

Pondicherry Engineering College

DEPARTMENT *of* Computer Science and Engineering





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e, the organizing committee take immense pleasure in conducting the flagship event of the Department of Computer Science and Engineering - CYBYRUS 2K20.

We have been looking forward to this grand festival with great enthusiasm, ever since the HUB (*The Students' Council of CSE department*) made a magnificent inauguration, earlier this academic year and it is finally here with an exciting valentine theme. That enthusiasm in us never slumped during organizing CYBYRUS, thanks to the ever encouraging Head of the Department and the student coordinators. We would proudly brag about our unity that was mediated by each one of us in the crew, irrespective of the year of study and the course.

This technical magazine named CYBYRUS is the product of our mammoth efforts. This booklet of extravaganza is meticulously crafted by collecting the valuable articles without any lapse from students, staff, and scholars of the CSE department and editing to make it free of any chaos. We are pretty sure that the contents of this magazine would delight you with their rich details and technical distinction.



### Message from the Principal



Dr. S. Kothandaraman

am happy to note that the Department of Computer Science and Engineering is making efforts continuously to enhance the technical skill of the young minds. Bringing out the magazine 'CYBYRUS' is one such endowment of this department supported by teachers with great commitment. It is also a happy note that our students have also immensely contributing to maintain the tempo of publishing the magazine every year. Learning is not a process limited to schools or colleges, but it is also an experience and way of handling things. In today's competitive world, it is essential to have leadership skills, soft skills, technical skills and critical thinking skills. The meritorious students of CSE department also have launched their All India Intercollegiate Technical Symposium "CYBYRUS-2K20" which provides a platform in showcasing the talents among the student participants across various colleges all over India.

The students of CSE department are vibrant with amazing energy and have displayed great enthusiasm and unity in unfolding this event. I sincerely appreciate and wish all the success in all the endeavours of the Department of Computer Science and Engineering

### Message from the HOD

am extremely delighted to offer this message for the Cybyrus magazine released in the National Level Technical Symposium CYBYRUS 2K20 on 13<sup>th</sup> and 14<sup>th</sup> Feb 2020. The Department of CSE is one of the most prestigious departments which has produced and shaped many laurels in the field of Computer Science and Engineering by imparting quality technical education. Besides, CYBYRUS offers exciting platform for the students to cultivate and nurture their comprehensive skills further to shape them more proficient in the competitive world.

I congratulate and thank the students and my colleagues for their tireless efforts to organize one more edition of CYBYRUS and bring out Cybyrus magazine. I wish them all success.



Dr. R. Manoharan Head of the Department, CSE

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## Message from the Co-Ordinators

The Department of Computer Science and Engineering has been unstoppable in its progress as it has been actively involved in various activities that have brought to light the hidden talents of the students. CYBYRUS is one such student council activity which provides an intersection of great challenge and great opportunity for the students to review their efforts and to analyze their achievements. CYBYRUS is a National Level Technical Symposium organized by the Department of Computer Science and Engineering, Pondicherry Engineering College for every year. As a part of the Technical Symposium it is customary to release the Magazine 'Cybyrus'. This magazine gives an insight into the range and scope of the imagination and creativity of our students.

We appreciate and applaud the editorial team for their successful completion of this tedious yet daunting task of putting together the myriad thoughts and dreams of our students and faculty into a meaningful and delightful visual fest called 'Cybyrus 2k20'. We thank all who stood by us patiently and contributed in the development of this magazine.

Hope you appreciate our efforts. Happy Reading!



Dr. N. Sivakumar Asst. Professor, CSE



Dr. M. Thenmozhi Asst. Professor, CSE



Dr. P. Salini Asst. Professor, CSE





# Digital Twins

#### By Harish P.

B.Tech III Year

With additional software and data analytics, digital twins can often optimize an IoT deployment for maximum efficiency, as well as help designers, figure out where things should go or how they operate before they are physically deployed.

digital twin is a digital representation of a physical object or system. Expanding the technology further, it can be used to represent living things, cities and even a process too. The First idea of digital simulation arose at NASA to have a space capsule simulation to experience the problems in space from the ground which made great pavement in digital simulation.

But the term took off after Gartner named digital twins as one of its top 10 technological trends of 2017 saying that within three to five years, "billions of things will be represented by digital twins, a dynamic software model of a physical thing or system". A year later, Gartner once again named digital twins as a top trend, saying that "with an estimated 21 billion connected sensors and endpoints by 2020, digital twins will exist for billions of things soon."

#### How does a digital twin work?

A digital twin begins its life being built by specialists, often experts in data science or applied mathematics. These developers research the physics that underlie the physical object or system being mimicked and use that data to develop a mathematical model that simulates the real-world original in digital space.

The twin is constructed so that it can receive input from sensors gathering data from a real-world counterpart. This allows the twin to simulate the physical object in real-time, in the process offering insights into performance and potential problems. The twin could also be designed based on a prototype of its physical counterpart; in which case, the twin can provide feedback as the product is refined; a twin could even serve as a prototype itself before any physical version is built.



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#### Digital-twin use cases

These two digital-twin examples – the car and the cargo vessel – give you a sense of potential use cases. Objects such as aircraft engines, trains, offshore platforms, and turbines can be designed and tested digitally before being physically produced. These digital twins could also be used to help with maintenance operations. For example, technicians could use a digital twin to test that a proposed fix for a piece of equipment works before applying the fix the physical twin.

### Digital-twin business applications are found many sectors:



• Manufacturing is the area where rollouts of digital twins are probably the furthest along, with factories already using digital twins to simulate their processes.

• Automotive digital twins are made possible because cars are already fitted with telemetry sensors, but refining the technology will become more important as more important autonomous vehicles hit the road.

• Healthcare is the sector that produces the digital twins of people we mentioned above. Band-Aid-Sized-Sensors send health information back to a digital twin used to monitor and predict a patient's well-being.

#### Digital twins and IoT

Digital twins can be used to predict different outcomes based on variable data. This is similar to the run-the-simulation scenario often seen in science-fiction films, where a possible scenario is proven within the digital environment. With additional software and data analytics, digital twins can often optimize an IoT deployment for maximum efficiency, as well as help designers, figure out where things should go or how they operate before they are physically deployed.

