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Vol-VIII (2021-2022)

Mytros

Mind of Young Technocrats & Research Oriented Students

Annual e-magazine

Department of Computer Applications

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Message .....

Message from Director

Despite all the chaos caused by the pandemic, we cannot ignore the fact that it also created a plethora of new opportunities for us. Along with this, it created opportunities for people from various backgrounds to collaborate.

The IT sector and various applications developed specifically to work in this scenario made the greatest contribution to this, which also led to the birth of various other companies that began with a solution to some specific problems and later evolved into proper companies. Similarly, the Department of Computer Applications conducts various such activities, which are also adopted by other departments of the institute.

This e-magazine MYTROS is another such addition to the department's initiatives like project exhibition, codathons, and ideathons that aim to improve students' creative and critical thinking abilities.

I congratulate the team on the successful publication of the next edition of the MYTROS and extend my best wishes to the students.

Dr. A Garg
(Director)
KIET Group of Institutions,
Ghaziabad

Message .....

Message from Joint Director

I am delighted to learn about the new edition of MYTROS, the annual e-magazine published by the Department of Computer Applications. This magazine amply demonstrates our students' communication skills, poetic prowess, imagination, creativity, humanism, and technical proficiency.

I appreciate and applaud the editorial team for successfully completing this time-consuming yet daunting task of compiling our students' diverse ideas.

Creativity and Inspiring Innovation are two critical components of a successful education, and this magazine is an excellent example of both.

I extend my best wishes to all of the magazine's contributors and wish the Department continued success in raising standards.

Dr. Manoj Goel
(Joint Director)
KIET Group of Institutions,
Ghaziabad

Message .....

Dr. Anil K Ahlawat
(Dean Academic)
KIET Group of Institutions,
Ghaziabad

Message from Dean (A)

The Department of Computer Application strives to empower the youth by providing a conducive learning environment to develop their multifaceted talents. The department intends to work on students and allow them to cope up with technological complex problems.

I am gratified to know that MYTROS- A Department Magazine, is a very good initiative that will significantly improve the student's creative writing and creative analysis abilities.

I would like to congratulate our MCA students on the successful publication of the next edition of MYTROS.

My greetings to the editorial board to keep up the productive work.

I wish them all triumph!

Message .....

Message from HoD

MCA is one of the best professional choices for students in the IT era, with students from all walks of life enrolling each year.

Keeping this in mind, the Department of Computer Applications strives to provide equal opportunities to all students to learn and improve their skills. The department's various activities aim to improve students' life skills so that they can work in today's organisations.

Now, academic hours are no longer bound, and students and teachers alike work around the clock to achieve the Department's common goal of producing the best software professionals in the world.

MYTROS is the Department's annual e-Magazine. Students wrote, edited, designed, and published it. It gives students the opportunity to hone their writing and editing skills. I wish all of the students the best of luck with the eighth edition of MYTROS 2022.

Dr. Ajay Kr. Shrivastava
(HOD & Professor)
Department of
Computer Applications

Message .....

Message from Addl. HoD

I am really glad that the energetic team of students is ready with the Departmental Magazine MYTROS.

Good things remain good only because they are always scarce. I am glad to pen for this wonderful magazine as an appreciation of the commendable efforts put forth by the team. The annual departmental magazine, MYTROS, is a platform for students to showcase their creative abilities, through articles, poetry and innovative ideas. It also involves designing the cover and layout too.

Definitely this will help our students a lot in terms of technology as well as it will enhance their writing skills too. The efforts taken to bring out innovative content is appreciable.

I extend my greetings and convey the best wishes to the whole team for this production.

Mr. Rabi N Panda
(Addl. HOD)
Department of
Computer Applications

Message .....

Message from Editor

A very heartfelt WELCOME to the seventh edition of Departmental Magzine of Department of Computer Applicaions, **MYTROS 2022**.

First of all, I would like to express my sincere gratitude to **Mr. Prashant Agarwaal** for providing me the honour to work as the editor of **MYTROS'22**. Also, I would like to thank our Director Sir, Joint Director Sir, HOD Sir, and our additional HOD Sir for their inspiring messages and blessings for all of us.

