



Kongu Engineering College

(Autonomous)

Perundurai – 638 060



Department of Computer Science and Engineering



Scriptus

October 2020 Edition

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II CSE

Editor's Desk

Dear Readers,

As a budding editor, I would like to start by expressing my sincere gratitude to all of you. We as a team are elated in publishing the very first newsletter of this year (2020-21) **SCRIPTUS**. This newsletter represents the diverse spectrum of our department with exceptional content. We give you an exclusive sneak-peek of our department activities, achievements and events. Also, we present you our honourable achievers and meritorious hard workers. Our department's progress can also be seen with this newsletter.

Through this newsletter, we take you through the world of technology too. Gizmo-News, Tech-snippets and the world of technology is presented alongside Art and Poetry. Credits to the student folks for their awesome contribution. I was amazed by the number of articles and Art Works that flooded in for this newsletter. This shows the positive and creative energy of our faculty and student community. I am really glad that we have a platform to express our creativity. Let me close with a heartfelt thank you note to all the students and faculty members for aiding our team with proper guidance with motivation. Support from all of you has brought us here.

Hope this will be a new experience for you reading our newsletter.

Happy Reading Y'all.....



Abinash S
Joint Secretary
CSEA

HOD Desk



Dr. N. Shanthi

HOD, CSE

On behalf of the entire teaching faculty, I would like to express my sincere admiration for all incredible efforts by the members in bringing the first newsletter of this academic year. This newsletter will encompass all important events and activities of our department. Additionally, it also provides a platform to recognize and congratulate our department's achievers. Exploring hidden talents from students' side and providing remarkable insights from the world of technology has been the main motive behind this newsletter.

"Why hide your talent in the closet of complacency when you have greatness within you?"

-Robin Sharma

In this very competitive world, flaunting your skills becomes a necessity rather than will. We feel extremely privileged to provide a place where our students can present not just their artistic flair but also their technical quotient. Thereby I encourage all the students to actively participate and contribute to our very own newsletter. I hope this initiative builds team work and inspires young minds by providing a larger visibility and dimension to our department. *I hope this culture of releasing newsletter continues forever.*

I believe this newsletter will play a major role in presenting the activities that are happening in our department. It is the technical platform to seek hidden talents of students and establish their commitment, involvement and achievements in both Extra and Co-Curricular activities. This will also feed their thirst for knowledge with articles from realms of technology. I hope every student uses this platform as a key to express their views and to upgrade their expertise.

Wishing you all the best



Ms. C. Sagana

Assistant Professor (SRG)
CSE

Faculty Desk

Association Activities

Association Inauguration

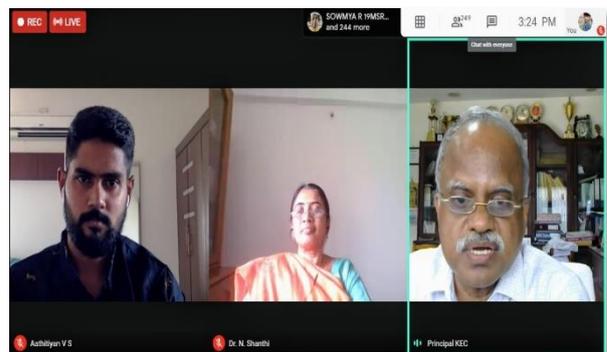
Every journey starts with a single step. The inaugural of the Computer Science and Engineering Association (CSEA) for the academic year 2020-21 was held on 14.09.2020. The inaugural was organized virtually through google meet, with our chief guest and alumnus, Mr. Aathitiyan V S, Founder and CEO, Cookd, Chennai. The commencement of the association with new office bearers was followed by an erudite lecture by our chief guest on the topic "There are no failures only lessons". He shared the experiences he gained as an entrepreneur. His speech emphasized on the thought, *Failure is an opportunity to learn at each and every step of our progress*. The inaugural session was also streamed in YouTube which made a lot of members gain knowledge and the spirit of learning.



