 2*** ***SEPTEMBER 2019***

"Caps flew and the celebrations began"



On 31 August, Institute of Aeronautical Engineering held its 16th graduation ceremony for the Class of 2015, at Sangeet Auditorium. At this ceremony, the college conferred Sri. Nirankar Saxena, Dy. Secretary General, FICCI, New Delhi. The graduation ceremony saw a total of 1200 students, which included students who got placed in various organizations and who started studying further, receiving their awards from the chief guest. The event was successfully organized by Dr. K Srinivasa Reddy, professor and head, IT department. The class of 2015 is special as they are the last JNTU-H batch and the college achieved its autonomy in 2016. The reward for all the times of late-night studies, lack of sleep and sacrifice of enjoyment is here. The management of the college was so happy to see their own trainees achieving heights in their respective fields. Hearty congratulations from the college to start a new chapter in their lives gave the students a lot of motivation and energy.

Good Words For the Day:

Be careful what you water your dreams with. Water them with worry and fear and you will produce weeds that choke the life from your dream. Water them with optimism and solutions and you will cultivate success. Always be on the lookout for ways to nurture your dream.

IARE PLACEMENTS 2019

CAPGEMINI
Placed: 161
Date: 12 Aug, 2019
Salary PA: 3,80,000/-

LARSEN AND TOUBRO INFOTECH - LEVEL 1
Placed: 26
Date: 20 Aug, 2019
Salary PA: 3,50,000/-

LARSEN AND TOUBRO INFOTECH - LEVEL 2
Placed: 09
Date: 20 Aug, 2019
Salary PA: 5,00,000/-

TATA CONSULTANCY SERVICES - (DIGITAL)
Placed: 07
Date: 12 Jul, 2019
Salary PA: 7,00,000/-

TATA CONSULTANCY SERVICES - (CODEVITA / NQT)
Placed: 77
Date: 12 Jul, 2019
Salary PA: 3,50,000/-

INFOSYS - (INFYTQ / HACKWITHINFY)
Placed: 11
Date: 13 Aug, 2019
Salary PA: 5,00,000/-

EPAM SYSTEMS
Placed: 01
Date: 22 July, 2019
Salary PA: 6,00,000/-

"Guinness World Record by Architectect Vijay at IARE!"

"World's Largest Drawing (Civil Drawing) of Hyderabad" quoted by Canter Cadd India Private Limited MD Rahul. Architectect Vijay set a Guinness-World Record by drawing a picture of 3,600 square feet in 18 hours. This event was hosted by Institute of Aeronautical Engineering on the ocassion of Engineers Day. Mr.Vijay is a Web Developer and Designer of CANTER CADD, which is India's leading CAD training provider. The drawing started at 8 am on 14th of September, Saturday. After 18 hours of continuous hard work and effort, the drawing was successfully completed at 2am on 15th of September.

"IARE football team win the Championship of Vardhaman Tournament"

IARE football team won the Championship of Vardhaman Tournament. The tournament was conducted by Vardhaman College of Engineering. The team led by Sujit Reddy (Captian) won with a score of 7-2 against TKRCET in the first round on 19th of September 2019. 5 of the 7 goals were scored by Pruthvi, 1 by Akhilash and 1 by Koushik. The next day, on 20th of September, they played against MREM and won with a score of 5-1. 2 goals were scored by viraj, 1 by Pruthvi,1 by Taha Husain and 1 by Kalidas. On 21st of September, the team won the semi-finals against Vardhaman Home Team with a score of 1-0 scored by Chaitanya and proceeded to win the championship in the final round defeating the team of GITAM in penalities.

IARE PLACEMENTS 2019

NTT DATA
Placed: 04
Date: 31 Aug, 2019
Salary PA: 3,50,000/-

OPTUM
Placed: 12
Date: 07 Sept, 2019
Salary PA: 5,00,000/-

MPHASIS
Placed: 27
Date: 11 Sept, 2019
Salary PA: 3,25,000/-

TEK SYSTEMS
Placed: 01
Date: 05 Sept, 2019
Salary PA: 6,00,000/-

HEXAWARE
Placed: 06
Date: 18 Sept, 2019
Salary PA: 3,00,000/-

VALUELABS
Placed: 08
Date: 17 Sept, 2019
Salary PA: 4,50,000/-

NETELIXIR
Placed: 10
Date: 19 Sept, 2019
Salary PA: 3,20,000/-

"FPL WINNERS"

The cricket team of Institute of Aeronatutical Engineering won the tournament of Friends Premier League on 20th of September 2019.

IARE Welcomes Freshers of 2019

What's better than a fresher's party to welcome the fresh blood in the college? The Institute of Aeronautical Engineering celebrated its fresher's party on the 23rd of August, 2019. There was a different level of enthusiasm seen in the students who enjoyed their day thoroughly. There was music, dance, drama, and not to forget, the barcode registrations for their beloved juniors in the department of CSE. A fantastic show was put up by the departments of Aero, Mech, Civil, ECE, CSE, EEE and IT. The Chairman,Sri M. Rajasekhar Reddy graced the occasion with his presence, motivated the students and shook a leg with the young blood. The day ended with a lot of memories which would be carried forward and remembered as the good times!

"Sententia MUN Off To A Great Start"

SENTENTIA MUN 1.0 kicked off as elegantly as it could be. The conference, hosted by Institute of Aeronautical Engineering and organized by the students' club - SENTENTIA MUN Society, set the level higher than ever before. The conference was inaugurated in the gracious presence of Upasana Kamineni and Umapathi Kamineni Garu.

The aim of the conference was to educate young minds on world diplomacy, research, cultural exchange and problem solving. A total of 300 delegates participated to indulge themselves in such a festive of debates.