This year has a special value for all of us as it marks the 75th anniversary of our Independence Day. This year, whole India celebrated '**Azadi ka Amrit Mahotsav**' with pomp and show.

The skeleton of the journal is made to include content form various diverse topics from our authors. The department has also tried to share glimpses of the various amazing events the were held in our department during the past one year.

I also extend my gratitude ans want to congratulate all the authors who came forward and showed their interest and active participation with their amazing writings. Thank you all.

I hope you will find reading this journal enjoyful and informative.

Brahm Dev Pandey
(MCA III-A)

Design is Inevitable

We were amazed twenty years ago at how computers and the internet had revolutionized so many parts of life. We were blissfully unaware that more was about to unfold just when we thought technology had attained its pinnacle.

This is true of graphic design as well. In many sectors, technology now plays an important part in the development of digital work. Since the advent of the digital revolution, portfolio design, presentations, signage, logos, websites, animations, and even architectural production have come a long way.

UI/UX design and Graphic design are no longer limited to the obvious graphic features of a product, such as packaging and marketing materials. Brands now have more online exposure, allowing businesses to communicate with their clients and consumers, and we can now monitor and analyze real-time data to discover what sources are driving the most traffic. We can actually monitor digitally which types of material and graphics are generating more media impressions, likes, and saves, and hence are more appealing and converting to a target demographic.

It goes without saying that technology and creativity are never static. Therefore user experience design will continue to evolve as time goes on. The rise of content marketing and smart design will continue to have an impact on income for firms.

UI/UX design will always be a crucial instrument for creative, economic, marketing, and architectural expression, and as technology and online channels improve, it will continue to evolve. Because of the connection with graphic design, photography is an important aspect of branding. Photo manipulation is used by graphic designers to convey a message. You can start the best ideas by sketching and drawing them out aka wire-framing. It's a powerful approach because it always aids you in coming up with new design ideas and solutions.

Digging through Behance, Dribble, and other similar sites can help you achieve your goals. You can find inspiration to widen your creative horizons and create something unique simply by glancing around your surroundings.

Anshima Saini
MCA (III-A)

DIGITAL MARKETING
WHAT, WHY, AND HOW

WHAT: Digital Marketing is an online promotion and presence building technique. If you want to sell your product in the online market then it needs digital marketing techniques that will increase the reach of customers towards the product. Digital marketing uses digital media and electronic devices to reach the target audience.

WHY: Traditional marketing has many faces. For instance, it includes tangible items like print ads in magazines or newspapers, business cards. It can also include commercials on radio or TV, posters, brochures and billboards. Anything except digital ways to promote your brand is traditional marketing but With the help of digital marketing, the business can target people who intend to buy the products. As most people spend time on the internet, it is easy for digital marketers to reach those customers. Nowadays some business owners start learning digital marketing techniques so that they can improve their business.

HOW: There are various elements by which digital marketing is formed. All forms operate through electronic devices. The most important elements of digital marketing are given below:

Online advertising: Online advertising is a very important part of digital marketing. It is also called internet advertising through which company can deliver the message about the products or services.

Email Marketing: When message about the products or services is sent through email to the existing or potential consumer, it is defined as email marketing.

Social Media: Today, social media marketing is one of the most important digital marketing channels. It is a computer-based tool that allows people to create, exchange ideas, information and pictures about the company's product or services. According to Nielsen, internet users continue to spend more time with social media sites than any other type. Social media marketing networks include Facebook, Twitter, LinkedIn and Instagram.

Text Messaging: It is a way to send information about the products and services from cellular and smart phone devices. By using phone devices, company can send information in the form of text (SMS), pictures, video or audio (MMS).

Affiliate Marketing: Affiliate marketing is a type of performance-based marketing. In this type of marketing, a company rewards affiliates for each visitor or customer they bring by marketing efforts they create on behalf of company.