#### Digital twin vs. predictive twin

In a November 2017 article for Network World, contributor Deepak Puri outlined an example of an oracle-digital-twin-tool that provides users with two options – a digital twin and a predictive twin.

The digital twin can include a description of the devices, a 3D rendering, and details on all the sensors in the device. It continuously generates sensor readings that simulate real-life options. The predictive twin "models the future state and behavior of the device," Puri writes.

"This is based on historical data from other devices, which can simulate breakdowns and other situations that need attention."

#### Benefits of digital twins:

Digital twins offer a real-time look at what's happening with physical assets, which can radically alleviate maintenance burdens. Chevron is rolling out digital twin tech for its oil fields and refineries and expects to save millions of dollars in maintenance costs. And Siemens as part of its pitch says that using digital twins to model and prototype objects that have not been manufactured yet can reduce product defects and shorten time to market.

Digital twins should be employed if necessity demands, else it increases the complexity. We must always be concern about the cost, security, privacy, and integration while implementing digital twins.



# Quantum Computing: The next big thing?

By Kadhirvel L. B.Tech III Year

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The question that we should pose is not "what to do with quantum computers?", but rather "how do we use it?"

ost of us, on hearing the term quantum computing, think of some kind of exotic, cutting-edge machine in a research laboratory cooled with liquid unobtanium and tended by a team of Ernst and dedicated white-coat-wearing caretakers. Well, most of that actually ticks off.Currently, there are only six quantum computers sold. It is in the place where classical computers were in the early 50s and 60s. We know that quantum computers exist now, but what it does, what it is used for, is still obscure. When we take a look at the academic literature on quantum theory and quantum computing, we can find that quantum algorithms greatly accelerate linear algebra equations from exponential to polynomial. This is a huge thing as it makes

working with big data more tangible. Given that we live in a world where huge amounts of data are generated every fraction of seconds, the leap to quantum computing is inevitable. The question that we should pose is not "what to do with quantum computers?", but rather "how do we use it?". Initial quantum computers might play a huge role in cryptography and cybersecurity.

Quantum computing will take computer processing power to the next level, beyond even that of the supercomputers. Quantum computing draws its power from matter and energy on the atomic and subatomic level, giving it scope to deal with problems in quantum mechanics that conventional computers are unable to get close to. It was first proposed by Noble Prize winner Richard Feynman almost 40 years ago. However, these computers are still years away from being used on a commercial scale.

Traditional computers do their computation using bits, which can be stored as electrical charges in processors or even tiny pits drilled into CDs. A bit only has two choices, which we represent as one and zero. Anything with two choices you can pick from is a bit. All computing is done via setting and relating bits, with operations like "if this bit is a zero and this bit is a one, make this third bit a one, Otherwise make it a zero." And so on and so forth. The qubit, short for a quantum bit, is a regular bit, but its both a zero and a one at the same time(before you look at it). It's that coin flipping in mid-air. A quantum computer is like flip-



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ping multiple coins at the same time-except while these coins are flipping, they obey the wacky rules of superposition, interference, and entanglement.

This increased computing power will have a widespread application in weather forecasting, optimization of supply chain and data analysis. Thanks to the growth in unstructured data, there is a need to process faster to obtain patterns of customer preferences and choices. The processing of this huge chunk of data can be shortened dramatically. With growing complexity in the business world, there has been an increase in constraints and data points; quantum computing is the answer to solve them quickly and save cost and time for any company. Governments have started investing in quantum computing to improve their weather forecasting. Quantum computing analyses huge data at once thus increasing certainty in any bad weather situation.

Encryption done by classical computers can be easily cracked by quantum computers. Quantum Key Distribution (QKD) uses photons to encode data in qubits and then data is sent to a receiver node without the need for a channel to be secure. This can be achieved due to quantum indeterminacy, which states hat measuring encrypted states would alter its state and the sender would know if there is any breach in the channel. Classical computers have a limit when it comes to analyzing complex molecules. Quantum computers would be capable to analyze complex molecules, which would open new avenues

of medical advancement. Accenture and 1QBit along with Biogen have started using their the quantum-enabled molecular comparison that would facilitate drug discovery for neurological conditions such as multiple sclerosis, Alzheimer's, Parkinson and Loe Gehrig disease. IBM and Google are investing heavily on quantum computers and it is the next big thing on the horizon. It can have a tremendous impact on machine learning and artificial intelligence--processing data, which would take a classical computer many years and decades, in a matter of few minutes.

By Thushara Chowdary C. B.TECH II Year

# Virtual Reality

ow many of us often fascinate over how technology has improved to a great extent in recent years? We are able to enter into a different world which isn't real at all through technology. Yes, it's VIR-TUAL REALITY. Virtual reality in simple terms is an environment created using software technology that allows the user to believe it's true even though it's impossible. The technology behind VR is designed to make us feel as if we have left the place we are standing and have been transported somewhere completely different. We experience the world around us through senses like vision, touch to name a few and the act of transmitting this information from sense organs to the brain is called sensation and the brain's interpretation of these senses

which creates our understanding is called human perception. VR tricks our brain into a feeling of being in a real motion environment like moving inside a car and design the alternate world exactly how we perceive our reality to make it more convincing. When we put on a VR device it takes us to a different set-up making us completely unaware of the surroundings. Head tracking simply monitors the direction that your head is pointing by using something called accelerometer .which can sense whether and in what direction something is moving. So how is it possible to experience motion in VR when you aren't moving at all? Your sensory system isn't highly activated in VR because you are often standing still or sitting and VR headsets are developed to produce a binocular vision by presenting slightly different images to each eye, giving the illusion that a two-dimensional picture is a three-dimensional environment and along with head tracking it clearly tricks our brain and convince us that the different world entered by us is a reality.

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VIRTUAL REALITY IN SIMPLE TERMS IS AN ENVIRONMENT CREAT-ED USING SOFTWARE TECHNOLOGY THAT ALLOWS THE USER TO BELIEVE IT'S TRUE EVEN THOUGH IT'S IM-POSSIBLE.