The first day saw Delegates, executive board members, the organising committee members in fancy formals as the day's dress code was "complete formals". One could especially see the Secretariat members twining in their black formals. The committee sessions started at 10.30 am and the Delegates were briefed up about the Rules of Procedure. The debates were spot on right after. The first day ended at 6:00 pm when all the committee sessions were dispersed and the secretariat called it a day. The conference on the second day saw vibrant colours and patterns as "traditional" was the attire for the Day. The committee sessions shot right away and hungry debaters spoke fiercely. The third day saw people mingling more and more. One could see a semi-formal attire everywhere. The committees started drafting their resolutions this day. The international Press took interviews with various delegates in all committee rooms.

In addition to all what was happening in the committee sessions, the college's ground saw a number of stalls. Students and delegates enjoyed visiting these stalls. The stall were set up by various companies who agreed to become a sponsor/partner with SENTENTIA MUN. Some of them are were Royal Enfield, Benneli, Lassi Bistro, IBS and Monster Energy drink.

SENTENTIA MUN also sponsored for the participation of two branches of ZPHS schools by accepting 30 students each without a Delegat fee. Students of class 8th, 9th and 10th actively participated in the discussions. Their passion is truly inspiring. Akhila from IT -4, Anusha from IT-3, Rohith from ECE-3 Umair from Mech-2, and Abhishek from Mech-2 visited the schools and trained them for the MUN Conference.

The conference was a success. The Secretariat members and the Organising Committee took a sigh of relief when they received a constructive feedback. The conference was a success.

"The Evolution of Cloud Computing and its Contribution with Big Data Analytics" - IEEE publication

AUTHOR: D. Nikhil, 16951A1221
Under the Guidance of: B. Dhanalaxmi, Assistant Professor and K. Srinivasa Reddy, Head, IT Department.
This paper was presented at International Conference on Intelligent Computing and Applications [ICIDCA 2019] organized by RVS College of Engineering and Technology, that was held during October 17-18, 2019.

ABSTRACT:
Big Data Analytics is known as the process which involves the specification of a large amount of data to uncover or extract the information such as the hidden data. This allows the user or developer to utilize the large chunk or data in order to extract the correlations and patterns which may be present inside the large unstructured chunk of data. Cloud Computing, known as the phenomenon which involves mass storage of data and information among a certain entity which hosts no hardware, i.e. stored in a imaginary circumstance termed as 'cloud', has deemed beneficial to the Technology surrounding us and enabled an immense advantage when it comes to artificial storage. Over the years, there have been various technological improvements and studies surrounding this phenomenon in which this Technology is deemed to be present among almost every hardware component in the near future.

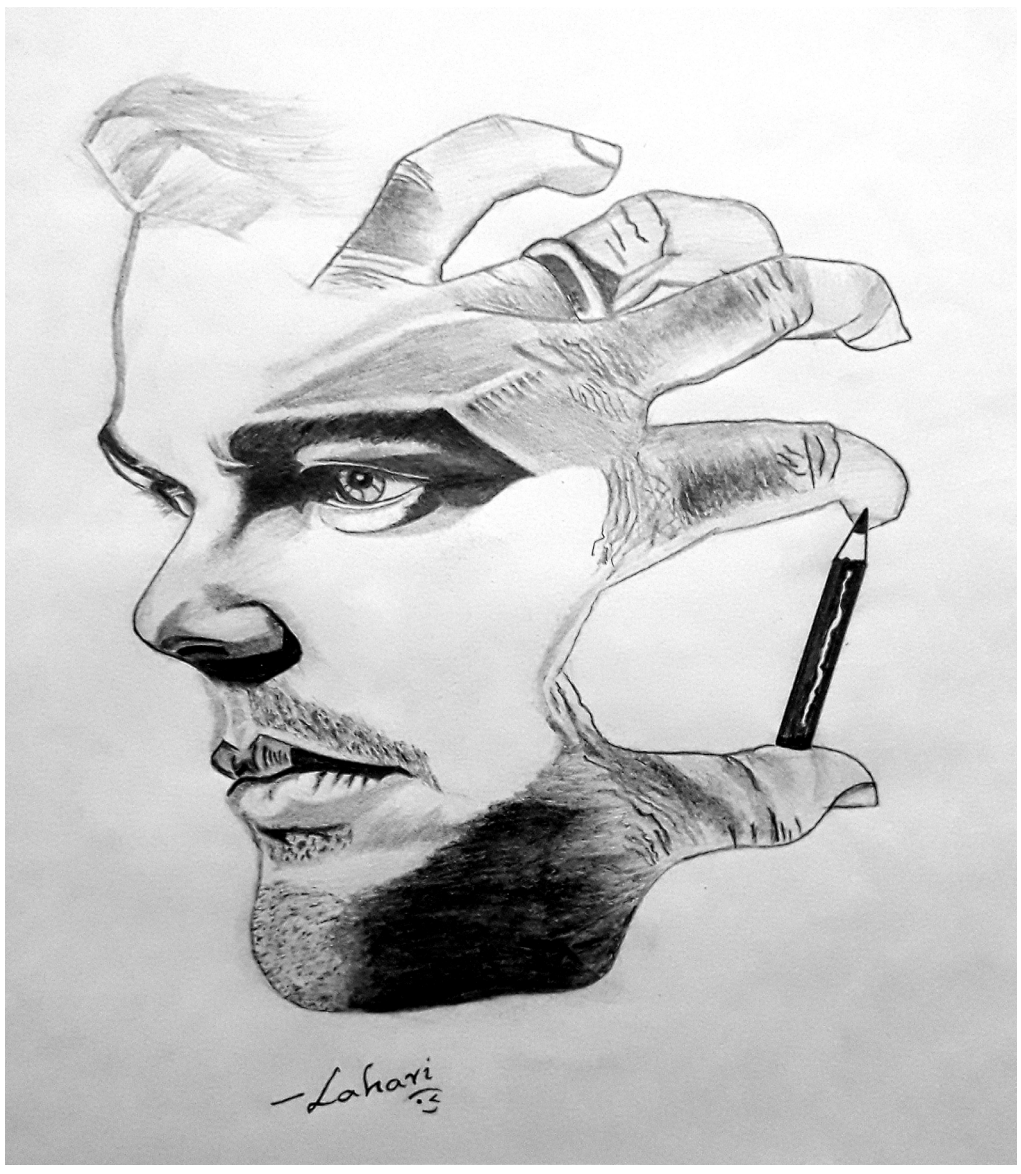
"8th International Conference on Computing, Communication and Sensor Network"