Search Engine Optimization (SEO): Search engine optimization (SEO) is the process of affecting the visibility of a website or a web page in a search engine's "natural" or un-paid ("organic") search results.

Vaibhav Sinha
MCA (III-A)

DATAFICATION

Datafication is not a word that has a word found in Dictionary but nowadays we are hearing this word a lot. What it simply means is that from our actions to our thoughts, everything is getting transformed into a numerically analyzed format or "**Data**".

Nowadays, everything in the world from healthcare to entertainment is converted into data. For example, we create data every time we talk on the phone, SMS, tweet, email, use Facebook, watch a video, withdraw money from an ATM, use a credit card. Datafication help us to understand the world in a different way. New technologies are now available to ingest, store, process and visualize that data. Organizations are using them to getbenefits. Datafication and its analytics is going to play an important role for innovation and productivity in the future.

Example of Netflix: With Netflix's current streaming technology, they are able to gather data based on what the consumer previously watched in order to predict what they will watch in the future, and can suggest titles picked personally for them. Using wide-scale data, Netflix can gather information on what are the most popular shows and movies, who is watching what, and are able to keep their content hip and relevant to what audiences want to see.

With the data readily available, companies need enough levels of skilled professionals who can analyze and manage the data, to ensure it is of the greatest benefit. It will create jobs in the areas of data infrastructure, data management and data analytics.

According to information technology research and advisory firm Gartner, Big Data will create more than 4.4 million jobs by 2015, opening up opportunities for analyst and data-savvy job seekers. Organizations need people who understand how to collect, store and analyze the data.

In 2022 we would become increasingly familiar with the "**Metaverse**" — persistent digital world that exists in parallel with the physical world that we live in. Inside this world, as proposed by Mark Zuckerberg, we would carry out many of the functions that we were used to do in the real world, including working, playing and most importantly investing.

Shagun Jindal
MCA (III-A)

WEB 5.0
A Step Towards Privacy

Anuj
MCA (III-A)

Former CEO of Twitter, Jack Dorsey recently announced his vision for a new decentralized platform that is being called Web 5.0 and it is being built with an aim to return "ownership of data and identify" to individuals. In order to understand the Web 5.0, first we have to understand its previous versions.

Web 1.0: Its nothing but just the first version of Web in itself, i.e. WWW (World Wide Web), the era where people connected globally. Initially, when its started the users had only permission to read the information which is available on the Internet. That is why, this era of Web is known as 'read only'.

Thereafter some changes came into the world of internet. Now companies started facilitating their users to upload data on Web. This type of Web was being referred to as Web 2.0 and also called '**read and write**' Web.

Some popular examples include Facebook, YouTube, etc.

"**Web 2.0** is a knowledge-oriented environment where human interactions generate content that is published, managed and used through network applications in a service-oriented architecture".

That means Web 2.0 focuses on providing services rather than products. Services tend are built around concepts of community and collaboration as well as active involvement of people using the service.

But their were some problems with Web 2.0, like Excessive Hype, lack of simple definition, not facing Hard truths as well as it increasing the monopoly of companies as users did not have much rights on where the data is going to be shared and how its going to be used in future. For example, if any user uploads a content then it will not be easy to delete it from Web as permissions were totally in the hands of companies.

Web 3.0 As the technology increased very dynamically, like the invention of AI and machine learning. In consideration with this Web 3.0 came into existence.

Web 3.0 is the new generation of the World Wide Web, through which Web 2.0 technology joins hands with the Semantic Web, making it possible for human as well as machines to access and use the information stored on the Web and justify industry 4.0. Web 3.0 aimed at making the internet a better, smarter network, is a predecessor to the Fully Semantic Web, and successor to Web 2.0.

After the concept of Web 3.0, it is believed that data is distributed everywhere, even on machine and machine can become able to fetch the information and data and can store in it. With the boom of technologies, it became very unsafe to publicly store data of users as it causes several privacy and security issues.