# Technology Natural Language Processing

By Kowsalya R. B.TECH II Year

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How often do we call out Siri or Alexa for help? but have you ever wondered how could this be possible? Have you ever thought what is the mechanism which works behind "hey Siri" or "okay google"?

ow often do we call out Siri or Alexa for help? but have you ever wondered how could this be possible? Have you ever thought what is the mechanism which works behind "hey Siri" or "okay google"? This is all because of NAT-URAL LANGUAGE PROCESSING". Natural Language processing refers to an artificial intelligence method of communicating with systems using natural language. It is a way for computers to analyze, understand and derive meaning from human language in a smart and useful way. Here the human talks to the machine, the machine captures the audio, the audio to text conversion takes place followed by the processing of text's data takes place which is again converted to audio and the machine responds to the human by playing the audio file and all this takes place within few seconds. This cuts down the time required for translating documents. NLP entails applying algorithms to identify and extract the natural language rules such that the unstructured language

data is converted into a form that computers can understand. It involves several steps like segmentation, word tokenization, lemmatization etc. Some of the common applications of natural language processing are chatbot, language translation, search auto-complete, search auto-correct, form spell check, e-mail filters, smart assistants, search results, voice text messaging and many more. But natural language processing should be developed even more because we are living in a developing country where even though the common medium of language is English and the national language is Hindi still there are many people who are not able to converse in both the languages and for such people the technology isn't reached to a great extent and by helping them to converse with the technology in their own mother tongue will help us to increase the usage of technology And also prevent English language to be a hindrance to people who want to use technology.





# MPA Virus

By Amrin Sultana M. & Bavani T. B.TECH II Year re you a victim of the MPA virus? In which stage has the virus been attacked your body? If you are wondering about what is this new virus is it is none other the MO-BILE PHONE ADDICTION (MPA). This is a new virus which has af-

### "YOUR CELL PHONE HAS AL-READY REPLACED YOUR CAM-ERA, YOUR CALENDAR, YOUR ALARM CLOCK... DON'T LET IT REPLACE YOUR FAMILY!"



fected almost all the age groups starting from a 2-year-old child to the elderly people. And the severity of this virus is also very high and once it is started it is tough to recover from.

The basic reason why mobile phones were developed to keep people connected, regardless of the distance that separates them. In earlier days, people used postal cards to share their thoughts with their relatives. Depending on distance, it took even months

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the postal card to reach the addressed destination to overcome this. Mobile phone technology got its underway in 1843 with which we are now able to speak with our beloved ones instantly. Though mobile phones have revolutionized the world with the internet so much by helping us to be independent in so many ways by in-cooperating so many devices like a phone directory, clock, camera, calendar, television into a palm-size device and it also helps to develop any person in this world to reach high positions and also to get any resources from any part of the world in just one click. But, the problems created by this palm-size device are also very high. Today many of us cannot imagine our lives without mobile phones. They have become our source of respiration. We can starve without food even for days but we cannot keep ourselves separated from our mobile phones even for few seconds. Due to this virus, the value of the relationship has been degraded. There is a popular thought for this: "Until the phone was connected with a wire, the Family was united. When the phone was not connected the Family got separated".

We are searching and asking someone for a friend



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request to speak with us without knowing their character but at the same time, we don't even now who is residing next to our home and can't spend some time with our family members for just few minutes. Alex Morritt said,

"The more time we spend interconnected via a myriad of devices, the less time we have left to develop true friendships in the real world". In the olden days for any festivals or occasions, the whole family will

gather together in our elder people's house and spend time and talk with each other and make the relationship even stronger but now we have the habit of sending forward messages with the fake emoji's to our family members and friends with whom we would not even talk for the whole year or go to elder's house and everyone will use their mobile phone without bothering what is happening next to us. And the fun fact is we talk with that person for hours in the mobile phone but when they appear in front of us we can't utter a single word to them and we behave like strangers to them.

And the next thing is showing off our lifestyle to the whole world though it is fake by posting what we eat, where are we going everything to the people who are even bothered (except few)about that and your happiness can only make them jealous or make them sad which they can't afford.

Now everyone is addicted to lot of games like pubg, subway surfers, temple run, by which we forget the existence of real-world games like cricket, tennis, badminton, chess and many more which helps us to interact with our seniors and also our friends and also helps in improving our health by making us fit and refreshing our mind. But in mobile phones we are just watching the screen endlessly and just spoiling our eyes by which now even a toddler is wearing spectacles and making our brain exhausted and use of fingers to swipe can cause a syndrome called carpal tunnel syndrome. A recent Huffington Post article reported the following statistics :

1. 92% of teens go online daily.

2. 76% of teens use social media daily.

3. 77% of parents say their teens get distracted by their devices and don't pay attention when they are together.

4. 50% of teens say they feel addicted to their mobile phones.

These statistics show the urgency to understand and address MPA related issues before it reaches a stage of Digital Detox. "I finally realized it. People are prisoners of their phones, that's why they are called CELL phones". Some more serious long-term issues that require immediate attention are:

- Emotional and mental stress
- Depression and loneliness
- Social anxiety
- Negative emotions
- Obesity due to lack of physical works.

We are not blaming everyone who is using the mobile phone some use it beneficially and spend the other time usefully without this device. They are the people who have known the remedy for curing this virus. There are so many ways to spend your life without this device and improve a lot in your life. Just keep your phone aside for a few hours and start seeing the real world by knowing what is happening around us and spend some time with the people who are real to you. Allow the small children to use their childhood days happier by spending the time out or reading books which will ignite their mind instead of nurturing them with the phone at a small age. So it is in your hands to cure the virus and lead a peaceful life and make yourself occupied with the real world and come out of this virtual world.







END-TO-END

HELLO ;)

n the previous magazine we comprehended an article "Encryption using python" which was an example of symmetric encryption where both the sender and receiver possess the same key to encrypt and decrypt the data.

Asymmetric Encryption is a form of encryption where keys come in pairs. Where one key encrypts, and the other can decrypt. It is also known as Public Key Cryptography, since users typically create a matching key pair, and make one public while keeping the other secret. Users can send secret messages by encrypting a message with the recipient's public key. In this case, only the intended recipient can decrypt the message, since only that user should have access to the required secret key. Conversely the message can be signed with the

private key of the sender and the receiver who has the corresponding public key can decrypt the message and this would prove that the document was sent by that sender.