IARE presents 8th International Conference on Computing, Communication and Sensor Network, co-presented by Applied Computer Technology, Kolkata. The Conference is going to be held on 19th and 20th of October 2019. Building information and research skills is extremely crucial to our success in the 'real world'. Every college student must have research skills to hone their ability to critical thinking, comprehension, research strategies and presentation skills. For any research paper that one wants to publish, they must be aware of citing sources, paraphrasing information, plagiarism checks, and generating useful search terms. Research skills also include being able to evaluate validity from different points of views, to identify various arguments or cases to our research topic, scrutinize any weaknesses in arguments or pieces of evidence, supporting an argument with structured reasoning, and the ability to think objectively and critically.

TALENTS

Adithya Vanga, Aero - 2B

V. Navya, ECE - 2B



Lahari Talacheeru, CSE - 2C

Till Kingdom Come

The light from the sky filled the room
The Sun's last rays of light
Fell upon his doom
He put up the greatest fight.

As his dusk arrived, he cried in pain
His eyes, looking for signs of damage

He does so, only in vain

The men who hurt him, beyond savage.

Blood fell on the stone tiles
His shattered armour, by his side
Bodies lay in bloody piles
Wrapped in torn animal hide.

Clutching in pain, his neck
Knowing he had lived his last winter
His heart and mind, a wreck
The greatest man-hunter.

Carried across the city road
Shield and sword, sharp and broad
He kept fighting till kingdom come
He kept fighting till kingdom come.

- Akash Meka, CSE - 1A

Sirichandana Sukkala, CSE - 1D

Sai Sravani, Civil - 3B

Department of Civil

Workshop on Building Information Modelling was conducted on 4th September in Sangeet Auditorium by Tritech Design Team. All civil faculties along with students of 2nd, 3rd, and 4th years attended this workshop. Purpose of the event was to enhance the knowledge of students on Building Information Modelling.

Overview on Rivet Architecture was conducted on 21st of September in Sangeet Auditorium by Design Labs. All civil faculties along with students of 2nd,3rd and 4th years attended this event. Purpose of the event was to elaborate the importance and usage of the software- Rivet Architecture as it is one of the most important softwares for civil engineers. This software is used for designing buildings. Event was followed by a workshop where students worked on the software.

On 21st of August 2019, Expert Lecture on Payment Materials & Characterisation by Dr. R. Srinivasa Kumar from OU took place. On 7th of September 2019, Expert lecture on Remote Sensing took place by Dr. J. Sai Indra Nath, Scientist from NRSC.

Department of Electronics and Communication Engineering

On 9th of August 2019, Guest lecture was conducted on Advanced CMOS VLSI by Dr . Satish Maheswaran , Assistant Professor , NIT Warangal. 85 students participated in this lecture.

On 10th of August 2019, Expert talk was conducted on Bridging the Gap between Academic and Industry by Ms.Sesha Sai Sree, Component Design Engineer, Intel Bangalore. 75 students participated in this lecture. A Five day workshop was conducted from 23rd of September to 27th of September on Machine Learning.

Department of Electrical and Electronics Engineering

Guest Lecture on Solar PV training program by Mr. N .Ramchander, Cheif Solar Lab, Surabhi Institute of renewable energy was conducted on 31st of July 2019. 100 students participated in the lecture.

Entrepreneurship Talk on “Minds of masses for Sustainable development” by Mr. P. Ganesham, President, Pallesrujana Organisation, Secunderabad was conducted on 13th of August 2019.

Expert Talk on Electromagnetic fields by Dr. E. Vidya Sagar, Professor and Vice Principal, Osmania University College of Engineering, Hyderabad was conducted on 19th of August 2019. 100 students participated in this.

Iconic Talk on Innovations and Business Development by Ms. Santa Thoutam, Vice President, Corporate Innovation and Business Development, T-Hub, Hyderabad was conducted on 18th September 2019. A total of 100 students participated.

A Three day workshop on IOT using Raspberry Pi was conducted on 21st, 22nd and 23rd of September by Mr. Madhu Parvathaneni, Founder & CSO, Orange Research Labs, Hyderabad.

Department of Aeronautical Engineering

On 22 July 2019, Dr. A. K. Sarkar, scientist from DRDL attended Knowledge Round Table (a group discussion around current technologies in aero space demand) seminar conducted by SAE club.

On 24 July 2019, Guest lecture was organised by Captain Jain pilot and trainer (Indian Air Force Academy) about Sukhoi-30. On 11-14 July 2019, Four of the department professors were invited to attend the conference Abdul Kalam from 19th to 21st of July conducted by IT-Madras. A team of 14 students, along with faculty attended SAE (Society of Automotive Engineering) India Aero Design Challenge. 2 teams attended the competition and won 3 Awards - Best Design, Best Innovation, and Best Technical Presentation.

Workshop was conducted on 30th and 31 July 2019 - Astra, training of RC Modeling. Related innovative design was proposed and fabricated with support of department and it is successfully tested with Pluz-Jet engine with an indurance of 10 meters.

Department of Information Technology

A 2-day workshop conducted on 6th and 7th of September on Business Analytics for 4th year students of Information Technology Department. The workshop was mainly targeted on Machine Learning and Business Applications.

A workshop on Data Science was conducted for the 3rd year students of IT department by Sravan Kumar Dosada from 13th to 19th of August.

A 5-day workshop was conducted on 22nd, 23rd, 26th, 27th and 28th of August for 3rd year students of IT Department on Data Science and Big Data Analytics. The workshop was conducted by Director of Reachout Analytics, K Venkata Rao, Vice President, Data Science.