Web 5.0

In Web 5.0, which is currently just a concept and is being identified as the 'hybrid' of Web 3.0 and Web 2.0, where above question is answered. Since Web 5.0 is completely based on Blockchain technology, in which a digital diary is introduced and it works as the main source of information. It only shares the relevant information with companies and authentication and sign-up are done in a secure way.

So Web 5.0 mainly focuses on the Privacy, Security and Safety of the people and companies using it. As it is totally needed in the era of industry 4.0 where it may be believed that machine learning and AI ruled, where all previous concerns like privacy safety and security matter.

The idea is very unique as it is being developed by former Twitter CEO. It is also used in Bitcoin business unit, Block head, etc.

So let's see when do we get this new and unique concept working in practical day-to-day life of ours.

The future of DATA STORAGE is double-helical

Amit Mohan Rajput
MCA (III-A)

Scientists say that they have made a major step forward in efforts to store information as molecules of DNA, which are more compact and long-lasting than other options. The magnetic hard drives we currently use to store computer data can take up lots of space. And they have to be replaced over time.

Using life's preferred storage medium to back up our precious data would allow vast amounts of information to be archived in tiny molecules. The data would also last thousands of years, according to scientists. A team in Atlanta, US, has now developed a chip that they say could improve on existing forms of DNA storage by a factor of 100.

"The density of features on our new chip is [approximately] 100x higher than current commercial devices," said Nicholas Guise, senior research scientist at Georgia Tech Research Institute (GTRI).

"So once we add all the control electronics, we expect something like a 100x improvement over existing technology for DNA data storage."

The technology works by growing unique strands of DNA one building block at a time. These building blocks are known as bases - four distinct chemical units that make up the DNA molecule. They are- adenine, cytosine, guanine and thymine. The bases can then be used to encode information, in a way that's analogous to the strings of ones and zeroes (binary code) that carry data in traditional computing.

There are different potential ways to store this information in DNA - for example, a zero in binary code could be represented by the bases adenine or cytosine and a one might be represented by guanine or thymine. Alternatively, a one and zero could be mapped to just two of the four bases.

Scientists have said that, in DNA, every movie ever made could fit inside a volume smaller than a sugar cube. The structures on the chip used to grow the DNA are called micro-wells and are a few hundred nanometers deep - less than the thickness of a sheet of paper.

The current prototype microchip is about 2.5cm (one-inch) square and includes multiple micro-wells, allowing several DNA strands to be synthesized in parallel. This will allow larger amounts of DNA to be grown in a shorter space of time.

Because it's a prototype, not all the micro-wells are wired up yet. This means the total amount of DNA data that can be written with this chip is currently less than what leading synthesis companies can produce on commercial chips.

However, Dr Guise explained, when everything's up and running, that will change. The current record for DNA digital data storage is around 200MB, with single synthesis runs lasting about 24 hours. But the new technology could write 100 times more DNA data in the same amount of time.

The high cost of DNA storage has so far restricted the technology to "boutique customers", such as those seeking to archive information in time capsules.

The team at GTRI believes their work could help reshape the cost curve. It has partnered with two California biotech companies to make a commercially viable demonstration of the technology: Twist Bio-science and Roswell Biotechnologies.

This type of data is currently stored on magnetic tapes which should be replaced around every 10 years. With DNA, however, "as long as you keep the temperature low enough, the data will survive for thousands of years, so the cost of ownership drops to almost zero", Dr Guise explained.

The work has been backed by the Intelligence Advanced Research Projects Activity (IARPA), which supports science geared towards overcoming challenges relevant to the US intelligence community.