#### RSA (Rivest–Shamir–Adleman)

is an algorithm used by modern computers to encrypt and decrypt messages. It is an asymmetric cryptographic algorithm. Generating the public and private key:

 Choose two different large random prime numbers p and q.
 Calculate n = p\*q, (n is the modulus for both keys)
 Calculate the totient.
 Φ(n) = (p-1)(q-1)

4. Choose an integer e such that  $1 < e < \Phi(n)$  also  $\Phi(n)$  and e share no factor other than 1(coprime). 5. Compute d to satisfy the congruence relation d % e = 1. i.e., d = (1+x  $\Phi(n)$ )/e Now e is the public key and d is the private key.

#### Encrypting message:

Consider you have to send a message m. First turn the message into number probably using the ASCII code of that character such that it doesn't exceed the n value.

#### c = me % n

Now c is the encrypted message. Decrypting message:

When the encrypted message c is received, it can be decrypted to m by performing the same operation with the private key. m = cd % n



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### Python Code

```
from decimal import Decimal
def gcd(a,b):
      if b==0:
           return a
      else:
            return gcd(b,a%b)
p = int(input('Enter prime number p = '))
q = int(input('Enter prime number q = '))
n = p*q
no = int(input('Enter a value less than '+str(n)+' = '))
n = p*q
t = (p-1) * (q-1)
for e in range(2,t):
      if gcd(e,t) == 1:
           break
for i in range(1,10):
      x = 1 + i*t
      if x % e == 0:
           d = int(x/e)
           break
ctt = Decimal(0)
ctt =pow(no,e)
ct = ctt % n
dtt = Decimal(0)
dtt = pow(ct, d)
dt = dtt % n
print('n ='+str(n)+'e ='+str(e)+'t ='+str(t)+'d ='+str(d))
print('cipher text ='+str(ct)+ 'decrypted text =' +str(dt))
```



By Adharsh M. B.TECH III Year

## Jargons in AI

By Ranjeet Mishra

**B.TECH III Year** 

oday, hardly anyone of the computer domain is untouched of the term artificial intelligence, in short AI. We use many products powered by AI like Siri, Alexa, Snapchat facial filter, search engine, youtube, etc. There are a lot of words getting used regarding AI and data science but many are confused. For example, we come across terms like data science, artificial intelligence, pattern recognition, machine learning, deep learning, natural language processing, image processing, computer vision, Speech technology, reinforcement learning. But, very few know exactly what these are. That is why I am calling these as jargon. These whole terms are related to data only. So what are the difference between these terms and what is AI? AI, sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and other animals. In simple words, I can say that AI is all about making a machine do the operations which a human being can do. Artificial intelligence is a collection of abilities, tasks, and methods. 1. Abilities mean the functions which a human being can do. A human being can see things i.e. identify things(Vision), can create and listen sound(Speech), read and write documents, make decisions. These abilities will be mapped to computer vision, speech, natural language processing and

planning/decision making for a machine. Jargons fitting in this category are natural language processing, speech, computer vision. 2. These abilities allow us to do certain functions which are called tasks. For example, by using vision ability we can identify which is a dog and which is the cat, by using speech ability we can read the document and speak it. In AI, a machine will learn how to do these tasks using some algorithms. 3. For making a machine to do some tasks, it will be trained through some set of instructions which are called methods. Jargons fitting in this category are deep learning, machine learning, reinforcement learning. The process of AI is to create a model, train it, then infer results with new data. There are mainly two types of learning in AI. Supervised Learning:

In this case, we have input data and know what the correct answer is. A simple way to visualize the input data is a grid of rows and columns. At least one of the columns is "labelled data", this is a value which we try to predict and other columns are called "features".In this case, we try to approximate the relationship between input and output by using some athematical functions. It is helpful in areas like object detection, speech recognition etc. Unsupervised Learning: In this case, we don't have labelled data. What we do is to try to find similar objects and group them into clus-



There are a lot of words getting used regarding AI and data science but many are confused for.

> ters. It is helpful in areas such as: • Customer Segmentation -

> What types of customers are buying our products and how can we customize our marketing to each segment.

#### • Fraud Detection -

assuming most credit card transaction follows a similar pattern, we can identify transactions that do not follow that pattern and investigate those for fraud.

#### Reinforcement learning:

Here, there is no right answer. What we are trying to do is train a model so that it can react in a way that will produce the best result in the end. Reinforcement learning is frequently used in video games. For example, we might want to train a computerized pong opponent. The opponent will learn by continuing to play pong and get positive reinforcement for things like scoring and winning games, and negative reinforcement for things like giving up points and losing games. Much more meaningful use of reinforcement learning is in the area of autonomous vehicles. We could train a simulator to drive around city streets to penalize it when it does something wrong and reward it for positive results.



### Life Style

# Stress Management

By Koneni Srujana B.TECH II Year

The symptoms of stress are often seen in the students who are newly recruited into the IT field. The most common reason for this is not able to adjust to the working environment so fast.

owadays feeling stress is the most common issue being faced by people in all the professions irrespective of their ages. Stress is a good extent in natural to all human beings. It is unavoidable and it affects the mind and body of a person badly. Stress can make us ill and depressed. It may cause headache and insomnia. Our body becomes weak and would not be able to do anything correctly. During busy times at work when we try to manage our finance, coping with the challenges we feel stress. The symptoms of stress are often seen in the students who are newly recruited into the IT field. The most common reason for this is not able to adjust to the working environment so fastly. This may take some time to get adjusted to the working environment. It is very high in software profession because of their nature of work, target, achievement, over workload. IT professionals are at a constant pressure to deliver services efficiently. Working employees in IT are prone to develop a lot of health problems due to continuous physical and mental stress of their work. The common health problem due to stress is an

acid peptic disease, alcoholism, fatigue, headache, insomnia, an upset stomach, high blood pressure, chest pain and problems in sleep, illness and depression, hypertension etc. Stress can also lead to emotional problems, depression and anxiety. Although stress may ,at times, fell unavoidable in our busy lives. Sometimes stress shows the useful response in challenges or threatening situations or learning new activities. We need a little bit of stress response to get things done (this is good stress). Low level of stress is good for us to achieve things. If this stress is continuously activated then problems like hormone imbalances, diminishing digestive system and immune response and excessive thinking starts. Stress can be managed by following some techniques and avoid the source of stress, software needs to consider their pressure regarding the nature of job, cultural expectations and their life esponsibilities. A state of deep rest and calm helps our body and mind return to a state of equilibrium. The body's relaxation techniques are-deep breathing-It focuses on inhalation and exhalation of full breath. So it helps to intake oxygen and decreased anxiety and tension. Meditation and yoga give scope for exercise and relaxation of the body totally and relief from mental stress. **Tips for a relaxed and healthy lifestyle:** 

•Participate in serving needy groups.