Conveyor for the workshops was Dr. K Srinivasa Reddy, HoD, IT and the coordinator was Mrs. B Dhanalaxmi

"In Conversation With Dr. Shobha Rani"

Reporter: Good morning mam, we are happy to have you for the interview. To start off with, can we know about your Education, ma'am?
Ma'am: I have completed my Bachelors in JNTU, Hyderabad in the Department of Electrical Engineering. I persuaded my Masters on Electrical Power Systems in JNTU, Anantapur. I completed my PhD in Sri Venkateshwara University, Tirupati.

Reporter: Can we know about your professional career?
Ma'am: I have 6 years of Industrial experience as an Electrical Engineer. After that, I worked in various prestigious engineering colleges such as Sri Vidya Niketan Engineering College, Tirupati (Head of the Department) for 7 years, Vardhaman College of Engineering, Hyderabad (Head of the Department) for 9 years and now currently working in Institute of Aeronautical Engineering as Head of Examination Department and Dean International Affairs.

Reporter: You are have a wonderful career mam. But, did you ever have to sacrifice your family time?
Ma'am: Oh yes, but my family is very supportive and is like a backbone to my career. Actually, they are the ones who encouraged me to persuade Masters. My Husband (Dr. L V N Prasad Sir) motivated me to persuade PhD to enter into teaching field. I have acquired 20 years of teaching experience in my core department of Electronics.

Reporter: Can you explain your role as the head of the examination branch?
Ma'am: As Head of the Examination Branch, I have grounded few fundamental rules which students must inculcate to be punctual. I made it mandatory that the students should be 10 min early before the beginning of the exam. I make sure the question papers are in such a manner that even average students can easily qualify in the exam by learning basic concepts of the subject. I ensure that the question paper consists equal weightage of both theoretical as well as problematic part and it would be in a moderate level. I make sure that the entire examination system is transparent. I also made it compulsory that the students' answer sheets are put online so that the students can view their answers, correct their mistakes, analyze their errors, and also for the sake of parents so as to keep them posted about the performance of their wards.

Reporter: Can you explain your role as Dean of International Affairs?
Ma'am: As the Dean of International Affairs, I visited various Universities abroad like NTA Singapore and many Universities in Malaysia, Thailand, US and played a key role to collaborate with them to provide students of our college with internships. For the welfare of student and faculty exchange program, we signed numerous MOU's with Universities which even IIIT colleges find it difficult to get.

Reporter: Thank you for these opportunities ma'am. To end with, do you have any message for our students?
Ma'am: As the Controller of Examinations, I would say that a student should attain a minimum of 7.5 CGPA without any backlogs so that they can further pursue internships and get placed in good companies. I want every student to concentrate on their internal exams as they play a key role for obtaining good SGPA in that semester. We also provide various opportunities like remedial exams, summer semesters, etc. for the students in order to improve their marks. I want the students to use these facilities wisely. Students should work hard and get qualified to do internships in prestigious International Institutes with which the college has collaborated. I want the number of students opting for internships to increase exponentially in coming years.

- Reported by Jonas Edward and Vasmi.

"Research and Development"

EFFECTIVE SOCIAL INTELLIGENT SYSTEM FOR BIG DATA SENTIMENT ANALYISIS

Dr. K. Rajendra Prasad from the Department of CSE is the Principal Investigator of this project. This project is funded with 37.00 lakhs by Department of Science & Technology (DST), New Delhi.

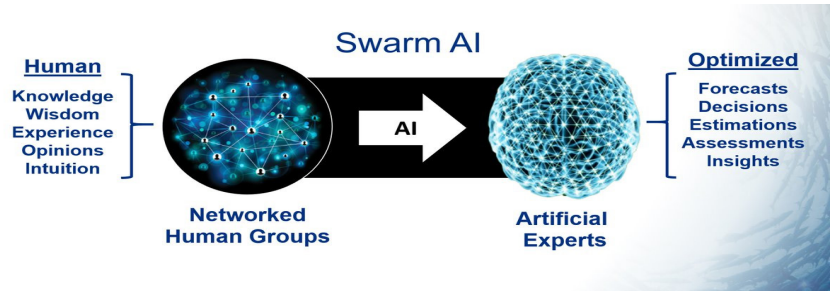
The objective of this project is to develop intelligent social computing system for efficient analysis., to determine visual assessment of clusters for better Big Data Analytucs, to establish the distributed computing model for faster mining results, to connect the social media and E-commerce websites for retrieving the Big-Data and performing Big Data Clustering in a distrbuted environment, to derive the optimized Big Data clustering results through Visual Cluster, and to design a distributed cluster computing system for delivering both cluster tendency and clustering results for social data. These results are useful to people for making best practices in social media.

COGNITIVE COMPUTING AND ARTIFICAIL INTELLIGENCE IN THE AGE OF DATA AND ANALYTICS

Ms. B. Dhanalaxmi from the Department of IT is the Principal Investigator of this programme. It has been funded with an amount of 9 lakhs by Department of Science & Technology (DST), New Delhi in February 2019.

The objective of this ICPS scheme by DTS is to extract the valuable information for use in strategic decision making, product development, trend analysis and forecasting. This programme will bring together the work of researchers who are interested in advancing the state-of-the-art not merely in their field, but are also willing to engage in technically directed discussions on what is missing currently from their work that is needed to turn it into a deployed service that can gainfully interact with humans and the world at large. It will also expect to address the challenges involved in taking a stand-alone artificial intelligence. It will provide the insights of Cognitive Computing with the goal of developing more accurate models of how the human brain/mind senses, reasons, and responds to stimulus based on computing platforms and algorithms. The expected outcome of the programme includes Cognitive Computing that will enable new business models and change the way entire work of industries. While some processes may be refined, others will need to be reinvented, and a few built from scratch. New skills and training will be required, such as developing the ability to design and frame appropriate challenges for cognitive systems and provide opportunities to further widen their knowledge and to pursue research studies, and give an introduction to new methods and innovations in cognitive computing and enlighten them so that the participants can in turn develop their own innovative methods.