तुम उठो तो सही

Atif Ali
MCA (III-A)

तेरी हर नायाब कोशिश कामयाब होगी
तुम चलो तो सही
तुम उठो तो सही

सपने तुमने देखे हैं, पूरा भी तुम्हें ही करना है
पूरा करने के लिए
तुम चलो तो सही
तुम उठो तो सही

मुश्किल है राह में, मंजिल है दूर
लेकिन इतनी भी नहीं
तुम चलो तो सही
तुम उठो तो सही।।

मुश्किलों से तुझे लड़ना है, सूरज बनकर चमकना है गर
तो चांद बनकर रात को जागना है, अपने मंजिल के कांटो को तोड़कर
लक्ष्य की ओर भागना है
तुम चलो तो सही
तुम उठो तो सही

खून में तेरे है चिंगारी, क्या करेगी तेरी बीमारी
हौसलों के पंखों को लगाकर
तुम चलो तो सही
तुम उठो तो सही

क्यों सोचता है अकेला है तू, वहां तक ना पहुंच पाएगा
जब खुद खुदा है तेरे साथ, तो तू अकेला कहां रह जाएगा
तुम चलो तो सही
तुम उठो तो सही

खून में तेरे है चिंगारी, क्या करेगी तेरी बीमारी
हौसलों के पंखों को लगाकर
तुम चलो तो सही
तुम उठो तो सही

क्यों सोचता है अकेला है तू, वहां तक ना पहुंच पाएगा
जब खुद खुदा है तेरे साथ, तो तू अकेला कहां रह जाएगा
तुम चलो तो सही
तुम उठो तो सही

कुछ गलती हो जाये तो माफ़ करना

Nikhil Aggrawal
MCA (III-A)

कुछ गलती हो जाये तो माफ करना।।
तुम हर बार सही मैं गलत।
हां तुम हर बार सही मैं गलत।
फिर भी तुम्हारा नज़रअंदाज़ करना।।
मेरा फिर भी तुम्हारे ऊपर मरना ।
कुछ गलती हो जाये तो माफ करना।।

वक़्त से पहले तुमको पूछना।।
एक बात करने के लिए तरसना।
तेरी हर एक मुस्कराहट में,
मेरी मुस्कान का छुपा होना।
कुछ गलती हो जाये तो माफ़ करना।

तुमसे बिन पूछे तुम्हे चाहना।।
मेरी इस गलती की सजा यही है।
के जो तुम्हारी आँखों मैं देखा था कभी।।
अब गुम किसी और के लिए कहीं है।
कुछ गलती हो जाये तो माफ करना।।

मेरा किसी और को न चाहना।।
ये गलती मेरी है न तुम्हरी।
तुम खुश रहो आबाद रहो जहाँ रहो।
न रहो तो बताना ज़रूर।
न कुछ कर सके अपने लिए।
कुछ कर सके तुम्हारे लिए, तो ज़रूर कहना।
कुछ गलती हो जाये तो माफ करना।

तेरी हर इबादत में सर झुका है मेरा।
जैसे झुके मंदिर-मस्जिद में।।
तेरी आँखों से पढ़ा था हमने खुद को भी कभी।
अब गुम है कहीं आखो के पर्दो के पीछे।।
कुछ गलती हो जाये तोह माफ करना।।

कॉलेज के दिन

Anamika Mani
MCA (III-A)

वो कॉलेज के दिन भी कितने हसीन थे,
मिलते थे दोस्त और मामले भी संगीन थे।

शुरू होती थी जब बातें, न ख़त्म होने का नाम था,
दोस्तों की महफिलों में मज़ा लेना बस काम था।
टीचर्स भी हो जाते थे परेशान, ऐसा कुछ ये ग्रुप बदनाम था।।

कोई थोड़ा, कोई ज्यादा, कोई बहुत ज्यादा करीब था,
उन कॉलेज के दोस्तों से मिलना मेरा नसीब था।।

Nikhil Aggrawal
MCA (III-A)

माँ घर का हर एक कोना होती है।।
माँ घर की हर एक चीज़ मै होती है।
माँ रसोई की रोटी होती है।
माँ घर का सुख होती है।।
माँ से ही सब कुछ होता है घर मे।।

जब जब माँ ने यूँ कहाँ।।
अगर मै चली गयी।
तो अकल ठिकाने आ जाएगी।।

अब चली गयी तो रह नहीं पा रहे आपके बिना।
ना जाने ज़िन्दगी कैसे कटेगी आपके बिना।।

रोना चाहते है माँ पर रो नहीं सकते।
तकलीफ बहुत है मगर किसी से कह नहीं सकते।।

मां अब चली गयी, तो अकल आ गयी अब ठिकाने।
अब तो आ जाओ ना मां बस एक बार किसी बहाने।।