Ranjani T
Secretary
CSEA



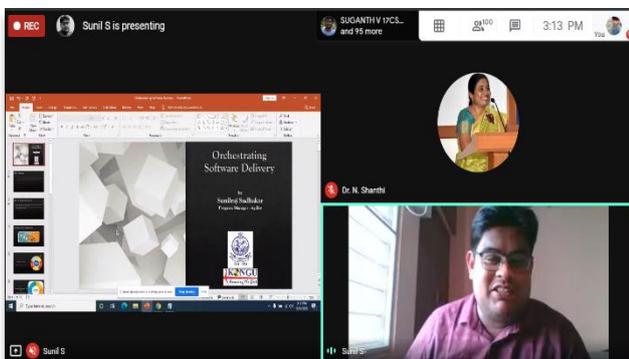
Office Bearers



Chief Guest

Guest Lecture (1st Oct '20)

"Technical skill is mastery of complexity, while creativity is mastery of simplicity". The Second event marked in our CSEA Calendar, the first guest lecture of Computer Science and Engineering Association (CSEA) for the academic year 2020-2021 was held on 1st October of 2020. The guest lecture event was virtually organized through google meet, with our Guest Mr. Sunilraj Sudhakar, Program Manager, Agility with glad. The Virtual Event began with warm welcome speech delivered by Mr. Suganth, Joint Secretary (CSEA) uttering the pride of our Guest lecturer. Then, our honourable Head of the department, Dr. N. Shanthi, delivered the presidential address which was inspiring as ever. It was followed by the enchanting lecture taken by our Guest on the topic "Orchestrating Software Delivery" and he solemnly concluded with a Question and Answer session with the students. His lecture highlighted the necessities of Software Industries; It's Lifecycle, and enlightened the ideas on Agile Modelling. The event wrapped up with a nice vote of thanks proclaimed by our very own Joint Secretary, Mr. Abinash (CSEA). The lecture was also streamed live on YouTube for the gain of Knowledge for our Students and to encourage the spirit of learning.



NDB Battery

A California-based company NDB has made a self-charging battery by trapping carbon-14 (C14) nuclear waste in artificial diamond-case. The company claims the battery can run for 28,000 years on a single charge. The US-based company says that the battery can be used in electric vehicles, mobile phones, laptops, tablets, drones, watches, cameras, health monitors and even sensors. It is also said to be extremely safe and tamper proof as it is coated with non-radioactive diamond which prevents radiation leaks. The battery works by generating electricity on its own from a shower of electrons as result of radioactive decay scattered and deposited in the artificial diamond-case. The company wants to further purify the nuclear waste to make the



battery even more powerful, and use it to make computer chips and nano devices. With the purer C14 nuclear waste, NDB plans to make Nano Diamond Battery. NDB estimates 34 million cubic meters of global nuclear waste will cost over \$100 billion to manage and dispose. And a lot of this waste is graphite that is one of the higher risk radioactive waste and one of the most expensive and problematic waste to store. The company says its battery can be used to power houses, and that any excess electricity generated can be sold to the grid. And, as the new battery need not be replaced, it can be installed in hard to reach places like pacemakers and implants, where regular change of battery is not possible.

Source: <https://medium.com/Oxmachina/the-nano-diamond-battery-ndb-too-good-to-be-true548066508c49>

Written by: Arul Prasath V (18CSR015) - III CSE A

One Touch Information

The wireless hardware named iBeacon that works using Bluetooth Low Energy (BLE) signals broadcasting a unique ID. In today's world people visiting India has been increased but meanwhile the middlemen's misguiding and misleading those visitors has also increased. The history of the place as per their needs just to grab money from visitors and also many of the visitors also face language problems. Hence this idea is to provide the user with a mobile app (iOS or Android are possible) where the user gets notification and information about some respective places when the tourist visits to the iBeacon range of the registered iBeacon. iBeacon is a new technology developed by Apple based on BLE (Bluetooth Low Energy) that has been built into its operating system and devices since 2013. It functions as an indoor positioning system that

allows businesses to advertise their presence to nearby smartphones. Businesses can also send messages to potential customers (such as special offers or goods) when they walk past an iBeacon. iBeacons are standalone devices that constantly send out a UUID (Universally Unique Identifier) using Bluetooth 4.0 Low Energy. We can turn any device that has a Bluetooth 4.0 LE radio onboard into an iBeacon device, therefore we can find them on: iPhones, Android phones, Small PCBs, USBs, MAC laptops, Apple TVs. BLE enables to communicate between a beacon module and a smartphone at proximity with saving electric power. The



beacon module emits radio waves based on BLE to broadcast an automatic triggering to smartphone users at proximity to push information with the help from an installed application. iBeacon is automatic information transferring for in-store advertising and couponing. It also enables to use as guide at historical places where the

beacon module is placed and Received Signal Strength Indicator (RSSI) measured by smartphones. A service by iBeacon is usually done by a single beacon module that corresponds to single automatic triggering for push-type information advertising regardless of any context of smartphone users approaching to the module.