"SWARM AI"



The world is adapting new technologies day by day in the from of AI, ML, IOT and Quantum computing. Every stream is a wonder in itself. These technologies are making the world a much shorter place to live. They are connecting people, predicting weather conditions, used in detecting tumors, and doing much more with data. They are also defeating humans in many games and are used in places where humans can't reach. These things are the buzz words and many advancements are happening in these feilds daily. But have we ever imagined of developing an AI by looking at nature?

Nature always evolves in patterns. Whereever we look, we find patterns. Living beings also follow patterns. Patterns is nature and nature is full of patterns. So, what is swarm AI? The word itself is quite tricky. Living beings like ants, birds, bees and some kinds of fish, - all of these developed methods to amplify their intelligence by working in groups. They all work by thinking together in systems. They are more smarter when they are together than alone. They all form a system what biologists call as swarm intelligence. They form a system with feedback loops when they are together. Individually these species have very tiny brains but they are most efficient as a group. For example, in bee colonies, thousands of bees work together to build their home and store honey and if we deeply observe, they find the most optimised spaces for their bee hives around which water, trees and flowers are available. A research says they find optimised spaces 80% of the time, but how do they do it? How do they know which place is best for their hives? This is what swarm intelligence is. Simply put, swarm intelligence is a brain of brains which combines knowledge, wisdom, intuition of thousands of brains which converges to an optimised solution.

So what if we use that technique in AI systems? And here comes the swarm AI. By swam AI we can build robots that can cooperate with each other to build some sturctures. We can use swarm drones that communicate within themselves and decide where to fly and what pattern to form. We can use nano swarm bots in medical applications. We can use swarm intelligence in driver less cars and in many more areas where collective intelligence is needed. It opens new domains of technology and applications in the feild of engineering and can change the face of human era. Even though we haven't created an AI that matches with any small living being intelligence, a collective work can give us wonderful outputs.

As humans, we should evolve as a species, and our evolution is connected with the advancement of science and technology now. But anything we develop is already present in the nature. Nature hides answers from us until we attain that maturity.

- Abhijith Tej, Editor

"ASTEROIDS AND THE EARTH"

"Wouldn't worry about this particular one, but a big rock will hit Earth eventually and we currently have no defence" is the tweet by Elon Musk, Founder and CEO of Tesla and SpaceX ,while replying to a post on "COLOSSAL GOD OF CHAOS ROCK"(officially known as Apophis) by Joe Rogan which mentioned NASA's intent to study and eventually take action against this monster rock which might impact our Earth.

Asteroids are hitting the Earth all the time. Everyday space bombards us with about 100 tonnes of space dust and sand. Car size asteroids make it to the Earth once a year, but they burn up in the mesosphere, never reaching the Earth's Surface. But once every million years a giant asteroid about 10km in length might hit the Earth surface, like the one which took away dinosaurs from this planet. But these happen once in a million years, so there's no need to worry. Cricket ground sized asteroids are the ones to worry about, as they cause damage at impact and occur once every 2,000 years. We have not performed any defence to such encounters in the past. This has become an additional topic for the scientists to worry about apart from Global Warming.

In 2013, A meteor (def: a small asteroid which reaches Earth atmosphere crossing the mesosphere) disintegrated few kilometres above Earth surface creating a bright flash and a cloud of dust and gas leading to around 1,500 people being injured and causing damage for about 7,200 buildings across six cities in Russia. This happened in a less densely populated region of Russia. Imagine this happening in highly populated cities like Hyderabad or New York. Just imagine a cricket ground sized rock flying across your city and wiping out whatever comes in its way. The damage would cost billions, causalities would be in millions and death toll would be in thousands.

Scientists have come up with strategies that could save us from these monstrous rocks. The latest strategies to avoid such collisions include nuking the asteroid, Kinetic Impact with another spacecraft, Asteroid gravity tractor, diverting the asteroid using gravitational techniques, to name a few. These techinques are still in either planning or development stages and are far more expensive than regular space missions as it involves high precision and accuracy and sheer effort.

Hence it has become a necessity for all space agencies across the world to work on this aspect and come with some innovative ideas to avoid such catastrophes. All we can do right now is hope that a joint research takes place among these space agencies and protect mankind from the asteroids.

- Abhinay Desabhatla, Editor

"BATTERY-FREE SENSOR FOR UNDERWATER EXPLORATION"

To investigate the vastly unexplored oceans, researchers aim to build an underwater "internet of things." But, how to supply constant power to source of sensors designed to stay for long durations in the ocean's deep? MIT researchers have an answer; a battery-free underwater communication system that uses near-zero power to transmit sensor data. The system could be used to monitor sea temperatures, to study climate change and track marine life over long periods and even sample waters on distant planets.

Piezo-Acoustic Backscatter (PAB), the first technology that enables backscatter networking in underwater environments makes use of two key phenomena. One called the "piezoelectric effect", the other is "backscatter," a communication technique commonly used for RFID tags that transmits data by reflecting modulated wireless signals off a tag and back to a receiver. The system was able to transmit 3 kilobytes per second of accurate data from two sensors simultaneously at a distance of 10 meters between sensor and receiver.

We can't use Wi-Fi or Bluetooth signals and don't want to put batteries all over the ocean because that raises issues with pollution. That led Adib (Developer of PAB) to piezoelectric materials. They produce a small voltage in response to vibrations. But that effect is also reversible.They're often used to detect sunken vessels, fish, and other underwater objects.