तुम्हारी यादें

दुनिया के सारे बंधन तोड़ आया मैं,
फिर वापस जाना मुमकिन नहीं, एक ऐसे मोड़ आया मै।
हाँ जानता हूँ मेरे पावँ में ज़ख्म बहुत हैं,
लेकिन तूने था बुलाया, बस इसीलिए दौड़ आया मै।।

दिल में सारे ग़म दबाकर गुनगुनाता रहता हूँ मैं,
तुम्हारी याद्दों के सहारे सारी तकलीफें भुलाता रहता हूँ मै।
मुझे याद तो नहीं रहता, पर जनता हूँ मेरे सपनो में तुम ही आती हो,
क्योकि मेरे दोस्त कहते हैं कि सोते हुए भी मुस्कुराता रहता हूँ मैं।।

अंदाज़ा मेरी मोहब्बत का सब तब लगा लेते हैं,
जब बस तुम्हारा नाम सुनकर हम मुस्कुरा देते है।
इश्क़ में कहाँ कोई उसूल होता है,
यार चाहे जैसा भी हो, कुबूल होता है।
खता मत गिन कि कितना गुनाह किसने किया,
वो इश्क़ का गुनाह था, मैंने भी किया तूने भी किय।
बस एक तुम ही हो जिसका जवाब भी नहीं आता कभी,
बाकी लोग तो मेरी शायरियों पर तारीफों के पुल बना देते है।।

Brahm Dev Pandey
MCA (III-A)

O-PG
A ONE STOP ACCOMMODATION SOLUTION

O-PG A COMPLETE BROKER FREE RENTALS/SALE/PURCHASE OF HOUSE, ROOMS, HOTELS, PROPERTY WITHOUT FRAUD AND WITH THE COMMITMENT OF TRUTHFULNESS.

O-PG is the idea which is an application that works in the field of property and accommodation, whose main objective is to provide direct dealing between the landlords and owner or between the seller and the seller and the broker and their arbitrariness to work and to be deceived by them

O-PG has the ability to get you the perfect rental rooms, PLOT, SHOP, apartment and flat as per your requirement!

Where did this idea come from and why?

Finding a clean house, then asking someone or looking for a good tenant, then telling someone is horrible and time taking. Also, the owners do not know much about renters background and same applies to the renters side.

It is often found that the renters or the students do not know how to get a proper accommodation according to their requirements. Even they find one, they are often mislead by the brokers. Most of the times any rental room has to go through a documentation and some process of verification which is time taking and very inconvenient process.

The same thing also comes to the owners that often they do not know the background of their tenant.

O-PG is not limited to this context only. When it comes to selling and buying a property, O-PG protects you from property frauds as well as provides secure and safer place.

WORKING

O-PG provides interface for both the owner and the tenants. For owner, if someone wants to let their rooms for rent they can make sign-up on O-PG and give all details. For tenants, if someone wants to take room/property/shop for rent or want to purchase it, they can make sign-up on O-PG and find perfect match hustle free.

A strong database is required to be created in which all the relevant information is recorded, like nearby services, all available amenities like schools, colleges, hospitals, etc. and complete information to both sides – tenant and landlord.

Then how is O-PG different?

Most of the applications and many other types of services which are currently present in this field mostly rely on the brokers and mediator. But, O-PG provides 3 layered security to the process of renting.

Features of App

- Verification at administration level about their owned land and their pending and recent clearances.
- The O-PG team sends their team on Ground level to verify whether the information given by both ends is true or not.
- Collecting all nearby essential and non-essential services.
- A proper support for the clients after they have made some purchases or have rented an accommodation.
- Proper DOCUMENTATION made by O-PG for assistance from clients.
- Providing cloud space to the users, so that clients can save their documents on cloud and can access them whenever and wherever required.