•Become a member of cultural and recreational clubs.

•Practice gardening.

•Make time for hobbies and interests.

•Visit places of worship of different faiths.

•Set realistic goals and expectations.

Get enough sleep and rest.Talk to friends and family when feeling anxious.

•Avoid caffeine.

•Keep a positive attitude.

•Eat a healthy and well-balanced diet.

•Learn to manage your time more effectively.

I hope with these techniques will help you to reduce the stress to some extent.

# Starfish Story

By Soena S. B.Tech I Year

nce upon a time, there lived a Mr and Miss Starfish, a happy-go-lucky couple who resided in the suburban areas of the seabed.

They loved to go on vacations all the time. They loved it so much that they'd often go away on holidays while being right in the middle of one.

One day, while they were hanging out at their favourite coral reef café, Miss Starfish stirred her Seeweed coffee cup dreamily and said, "Hey, let's go to the shore this weekend. Ariel was telling me about all the fun she had during her time there."

To this, Mr Starfish replied, "Sorry, I'm afraid it would cost us an arm and a leg each!"

"Okay then!" saying this Miss Starfish buried her chin into her palms and looked up solemnly to avoid eye contact.

Instantly, a sudden happiness gleamed across her golden face.

"Let's go to the moon!" she said excitedly.

Mr Starfish was shell-shocked! He didn't know what to say. But he knew what he had to do to make his lady love happy.

"Follow me" he jumped up and off they cartwheeled their way along to a nearby port.

Mr Starfish pulled out an anchor from the wet sand and whipped it high above his head thrice. And then, he threw it towards the moon.

It landed on the moon and they began to climb. They climbed for hours and finally they had reached the moon. Mr Starfish unwound his bandana which was a picnic mat and they settled down to eat the delicious seaweed-filled sandwiches prepared by Mr Starfish. He was such a sweetheart. He never allowed Miss Starfish to do household chores.

They enjoyed their meal on the beautiful moon. When they were about to go, the anchor was missing!

"Oh no! Falling from a building is bad enough. We'd get squished into yellow goo if we fall from here," panicked the both of them.

"Do not fear. It was I who pushed off the anchor," a gentle kind voice replied.

"We can't see you. Who are you?"

The mystery voice was no other than the one and only moon. She explained her loneliness to the young couple and asked them if they'd be willing to stay with her.

The couple happily agreed and they stayed there, went shopping in the cloud complexes and eventually got married in the garden in the sky.

Their children and grandchildren lived on to live up to the story and even today if you look up every night, you can see happy families in the sky going out together.

That is how stars were formed in the sky.







By Shafreena S. B.Tech III Year

### The Love Story



I grew up looking at both of you, Playing hide and seek every day and night. May be you love each other so much that you always share your gloss. I was looking forward to the day when you will finally meet each other and end the game. The world gossiped when you finally kissed. They called it the 'eclipse', I called it the 'wedding'. But I was wrong. You did not end the game but spirited up each other to play hide and seek for the rest of your life.



**By Koneni Srujana** B.Tech II Year

### The Village



Dark in the field, shiny diamonds are seen; When I tried to count them far in the place of farm. The murmuring of insects reached my ears like the music of all classical instruments. The cool breeze from the tree smelled like a perfume from heaven and when I smiled with the pleasure of a different sense The flowers from the plant murmured that I am in the village.

Cybyrus 2020





**By Bavithra K.** B.Tech III Year



By Marthi Sharan M. B.Tech II Year



By Bavithra K. B.Tech III Year



By Rethinavelan S. B.Tech III Year

### <u>முதல் காதல்</u>



அழகிய பள்ளி பருவத்தில் நட்பில் மலர்ந்து காதலாக வளர்ந்தது...!! நாட்கள் கடக்க... கல்லூரி காலம்...!!! வெவ்வேறு இடத்தில் இருக்க... அகந்தை என்னும் ஒருவர் அறிமுகமானார்.! அவளை விட அகந்தையே முக்கியம் என என்னியதாலோ என்னவோ... காதல் உதிர்ந்தது...!!!! இருந்தாலும் மனதில் ஒரு நம்பிக்கை... மீண்டும் மலருமென்று...!!! இப்போது தான் தெரிந்தது... அது வேரோடு சாய்ந்ததென்று...!!!

### By Bavithra K.

B.Tech III Year

### <u>என் பேனா மையின் கசிவுகள்!</u>

ஆறாம் வகுப்பிற்கான நழைவு தேர்வு.... செதுக்கிய சிற்பமாய் என் முன் வந்தவரே என்னை செதுக்க முற்பட போகிறார் என்பது அறியவில்லை அங்ஙனம்... ஈர்த்தது எதுவென அறியவில்லை இதுவரை... மாரிக்காக சேமிக்கும் எறும்பைப் போல்... வாழ்வின் வறட்சியில் சுவைக்க சேமிக்கிறேன் எப்பொழுதாவது அவர் அனுப்பும் குறுஞ்செய்திகளையும், கண்ணசைவில் ஆயிரம் பேசிய அவர் கருவிழி பார்வைகளையும்... - என் நலன் விடும்பியுடனான முதல் சந்திப்பு...!!!