Another interesting application is monitoring the brine pools which is difficult in a long term. "We could sense what's happening down there, without needing to keep hauling sensors up when their batteries die," Adib says.
In further development the researchers aim to demonstrate that the system can work at farther distances and communicate with more sensors simultaneously. They're also hoping to test if the system can transmit sound and low-resolution images. An interesting future study might involve testing the battery-free sensor at different temperatures to simulate actual usage in very cold or very hot conditions.

- Sukesh, Editor

"Is Globalization Fair?"

Globalization is the process in which people, ideas and goods spread throughout the world, spurring more interaction and integration between the world's cultures, governments, and economies. The new global economy of the 21st Century has transformed the economic, social, educational, and political landscape in a profound and indelible manner. Never before in human history has the pace of structural change been more pervasive, rapid, and global in its context. The new economy is composed of a trilogy of interactive forces that include Globalization, Trade Liberalization, and the Information Technology and Communications revolution. Globalization has melted national borders, free trade has enhanced economic integration, and the information and communications revolution had made geography and time irrelevant. Furthermore, the new economy is built on a culture of innovation. Indeed, the signature mark of the new global economy is new ideas, new technologies, and new initiatives. Globalization and economic liberalization over the last few decades have integrated developing countries into the world economy, but now every integration is becoming a threat as developing countries are shackled by the knock-on effects of the rich world's troubles.

As a consequence of increased global integration, growth in developing countries relies more than ever on access to international markets. That access is needed, not only to export products but also to import food and other requirements. Interdependence nowadays, however asymmetric, is a two-way street, but with very different traffic flows. As earlier reported by the website http://www.ipsnews.net, the decline of public-sector research and agricultural-extension efforts, stronger intellectual-property claims and greater reliance on privately owned technologies have ominous implications, especially for the poor. The same is true for affordable access to essential medicines, on which progress remains modest.

An international survey in recent years found that such medicines were available in less than half of the economically backward countries which need them the most. Meanwhile, median prices were almost three times the international reference prices in the public sector, and over six times as much in the private sector! Thus, the recent protracted stagnation in many rich countries, fiscal austerity measures, growing protectionism and other recent developments have made things worse for international development cooperation.

- Mokshitha, Editor

"Intergovernmental Panel on Climate Change"

A rapid change in climatic conditions can be observed and it is believed to be driven by human activities. The pollutants like excess carbon dioxide and other emissions released in the atmosphere along with greenhouse gases trap heat from the sun making earth warmer by 1.62 degrees Fahrenheit since the late 19th century. The effects have been seen in various forms; rise in global temperature, warming oceans, shrinking ice sheets, decreased snow cover, glacial retreat, sea level rise, declining arctic sea ice, and ocean acidification, which in turn has lead to extreme weather conditions. Warmer temperatures are not only harmful for humans but are threatening to all living species. The fact lies that it is all because of fossil fuel pollution from vehicles and industries. The so called 'civilization' has been slow poisoning us without anyone realizing it before it got too late. But better late than never, this global problem needs a global solution. Everyone is responsible for the damage that has been done and everyone should do their bit to repair for the loss. It all starts from one letter, 'I'. Even if one of us starts with 'I will bring a change,' it'll go on to become a movement for 'we will bring a change'. Be the cause for good, do your bit, because our mother Earth is crying for help.

- Moulsree Srivastava, Sub-Editor

"Hong Kong protests for anti-extradition bill"

Political unrest and mass protests against the extradition bill started around March of 2019, leading up to mass protests in June 2019. Here's an insight into what protesters in Hong Kong are confronting.

The large-scale protests occurring in Hong Kong from June 2019, are due to the introduction of the Fugitive Offenders amendment bill, which includes a controversial extradition bill. Residents of Hong Kong believe that the execution of this bill might annihilate the remaining freedom in the semi-autonomous state.

Hong Kong or the Hong Kong Special Administrative Region of the People's Republic of China is a special administrative region. Hong Kong, which was previously a British Colony, was returned to mainland China in 1997 under the policy of "one country, two systems". This policy ensured that Hong Kong was given a special administrative power, and it helped in preserving its autonomy in civil services, independent courts, freewheeling press. So technically speaking, Hong Kong is a part of China, but with its own administration. This autonomy, however, expires in 2047. The Basic Law was however dissolved due to the Communist Party in China led by President Xi Jinping.

So what is the extradition bill all about and why did it happen? Hong Kong first proposed the changes in February, citing the case of a local man named Chan Tong-Kai who was wanted for the suspected murder of his girlfriend while in Taiwan. Officials said he can't be sent back to Taiwan for trial because there was no formal extradition agreement between the two territories. This led to the amendment of the Extradition Bill.

The bill would allow Hong Kong to detain and transfer people wanted in countries and territories with which it has no formal extradition agreements, including Taiwan and the Chinese mainland. The law would possibly allow anyone in Hong Kong to be picked up and detained in China, a country where the judges follow the orders of the Communist Party. They fear that the new law would target not just criminals but political activists as well. The mainland authorities are typically not permitted to operate here, per the Basic Law in order to restore autonomy.

The Sunday protests with half a million marchers, covering more than a mile have been the largest protests since 2003. Opposition to the extradition bill has become even higher now, says a recent poll by the University of Hong Kong. However, one must also note that 43 out of 70 seats in the Hong Kong legislature are mainland China-nominated candidatures. So it is more than likely for the bill to pass if it came to a vote. The United Nations Human Rights body suggested on the occasion of Hong Kong's police overuse of weapons and advised authorities and the public to engage in an "open and inclusive" discussion.

- Bhavana Priya, Editor

"Is Globalization Fair?"

Globalization is the process in which people, ideas and goods spread throughout the world, spurring more interaction and integration between the world's cultures, governments, and economies. The new global economy of the 21st Century has transformed the economic, social, educational, and political landscape in a profound and indelible manner. Never before in human history has the pace of structural change been more pervasive, rapid, and global in its context. The new economy is composed of a trilogy of interactive forces that include Globalization, Trade Liberalization, and the Information Technology and Communications revolution. Globalization has melted national borders, free trade has enhanced economic integration, and the information and communications revolution had made geography and time irrelevant. Furthermore, the new economy is built on a culture of innovation. Indeed, the signature mark of the new global economy is new ideas, new technologies, and new initiatives. Globalization and economic liberalization over the last few decades have integrated developing countries into the world economy, but now every integration is becoming a threat as developing countries are shackled by the knock-on effects of the rich world's troubles.