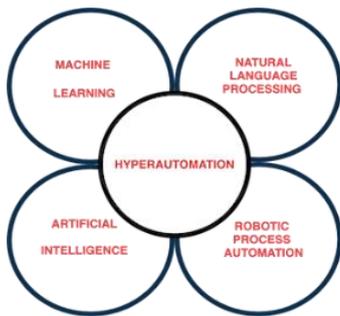
Source: <https://medium.com/0xmachina/the-nano-diamond-battery-ndb-too-good-to-be-true548066508c49>

Written by: Oviya D (19CSR130) - II CSE C

Hyper Automation - Breakthrough

Hyper-automation is one of the topmost technologies of 2020. **Automation** grew as an essential part of most industries, many businesses welcomed it with wide arms. Whereas, the employees were worried about losing their jobs. However, automation technologies like hyper-automation practices can help to make businesses smarter while implementing a people-centric approach.

Hyper-automation technology is a blend of advanced technologies like Machine learning and artificial intelligence, and Robotic process automation. Aims to augment human capabilities and automate every process.



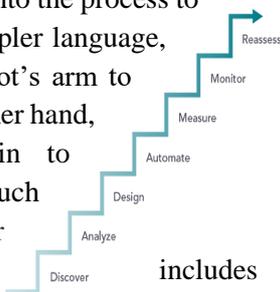
It also involves process mining, analytics, and other advanced tools.

Hyper-automation technology is an integration of sophisticated automation steps,

design, discover, analyze, automate, measure, monitor and reassess.

Hyper-automation differs from Automation, Automation is the optimization of a **simple task**. Whereas hyper-automation has an additional layer

of **robotic intelligence** integrated into the process to result in smarter solutions. In simpler language, automation makes use of the robot's arm to make the process faster. On the other hand, hyper-automation uses its brain to perform those tasks in a much optimized and smarter manner. This intelligent layer includes different allotropes of AI (Artificial Intelligence) like NLP (natural language processing), OCR (optical character recognition), and ML (machine learning). Together, these technologies expand the automation possibilities.



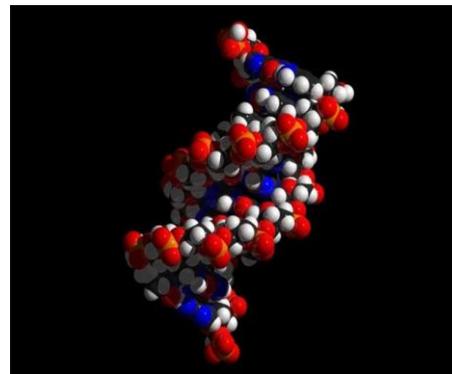
Hyper-automation technology not only highlights the integration of AI and RPA to overcome the limitations of each technology. But also opens new horizons **to solve complex problems**. Customers intending to digital optimization can benefit hugely from hyper-automation. For automation providers, it is a new source of development and investment. And for AI and tech providers, it is a new venue to deliver solutions. All in all, hyper-automation technology is an open window for progress and a much-optimized business world. Undoubtedly, **all the sectors** implementing technology can escalate their processes from hyper-automation be it banking, healthcare, insurance and retail. The combination of RPA and AI can help all the parties with LP. This simplifies customer intentions and extracts information more efficiently.

Source: <https://www.solvexia.com/blog/what-is-hyperautomation-a-complete-guide>

Written by: Gowri P (19CSR046), Harisudhan S (19CSR058) – II CSE A

Gene Activation using AI

Scientists have long known that human genes spring into action through instructions delivered by the precise order of our DNA, directed by the four different types of individual links, coded A, C, G and T. Nearly 25% of our genes are widely known to be transcribed by sequences called the "TATA box." With the help of AI, researchers at the University of California, San Diego, have identified a DNA activation code that's used at least as frequently as the TATA box in humans. Their discovery, which they termed the downstream core promoter region (DPR), could eventually be used to control gene activation in biotechnology and biomedical applications. Machine learning is used to generate predictive models for the DPR and the TATA box. A method termed HARPE (high-throughput analysis of randomized promoter elements) is developed to create hundreds of thousands of DPR (or TATA box) variants, each with known transcriptional strength. Then, the HARPE data is analyzed by support vector regression (SVR) to provide comprehensive models for the sequence motifs, and found that the SVR-based approach is more effective than a consensus-based method for predicting transcriptional activity. These results show that the DPR is a functionally important core promoter element that is widely used in human promoters.