With these features, O-PG will provide a proper platform to rent or sell property or accommodations to the landlords and the tenants/buyers.

Anuj Dubey
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Solar based IoT system for improving onion shelf-life in static and dynamic conditions

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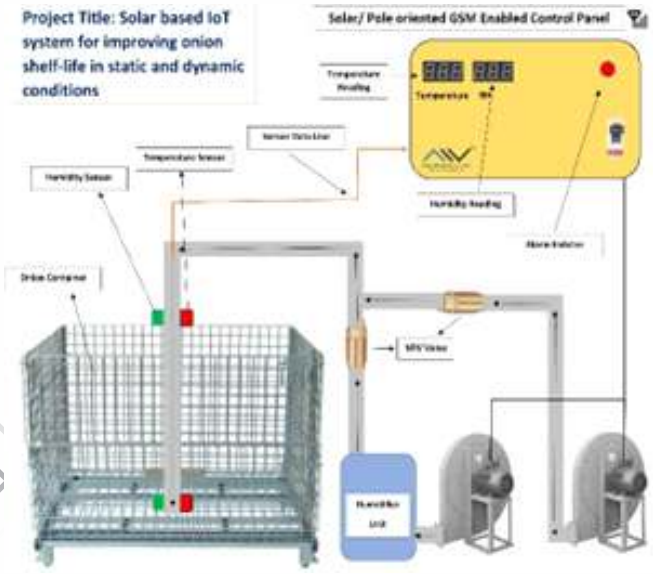
Abstract: The Internet of Things (IoT) is a computing concept that describes the idea of everyday physical objects being connected to the internet and being able to identify themselves to other devices. It majorly focuses on connection of different sensors to physical object and transmits information to internet. It has a significant role in the field of agriculture in terms of control and protection, providing real time information and communicating with the physical world. Internet of Things plays a vital role in smart agriculture monitoring system. Smart farming is an emerging concept, because IoT sensors are capable of providing information about physical parameters of crops either in field or stored in controlled conditions. Monitoring environmental factors is the major factor to decrease the economic loss due to post harvest degradation.

Onions are of major importance to the agriculture sector with an estimated world-wide production of 78.5 million metric tons. India ranks second in onion production in the world. Onion acquired 6% share in the production of vegetables in India. It has a wide impact on national economy and financial status of consumers/growers. Onions are susceptible to bacterial and fungal infections. The stored onions in sheds are exposed to the hot, cold and humid air and thus annual loss of 30 percent of onion has been reported due to degradation. This degradations of onion has been reported both during storage and during transportation. Looking in to this we have developed an improved IoT based technology that equally functional in both static as well as dynamic conditions.

The main feature of proposed technology is monitoring temperature and humidity in controlled storage system specifically for onions. This monitoring is done by using sensors and sending the message to the concerned person. It not only sends message but regulates the temperature and humidity in provided range using IoT based system. This whole system is solar based and thus energy saving. The main purpose of technology is to develop a onion storage methodology which will help to reduce onion degradation due to temperature and humidity.

Description: The Wireless Sensors Network (WSN) is nowadays widely used to build decision support systems to solve many real-world problems. One of the most interesting fields having an increasing need of decision support systems is agricultural environment monitoring. Storage environment monitoring has become an important field of control and protection, providing real-time system and control communication with the physical world to prevent post-harvest loss during storage. An intelligent and smart IoT based system can collect and process large amount of data from storage devices. The proposed system collects and monitors information of temperature and humidity inside storage can or device using sensors that are very reliable. Furthermore, the system allows automatic control of storage environment remotely and thus improves the shelf-life of onion. This proposal provides hardware architecture, system architecture and software process control of the onion storage environment monitoring and controlling system.