As a consequence of increased global integration, growth in developing countries relies more than ever on access to international markets. That access is needed, not only to export products but also to import food and other requirements. Interdependence nowadays, however asymmetric, is a two-way street, but with very different traffic flows. As earlier reported by the website http://www.ipsnews.net, the decline of public-sector research and agricultural-extension efforts, stronger intellectual-property claims and greater reliance on privately owned technologies have ominous implications, especially for the poor. The same is true for affordable access to essential medicines, on which progress remains modest.

An international survey in recent years found that such medicines were available in less than half of the economically backward countries which need them the most. Meanwhile, median prices were almost three times the international reference prices in the public sector, and over six times as much in the private sector! Thus, the recent protracted stagnation in many rich countries, fiscal austerity measures, growing protectionism and other recent developments have made things worse for international development cooperation.

- Mokshitha, Editor

"Why does Donald Trump want to buy Greenland?"

Yes, Donald Trump wants to buy Greenland. But, why? President Trump shocked the world this week when he said he was serious about wanting to purchase Greenland from the government of Denmark. Greenland is an autonomous region of the Kingdom of Denmark, located between the Arctic and Atlantic oceans. Though physiographically a part of the continent of North America, it has been politically and culturally associated with Europe for more than a millennium. Leaders of Denmark and Greenland's own government made it clear that the world's largest island is not for sale. It is one of the least populated areas of the planet, with just over 56,000 people living in an area more than three times the size of Texas. It's not an easy place to call home as 80% of the island is covered in an ice sheet that can be up to 2 miles thick, and temperatures regularly drop below minus 20 degrees Fahrenheit during the dark winter months. Geologists have identified large deposits of rare-earth metals beneath Greenland's ice sheet, including one near the town of Narsaq that could hold as much as 11 million metric tons of the minerals. That would make it one of the largest rare-earth deposits outside of China.

Greenland may also have substantial offshore oil and gas resources, although those have not yet been developed. Any price tag on Greenland would depend on how desperately the United States wants it and why, and Trump's motivations are unclear. Greenland would be much more expensive to buy at a time of many other demands of public purse. In terms of energy and mineral resources, Greenland is a country that is only marginally developed and misses the basic infrastructure to get large-scale projects off the ground.There's very little exploratory work in Greenland. The conditions are harsh, with most of it covered in ice and snow.

It's hard to put a price tag or value on Greenland but, So many tons of ore would bring in so many millions of dollars! We'll have to wait and watch for now!

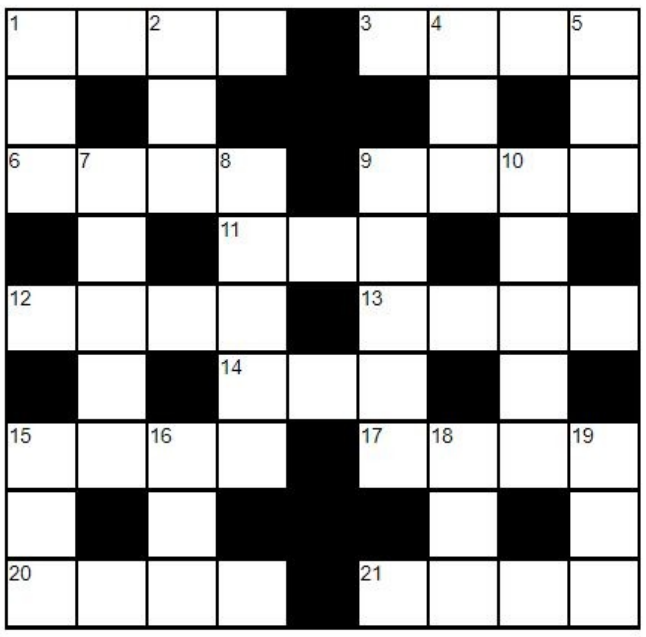
- Rohit D, Editor

"Revolt Motors"

Mobility is the most common thing in the life of each and every urban citizen. Our country underwent a lot of technological transformation in the past years. Whatever mode of transport we're using be it public or private, it is polluting the environment. Using electric vehicles is considered to be a practical solution but electric vehicles are unable to simulate the same power and performance when compared to vehicles with petrol and diesel. But a new company named Revolt Motors by Rahul Sharma (co-founder of Micromax) announced revolutionary electric motorcycles which can simulate the power to that of a 150cc motorcycle. They've launched 3 motorcycles named RV300, RV400 with base and premium variants. "Even students can buy these motorcycles without asking their parents for money," says Rahul Sharma. RV400 can go up to 150 km in the economy mode in a single charge which consumes 3 units of electricity which is less than 20 rupees. The bike has three modes Economy, Normal, Sport. The bike can travel at a maximum speed of 85km/hr and can give the mileage of 90 km/charge in the sport mode, claims Revolt Motors. Revolt Motors is selling these motorcycles in the form of plans named MRP (My Revolt Plan). RV300 is going to be sold in the plan of 2999/- per month for 3 years, RV400 base variant for 3499/- per month for 3 years and RV400 premium variant for 3999/- per month for 3 years. The company is including insurance, registration, and the whole service cost for three years.The company is also promising a free tyre replacement if the bike satisfies the minimum kilometer run eligibility criteria. They claim that the battery can run up to 1.5 lakh kilometers without any problem. The bike also features double disk brakes, digital instrument cluster, 3000w motor power, Geo fence, 4g connection, keyless entry, DDRL headlamps and a lot more. Revolt motorcycles are being manufactured in Manesar, India. The sales of motorcycles are being offered only in Delhi and Pune as of now and planning to expand the business to cities like Hyderabad, Mumbai and Chennai in a couple of months. They've received a massive amount of bookings due to which they're only delivering the bikes who have booked already and the rest are being delivered after October. It's a good start and proof that eco-friendly bikes' sales can be massively done if they offer us promising performance.