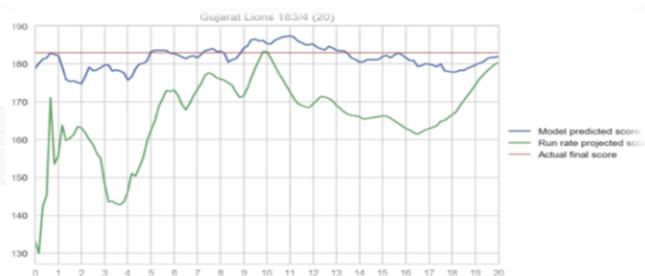


Source: <https://www.sciencedaily.com/releases/2020/09/200909114854.htm>

Written by: Rajharini R (18CSR153) – III CSE C

Machine Learning in IPL

Indian Premier League (IPL) is one of the more popular cricket world tournaments, and its financial is increasing each season, its viewership has increased markedly and the betting market for IPL is growing significantly every year. With cricket being a very dynamic game, bettors and bookies are incentivized to bet on the match results because it is a game that changes ball-by-ball. The machine learning technology to deal with the problem of predicting cricket match results based on historical match data of the IPL. Influential features of the dataset have



been identified using filter-based methods including Correlation-based Feature Selection, Information Gain (IG), Relief and Wrapper. More importantly, machine learning techniques including Naive Bayes, Random Forest, K-Nearest Neighbor (KNN) and Model Trees (classification via regression) have been adopted to generate predictive models from distinctive feature sets derived by the filter-based methods. Two featured subsets were formulated, one based on home team advantage and other based on Toss decision. Selected machine learning techniques were applied on both feature sets to determine a predictive model. Experimental tests show that tree-based models particularly Random Forest performed better in terms of accuracy, precision and recall metrics when compared to probabilistic and statistical models. However, on the Toss featured subset, none of the considered machine learning algorithms performed well in producing accurate predictive models.

Source: <https://doi.org/10.1016/j.aci.2019.11.006>

Written by: Dhivakar KS (17CSR029) – IV CSE A

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Students' Segment



S. Priyadarshini

II CSE C



S. Sneha

III CSE D



V. Swathy

IV CSE D



P. Rima

III CSE C

A. S. Krithika Tharani

II CSE B



"Questions provide the key to unlocking our unlimited potential."

- Anthony Robbins



Kavinbharathi A

II CSE B

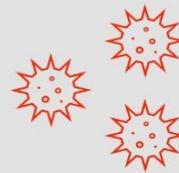
Maamathi K

II CSE B

OUR HEALING MOTHER

NO ANNOYING HORNS!
NO AGGRAVATING TRAFFIC!
ITS ABSOLUTE PEACE ALL OVER THE CITY,
THERE IS A LOT OF FEAR EMANATING,
BUT I SEE A RAY OF HOPE, ON CONTRARY.
CALL IT OPTIMISM, BUT IT IS THE FACT...
THIS PANDEMIC COULD BE A BLESSING IN
DISGUISE.
MAY BE, MOTHER EARTH NEEDED A BREAK,
MUCH NECESSARY FOR HER, TO FIGHT AND
REVIVE.
DROPPING EMISSIONS AND IMMACULATE
AIR.
ALTEAST INDUCING AN "ARTIFICIAL HALT".
THE PUNCTURED HOLES CAN BE SEWN
AGAIN,
IF WE RETHINK OUR LIFESTYLES TO NO
ONE'S FAULT.
DOLPHINS REACHING OUT TO SHORES,
BIRDS CHIRPING THEIR WAY BACK TO TREES,
CLEAR WATER BODIES AND GREENER
DWELLINGS,
COULD BE THE NEW WORLD, OF FUTURE
DESTINY.
JUST THINKIF A VIRUS CAN DO SOWHY
CAN'T WE?????