> முட்டை உடைத்து முதன் முறை வெளியுலகம் காணும் கோழிக்குஞ்சியை போல்... உள்ளூர் முட்டை தகர்த்து வெளியூருக்கு அடிவைத்தது... முதல் பள்ளி சுற்றுலா... எதற்கும் எதார்த்தமாய் தவிர்க்காமல் தலையாட்டுவதால் தஞ்சையின் தலையாட்டி பொம்மையாம் நான்... பெயரினாலோ உயிருக்கு அத்துனை நெருக்கமாய் போனது... - முதல் சுற்றுலா... தஞ்சை...!!!

தோழிகளுடன் மட்டுமே பேசி பழக்கப்பட்ட எனக்கு தண்ணீர் தவளையை எடுத்து தரையிலும் வாழ கற்றுக்கொள் என்று உரைப்பது போல் இருந்தது... பதினோராம் வகுப்பு முதல் நாள்... மூன்று வரிசையில அடுக்கப்பட்ட பெஞ்சுகள்ல நடுவரிசையில உட்காந்நிருப்பேன்... பக்கத்து வரிசை முழுக்க பசங்களா இருக்க கடிவாளம் கட்டிய குதிரையாய் கரும்பலகை மட்டுமே என் கண்ணெதிரே... கொஞ்ச நாள் போக கடிவாளத்தை கழட்ட வச்சது என்னவோ அவன் தான்... - முதல் பள்ளி தோழன்...!!!

எப்பொழுதோ நிகழ்ந்தவை எனினும் இப்பொழுது நிகழ்ந்ததை போலவே ஒரு நெருக்கம்... அசை போடுகையில் இசையோடு இயைந்த பாடல் வரிகளாய் நினைவுகள்...!!!!

விளையாட்டே வாழ்க்கையாய் உருண்டோடிய வருடம்... உயிரற்ற பொம்மைக்கும் உயிர் கொடுத்து உரையாடியது... எதிர் முனையின் எதிரொலியை எதிர்நோக்காமல் மூச்சு விடாமல் முனுமுனுக்கும் அலைப்பேசியின் வாடிக்கையாளர் சேவையைப் போல் பொம்மையிடம் பொழிந்த பிரிய உளறல்கள்..... - பொம்மையுடன் முதல் நாள்....!!!!!

பூமி விட்டு வேறு கிரகம் புகுவதைப் போல் ஓர் உணர்வு... ' அம்மா வேணும் '' வீட்டுக்கு போகணும் ' அழுத எல்லோருக்கும் டீச்சர் மிட்டாய் தர.... பௌர்ணமி நிலவாய் என் முகம் பிரகாசித்ததாலோ.... எனக்கு மட்டும் தரல... அப்போ நானும் அழனுமா அம்மானு கேட்ட குழந்தை நிமிடத்து ஞாபகம்.... - பள்ளி முதல் நாள்....!!!!

சின்ன நடுக்கம் குட்டி தயக்கம்... நடுங்கியபடியே மனசுல ஆடிய நடனம்... சிரிச்சிக்கிட்டே தான் ஆடேன்னு முறச்சுக்கிட்டே சொன்ன டீச்சர்... அத்துனை பாவனையும் உள்ளடக்கிய உள்முகம்... - மேடையில் முதல் நாள்...!!!

அன்பின் அரவணைப்பில் இளைப்பாறியதன் அறிகுறியாக தென்படுவது என்னவோ எப்பொழுதோ எல்லோரும் சேர்ந்து எடுத்த அந்த புகைப்படம் மட்டும் தான்... அப்பவே அக்கா ரெண்டு பேரும் புடவை நகையெல்லாம் போட்டிருக்க... அண்ணனோ கோட் சூட் லாம் போட்டு செம ஸ்மார்ட்டா இருந்தான்... குட்டி தங்கச்சிக்குக் கூட பட்டு பாவாடைச் சட்டை போட்டு விட்டிருந்தாங்க... என்ன மட்டும் இது எதுலயும் சேராத வயதுன்னு ஏதோ ஒரு சட்டைய போட்டு எடுத்த போட்டோ பாக்கிறப்ப... யாருக்கும் தெரியாம அன்னைக்கு அழுதத காட்டி குடுக்குது கலங்கி நிற்கும் என் கண்கள்...

# Dr. R. Manoharan FFS INTERVIEW

#### HOD, CSE Department

Have you ever bunked the classes? Sometimes. Interesting character that you see in yourself? Myself... (Thinks) not so much of excitement. Even if it's a big thing, I don't get excited. Any arrears? No. Crush? No. Have you ever told your friends you have not studied for the exam but studied? No. If you get a chance to be an actor, which actress would you choose to act with? *Like otha seruppu (smiles)... mudhal mariyadhai heroine.* If you are locked up in a room for several days without phone or television, what would you do? Sit simply, practice yoga, sleep that's it.

#### Advice for final year students ?

You should keep moving, reach your destination, should not feel bad .concentrate on what you get, that's it. Biggest achievements? Yet to come. I want to start an industry. World war 3 is about to begin. What would you do? I do what everybody does (laughing...). Modi or Trump. Who is best? Obviously Modi. Favourite comedy? (After thinking for long time....)Vadivel .Anything of his comedy.

### Dr. K. Vivekanandan

#### Professor

What is the secret for your energy? No other way, I have to venture. If you're invisble for one day what you'll do? I'll do something to improve the nation. If you're an actor which actress would you choose? Nayanthara. If you get a time machine what you'll do?

I'll try to find out origin of the universe. Advices for students: Self-discipline is very important. Try to follow it.

### **Ö** Ø



Any advices for final yr students? See, advices won't work. They have to realize their life. What is you biggest achievement, sir? I was driving my car.

#### Dr. N. Sreenath Professor Crush? My wife. Have you ever bunked the classes? Yes...I have (smiling) What would you do if you get a time machine? I would go to my young age...I want to enjoy one more day. Interesting character that you see in yourself? Thinking about others. Rumor that you have heard about yourself? There are many...one among them is that some students say I am student friendly. The situation where you felt low? When students ask questions which are not relevent to the class. Any arrears while you were studying? Yeah...one. Among Trump and Modi, who is best according to you? Obviously Modi, He is trying take the country in a forwarding way. Why not trump sir? Any particular reason? *He is doing for his country...not our country.* If World War 3 is going to happen in a few days, what would you do?

I will watch TV.