- Rahul Sattarapu, Sub-Editor

CROSSWORD



Across
1. Hand over
3. Army no-show
6. Unstraighten
9. Body cleanser
11. Baseball ref
12. Large barrel
13. Burn soother
14. Golf score
15. Catches sight of
17. Flies on a string
20. Capitol topper
21. Go in search of

Down
1. Chitchat
2. Moving vehicle
4. ___, what, where, when, why
5. Part of a mouth
7. Ahead of time
8. Refuse sites
9. Kind of plug
10. Approximate
15. Conclusion; finish
16. Shade tree
18. Frozen water
19. Large deer

BRAIN TEASERS

1. You have two light bulbs in a 100-story building. You want to find the floor at which the bulbs will break when dropped. Find the floor using the least number of drops.

2. The police found a murdered man in a car. The windows of the car were raised, the doors were locked, and the keys were inside, in the man's hands. The man was shot several times with a gun, but there were no holes anywhere on the car. How is this possible?

3. In front of you are three light switches. Only one does anything, and it turns on the light downstairs. From here you can't see the light, and it makes no sound. You must determine which switch operates the light, BUT you can only go check it once. How do you figure out which switch is for the light?

4. You are standing before two doors. One of the path leads to heaven and the other one leads to hell. There are two guardians, one by each door. You know one of them always tells the truth and the other always lies, but you don't know who is the honest one and who is the liar. You can only ask one question to one of them in order to find the way to heaven. What is the question?

5. There are 7 prisoners sitting in a circle. The warden has caps of 7 different colours (an infinite supply of each colour). The warden places a cap on each prisoner's head – he can chose to place any cap on any other's head. Each prisoner can see all caps but her/his own. The warden orders everybody to shout out the colour of their respective caps simultaneously. If any one is able to guess her/his colour correctly, he sets them free. Otherwise, he send them in a dungeon to rot and die. Is it possible to devise a scheme to guarantee that nobody dies?

SUDOKU

2	7						9	3
		6		3	9			
3						1	5	
	3		2		4			7
9	2	5				4		8
4			6					
							7	5
5					8			1
		4			3	9		

WORD SCRAMBLE

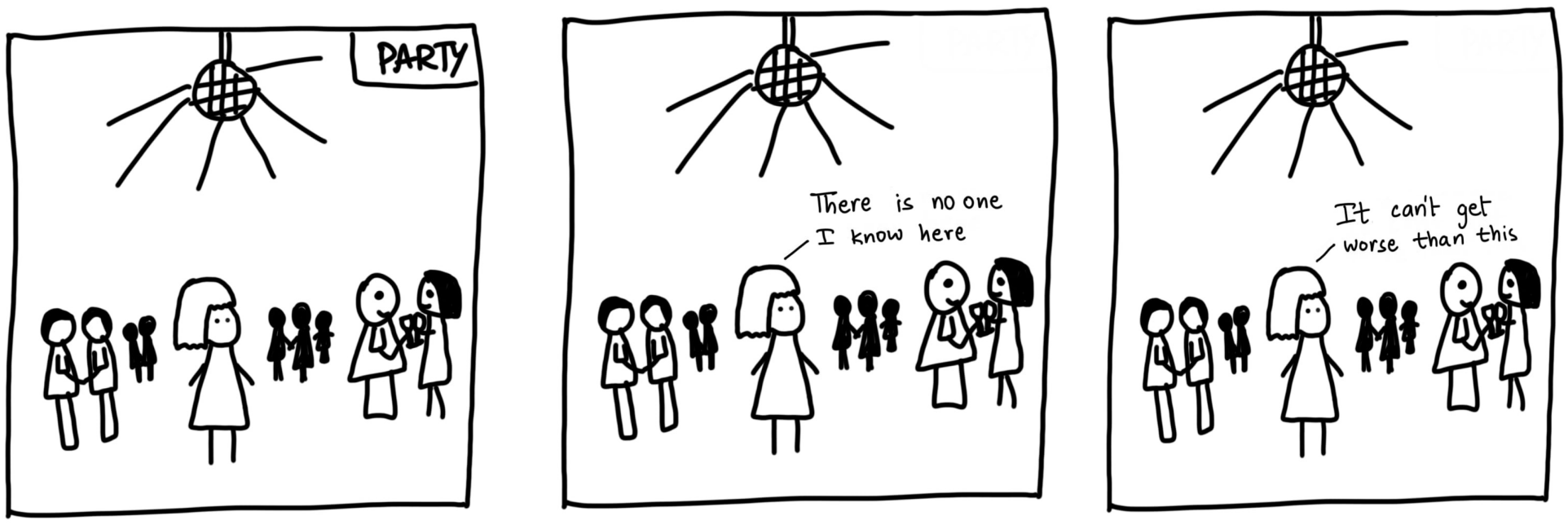
ICOAIPAPLTSN :
MRNPAGOGIMR :
PERCSOICMO :
ETRONIVNMNE :
ONVOTUILE :
ITRDSOAE :
LHAMMRSLWOA :
MDNOIAUH :
ENEENLIICTLG :
YROMATSNO :
RINOCOEMPH :
OSTYMMSP :
MSAIUOTPS :

HITORI

2	4	5	5	6	6	8	1
6	6	4	2	1	7	7	4
1	5	1	3	5	2	4	7
2	2	5	7	7	3	2	4
7	3	2	8	5	1	5	7
1	1	5	7	6	2	2	5
6	8	1	5	5	7	3	7
5	3	8	6	2	3	1	3

Send us your answers to iarethecompendium@gmail.com

COMIC STRIP



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