-MAAMATHI



#QUARANTINED

STAY INSIDE, STAY HEALTHY

Of What I Took

It has been 13 years since I changed as an alumnus from student to our college, today I would like to turn back and connect the dots of my professional career with things I took from my college days. I was waiting for 9 years of great passion and eagerness to join computer science & engineering and I did.

Let me start with Open office, this was my first open source software in my life. Open source community was evolving that time, later days we did campaigns in our computer centres to stop using IE and forced everyone to use Firefox (Chrome does not exist that time 😊). The C-programming lab in first year was instrumental to teach what programming means. To be frank, I got my first project in HCL because of the code I wrote for a linked list challenge, the logic of the code is from this lab.

I strongly believe the Computer architecture subject is the only subject which differentiate us from any other department. Still remember the example of cache memory given by our professor (it's like cash in your pocket, ready to use immediately). Anyone can write code in this industry but only the people who have an understanding on complexity of a code become better programmers, Algorithm and data structures class was making sure that we should become a better programmer. Principles of compiler design taught how a compiler parses a program, and internals of how our code is getting converted to an instruction. Also introduced some great personalities like Alan Turing.

We always have a strong link to the electronics department because we are a brainchild of them. Specifically, Digital systems combined with microprocessors is what made us today. Thoroughly enjoyed both labs except the scolding for not completing the observations. Though I am not a theory guy, somehow Networking paper made me go through the entire book and laid an idea to visualise the internals of today's interconnection, maybe the professor again.

Database management system shadowed a light on manipulation of data, all the thousands of lines of query we write today evolved from that classroom 😊. I am aware that analytical mathematics is a key for most of the development in our industry, but I was missing something to link our industry with maths classes those days (struggling today as well). Finally, Unix internals – This magic word gave the confidence and ability to talk about the behaviour of all different flavours of Unix. Absolutely, this word is making to stand out in a group as not many go through this.

If anyone asks me to name 3 places from our college where I took most then I would say CC7, TBI and KEC Linux User Group [KLUG] meets.

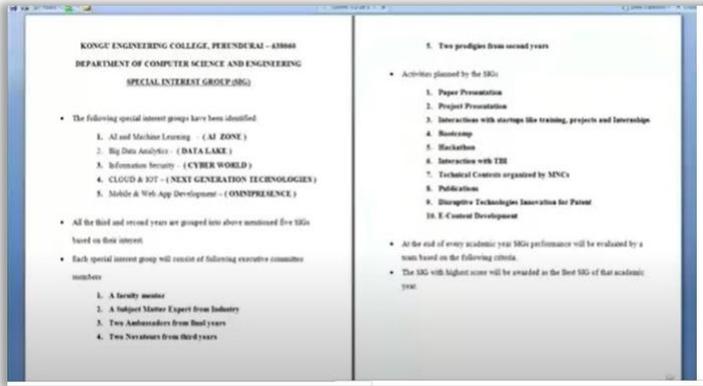
"Ability is of no account without opportunity" -Napoleon Bonaparte



Kaviarasu Arunagiri,
[2003-2007] – CSE / KEC
02 Oct 2020, London.
kaviarasu@gmail.com