The post-harvest onion storage methodology is designed and implemented to reduce its degradation. The objectives of this quality of onion using this system is to sense the temperature, and humidity with the help of the temperature and humidity sensor, activates the regulatory device to maintain optimum conditions of

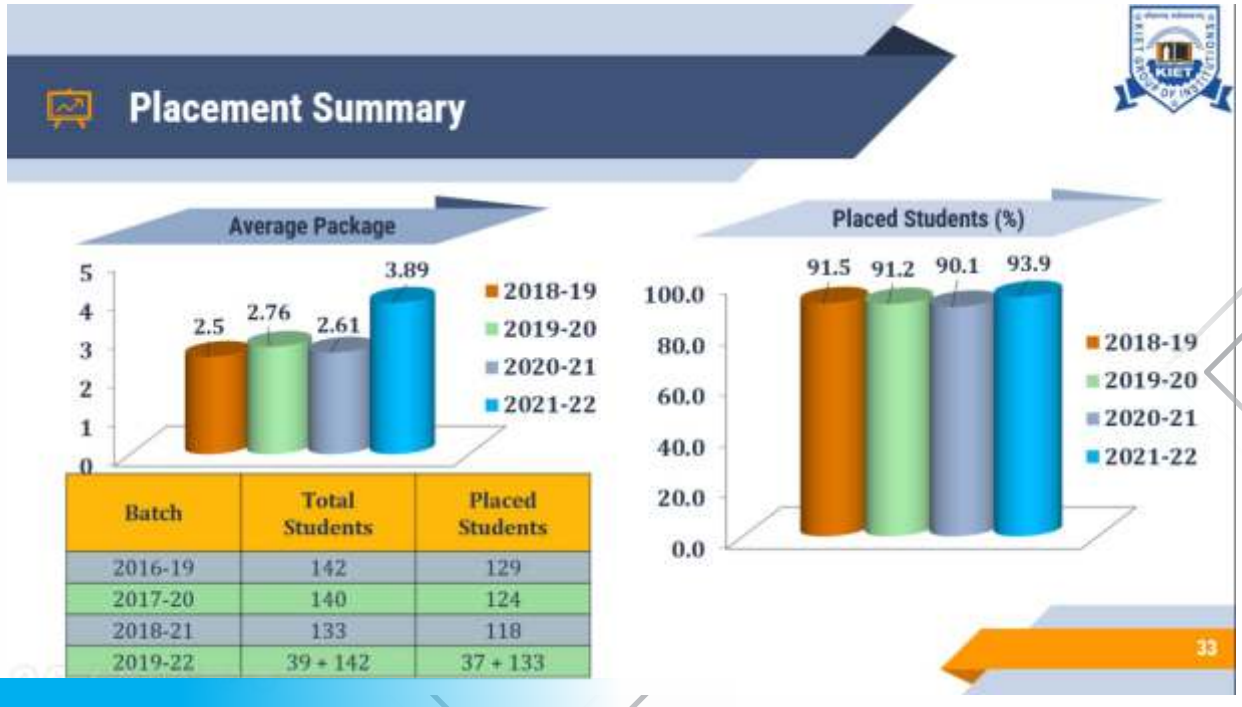


mobile numbers stored inside the program. The system works on the principle of sensing physical parameters as temperature and humidity and attempting to control them within the desired parameter range of temperature and humidity and also gives an online record observation facility.

In proposed technology, the quality and quantity of onion are maintained by using a cooling system that is monitored using IoT. The GSM module is used to send monitored data to the user at any remote location. Temperature controlling is Jthe most challenging part of the system as the external environment impacts on inner tank temperature. An entire system can be divided into two parts.

- **Maintaining Temperature inside the storage tank (25-30˚C)**
- **Maintaining Humidity inside the storage tank (RH 60-65%)**

Maintaining temperature and humidity is one of the major tasks. The cooling system is used to decrease the temperature inside the tank but as soon as the temperature increases again, the cooling module is turned on. If for any reason temperature goes below the prescribed range, the heating module is turned on. Similarly sensor also senses humidity as it goes out of proposed range and brings it to the normal range using controlling module.



Batch	Total Students	Placed Students
2016-19	142	129
2017-20	140	124
2018-21	133	118
2019-22	39 + 142	37 + 133

Photo Gallery

Photo Gallery

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