# Group Photos







Photos

### B.TECH Sophomores CSE A







### Photos

### MCA III, II & I Year



### M.TECH Seniors



Photos

### Ph.D Scholars



### Dr. D. Loganathan

#### Professor

**1.Interesting character that you see in yourself?** *Charming face.* 

**2.Any arrears that you had during college days?** *Being very goody goody guy… I did not have any arrears.* 

3.What will you do if you get a chance to be invisible for a day?

Play Sudoku games.

**4.Any Crush you had in your life?** *Teaching profession.* 

5.Have you ever bunked the classes?

In our college, students were used to select their subject staffs. We have to move from classes to classes for attending every lecture section. So, whether students were attending or not attending their classes was not known to the staffs and attendance was not compulsory

during our period. 6.What will you do if you get a time machine?

I don't use it. I wish to live in the present.

7.Message to current final year students?

*I wish them to have better placements and to reach much higher heights.* 

8.Your biggest achievements? The present situations.

### Dr. G. Zayaraz

#### Professor

Interesting character that you see in yourself? Hmmm...Being Cheerful...

What will you do if you get a chance to be invisible for a day?

I will spend time with my family... Crush?

(After thinking for long time) First crush in 1984...name cannot be revealed...

If you get a time machine what will you do? I will go back to my childhood days.

Any Arrears?

No...

Advice??

Whatever you...enjoy and do....

• If you are an Actor, which actress would you choose? (thinking...that movie...hmm...name....) ahh Anandhi...

### Dr. F. Sagayaraj Francis

#### Professor

#### Crush? (may be first or current)

Not really... I have lot of friends all about Then, nothing what that so... Only one thing, not clearly.. I was more towards academic and also we are friends in that time.. Still I have contact with her..

Interesting character that you see in yourself? Spectate wellers.

What would you do if you get a chance to be invisible for a day?

I will go and sleep. (Laughing...) That's what I want actually... I want keep Sleeping for at least one week to 10 days.. That's what I actually looking for...

If you get a chance to be an actor, which actress would you choose?

Laughing... I am not an actor...Unauthenticated questions I don't answer...I don't know many of them.. which one is

better..(Thinking..) Let me take everyone...

Arrears?

Gold Medalist ..

#### About final year students?

Good and well. Students are students...That's all (Smiled..) Advise to students...

0k...

What is your opinion about politics? Who do you think is better? PM Modi or Trump?

*I can't provide it.. Both are equal right...(Laughing..) In other part, anybody who deserves in the key part.* 

### Dr. E. Ilavarasan

#### Professor

What made you to be a professor?

It was an accident >-< but still I enjoy my life.

If you get a time machine what would you do? I will time travel back to 1984-1990.

What is the recent rumour you heard about yourself? No rumours..... you should say what rumours you have heard about me -.:?

Which actress do you like?

All are married... recently I have seen veeram ... So I like Tammanna ..i like Asin too.

Endha bench sir ninga college time la!

Last bencher....last but one.

Which year do you like most?

I have a good connection with third years ....and then final year and finally second years.

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# Photography

Imile











### Photography





Dinesh, B.Tech IV Year









### Photography





Karthikeyan, B.Tech IV Year

### Dr. S. Lakshmana Pandian

#### Associate Professor

### What will you do if you get a chance to be invisible for a day?

Laughing...I would like to do adventures. It seems to be like when i ride a bike people may not see me so they will think bike is running itself.

#### Crush?

During college days.

About final year students?

Excellent.

If you were an actor in movie which actress would you choose?

I have not seen movies in recent times. But, during 80's I like everyone(laughing).(not specific about anyone). Advice to students...

### Have to enjoy always and also have to work hard and update your knowledge.

#### What made you angry in recent times?

During Jallikattu protest when people came, calling our students to join the protest. I got angry and said, don't make our college like arts college.

What would do if you have a chance to use a time machine?

I would go back to my school days where public exams

### Dr. J. Jayabharathy

#### **Associate Professor**

**Interesting character that you see in yourself?** *Friendly.* 

What will you do if you get a chance to be invisible for a day?

Laughing... Lot to say, one day is insufficient. Publicize all the illegal activities like corruption while I am invisible. **Crush**?

#### <copy paste>

#### The past 1-year ma'am? Dai...

#### What if you're locked-up in an empty room?

I'll think about future, my kids... definitely not studies. Leaving college, I just throw that away. Even in college I don't think about studies.

#### Favorite comedy punch?

Vadivelu comedy "Plan panni pannanum"

#### About final year students?

Good boys. Knew your batch and your senior batch well.

#### will not be conducted.

### Are you a middle bencher, last bencher or first bencher?

I always used to sit in first bench because of my height

#### and even in college too. About third year students?

Excellent o Excellent(laughing).

#### What is your experience in IV with third years?

This is the IV I have gone after 15 years and of course I enjoyed.

 $\mathcal{O}$ 

#### What made you to be a professor? Let me tell the truth... Fate.

If you were an actress in movie which actor would you choose?

#### Kamal Haasan.

- Arrears?
- 2 papers. Control System, Maths.
- World war 3 is about to begin. What will be the last fun thing you would like to do?
- Roam around the world. Australia, New Zealand, Sri Lanka these are my favorite places.
- Advice to students

As usual... Follow our tradition and culture.





### Dr. K. Sathiyamurthy

#### **Associate Professor**

#### Crush(May be first or current)?

Crush irundha crush paniduvan(Smiles) If you get a chance to be an actor,Which actress would you choose ?

Hollywood venuma?Bollywood venuma? (After thinking)

Recent ah Vidhya Balan pudikum...avanga movie ellam paapan

### If you get a chance to be invisible for one day,What could you do?

(After thinking long time)

Yaar yarulam enoda class la thoongura ? yaarulam ena thitra ? Full ah college la dhan suthitu irupan

#### About your arrears in college days?

Yah ,I had....Electric circuit (2nd year) la vachirundhan What would you do if you get a time machine ?

College days ah namba pasanga enjoy panra mathiri pananum...indha mathiri college la padikanum About final year?

... Excellent ...

Third year :Super Excellent..

Advice for students?

(After thinking for sometime...)...Nothing.