Department Happenings

Alumni Meet 22nd August



Alumni Meet 05th September



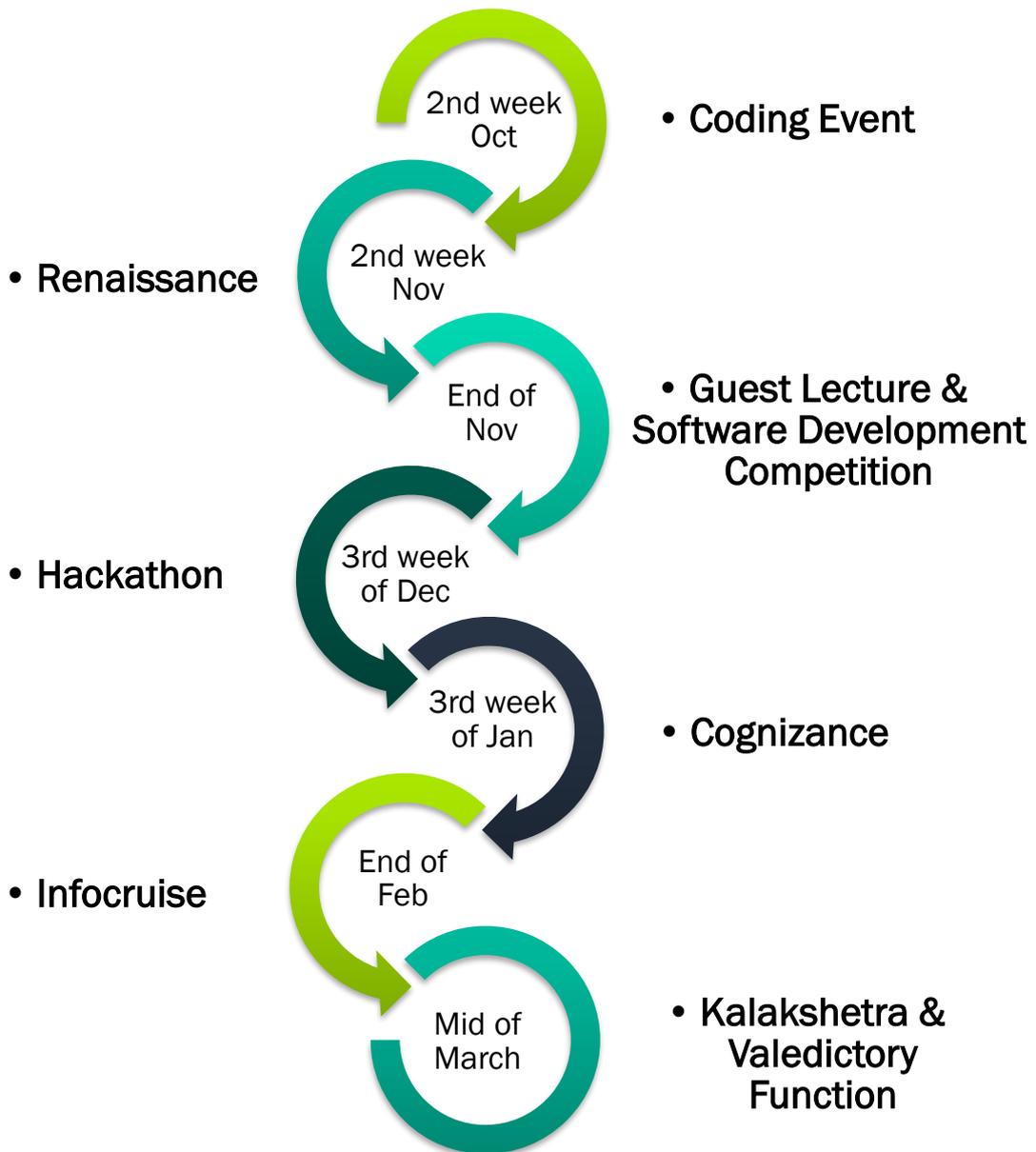
CSEA and CSI Inauguration 14th September



"Questions provide the key to unlocking our unlimited potential."

- Anthony Robbins

Event Plan



Placement

TRIMBLE



17CSR009
AKASH M



17CSR029
DHIVAKAR K S



17CSR028
DHARANESH K



17CSR018
BHUVANA PREETHA V



17CSR101
KOUSHIK KUMAR V



17CSR111
MOHAMED KAMAL SHAREEK S



17CSR083
KARTHIKEYAN B

CODINGMART TECHNOLOGIES



17CSR110
MOHAMED HANIF P



17CSR152
PRASANNA S



17CSR170
RANJITH G

"Never rest on your laurels. Nothing wilts faster than a laurel sat upon."

- Mary Kay

SOLITON TECHNOLOGY



17CSR046
GOWTHAM K



17CSR169
RANJANI T

CODA GLOBAL



17CSR057
HARITHA K J



17CSR234
VISHNU KUMAR H

EXAMLY



17CSR049
GOWTHAMAN T



17CSR114
MOHAMMED SHAJITH K

KAAR TECHNOLOGY



17CSR050
HARI PRASATH S



17CSR020
BOOPALAN M

INFORMATICA



17CSR158
PRIYADARSINI P S

HEXAWARE



17CSR023
DEEPAK C S

Quiz

**YOU KNOW,
WE HAVE
A LITTLE
QUIZ FOR
YOU. GIVE
IT A TRY
AND GET
RECOGNIZED**

<http://bit.ly/csea-quiz>



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With Regards

CSEA Newsletter Team 😊