### Dr. N. Sivakumar

#### **Assistant Professor**

First Crush? Laughs....In College.. Incident that cannot be forgotten? Many more to say...cannot specify... If you get a chance to be Invisible for a day, What would you do? Get into my favourite peoples life to see what's happening...Adds...Nazriya is my favourite Who is better, Modi or Trump? Neither **Opinion about final years?** My favourite batch Advice to students? As I generally say,"Enjoy your life to the fullest" Interesting character that you see in yourself? Handle everything coolly... Nothing can disturb me much...

If you were an actor in movie which actress would you

#### choose?

 $\mathcal{O}$ 

"Samantha",said instantly What would you do if you get a Time machine? Get back to college life.. Love marriage or arrange marriage? Arranged...(questioner laughed surprisingly)..."same question was asked 2 years back and the same reaction was given"..." love didn't happen to me" Arrears?

 $\mathcal{D}$ 

2... System software and Design and analysis of algorithm







Unnai nenaikkaamal orunodium irukkavum mudiyamal Unnai nenaithe vazhgiren yendru sollavum mudiyamal Nee thaan vendum yendru ketkkavum mudiyamal Unnai nenaithe uriginaen unakke theriyamal

Yenakkaga alla thanimaiyil vaadum en ithaiyathirku aaruthal kura nee vendum, thozhiyaaga alla thunaiyaaga

> B.Kamalesh, B.Tech II Year













### Dr. J. Kumaran

#### Assistant Professor

#### What made you to be a professor?

I want to do services...so I chose to be a professor.
Interesting character that you see in yourself?
I will always be a motivator for students...

What will you do if you get a chance to be invisible for a day?

I want to be away from students and family (Laughing...) to understand the trouble what I get ...and to be alone...
What will you do if you get a time machine?
I wanted to go back to my students life...

#### Number of crushes in college life?

Sight adikurathahhh(laughing).....it happens dahh in that age....In numbering means maybe 3 or 4..so many....love is there..then sight is everwhere right...but always the problem is one sided love....(Laughing...) If you were an actress in movie which actor would you

#### choose?

Nayanthara...and the second heroine like in raja rani means Samanthaa...

#### About current final year students?

yah people are good...they got more placements... Who is better Modi or Trumph? Both are same...almost both travel in same lane... (laughs)

Favorite comedy punch? Vadiveluh punch...ELUNTHEY UKARAA MULAYAM EPDI

#### Dr. M. Thenmozhi Assistant Professor

ODA MUDIUM...(laughs)...

If you get a chance of invisible for one day what will you do?

If u get a time machine for one day what will you do? I will go to my childhood days.

Who was your class crush?

Actor mela than crush irrunchu,class la onnum perusa illa.

If you're a actress with whom will you act?

ennakku Eppavumay favorite Will Smith, tamil la Jayamravi,

#### hindi la shahrukh khan.

Idhu varaikkum padikkala padikkala solli unga friends ah kaduppu ethi irrukingala?

### Dr. Salini P.

#### **Assistant Professor**

#### What made you to be a professor?

During my college days, we had PEC professor as guest in our college. He questioned us "why everyone aims to enter an IT company rather than being professor??". This remained my turning point.

#### Crush?

"what(lol)??!"...3 persons. But people fear to talk with me (tongue out).

What will you do if you get a chance to be invisible for a day?

I wish to be free.

What would you do if you get a time machine?

I would like to go back to my childhood because I enjoyed my childhood a lot. It was "no worry period".

#### About final year students?

Students are perfect in their attitude. Involvement in department function is reduced, Like 60% final year to 40% third year to 20%second year to 0.1% first year. Student faculty relationship is reduced.

#### Children or students??

Children at home and students when it comes to college.



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### Dr. J. I. Sheeba

#### **Assistant Professor**

#### Crush(May be first or current)? Apdilam yarum illa(laughing)

Interesting character that you see in yourself? Help panradhuna erangi panuvan .....adhuvae enoda positive and negative ...romba affectionate ah irupan elarodum

### If you get a chance to be invisible for one day,What could you do?

(Idhelam keta na ena solradhu …na yosikavae matanae) (Laughing)

Bible la paralogam nu irukum…apdi irukanu na poi check panuvan

If you are locked up in a room for several days without anything,What should you do? *Thoonguvan(Smiles)* 

What would you do if you get a time machine ? School days poi paapan.

#### World war 3?

Family oda azhiyanum.

#### About final year?

Pesitae irupanga...ena thitanalum kavalai padavae matanga (Laughing)...mathapadi padika vendiya nerathula padichiduvanga...nalla obedient aana pasanga

Pecha matum konjam kami panirundha nalla irukum(Laughing)

#### 8.Favorite Comedy punch?

Cinema romba paaka matan...(after thinking) Vadivel comedies romba pudikum.

### Dr. R. Kavitha Kumar

#### Programmer

What will you do if you get a chance to be invisible fora day?Fulfill all my desires.What would you change if you get the time machine?A lot has to be changed in the past...May be in futureArrears?1 arrear.If you were an actress in movie which actor would youchoose?Vijay Sethupathi.What if you're locked-up in an empty room?Depends on the situation.World war 3 is about to begin. What would be your last

### Dr. V. Akila

#### **Assistant Professor**

#### What is your advice to our students?

Its more than enough if they do their respective jobs.

What will you do if you become invisible?

Nothing strikes my mind, because I'm quite straight forward dealing person.

#### Your crush?

Starting from Kamal Hasan to Vijay Sethupathi adding to special mention like Vijay its keeps changing.

#### Time machine

Would go back to school days and wish to go to my native place(Neyveli).

#### Modi Or Trump?

 $\mathcal{O}$ 

Its between the devil and deep sea(laugh out).To promptly say I like American system of politics, in their system President keeps changing for 2 years once ,that is the quality i like about.

#### wish? Spend time with family

Advice to students? Maintain dignity. About final year students? Haven't handled any class for them. Modi or Trump? None Interesting character that you see in yourself? Mocking others What made you to be a professor? Accidental Crush? Pause

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### Cybyrus 2020 Student Co-Ordinators

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## B.Tech Final Year Batch: 2016-2020





# CYBYRUS 2020

