



NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College, Affiliated to VTU | Approved by AICTE New Delhi & UGC
Accredited by NAAC with 'A' Grade & Accredited by NBA

DEPARTMENT OF INFORMATION
SCIENCE AND ENGINEERING

I-NEWS

NEWSLETTER

2020 SEP - 2021 FEB

VOLUME - 6

ISSUE - 1

ABOUT THE DEPARTMENT

Information Science and Engineering department focuses on current Information Technology trends, and Domain-Specific Applications. The program facilitates the evolution of skills in students to help them attain a higher degree of knowledge, global competency, and excellence, for the betterment

of society. The Department of Information Science and Engineering at NHCE was established in the year 2001 and offers graduate, post-graduate, and Ph.D. programs. The four-year B.E degree equips the students to meet day-to-day Technological advancements of the ever dynamic IT field through adept training in various subjects of the curriculum of Information Science and engineering and beyond. The department offers a B.E program through an autonomous scheme from the year 2015 and intake increased to 180 students in the year 2019. The department has a very good team of highly qualified and talented faculty members including Professors, Associate Professors, and Assistant Professors. The present strength of our department is 598 of 2021 batch.

VISION

To emerge as a Department of eminence in Information Science and Engineering in serving the Information Technology industry and the nation by empowering students with a high degree of technical and practical competence.

MISSION

- To strengthen the theoretical, practical and ethical dimensions of the learning process by continuous learning and establishing a culture of research and innovation among faculty members and students, in the field of Information Science and Engineering.
- To build long-term interaction between the academia and Information Technology industry, through their involvement in the design of curriculum and its hands-on implementation.
- To strengthen and mould students in professional, ethical, social and environmental dimensions by encouraging participation in cocurricular and extracurricular dimensions by encouraging participation in co-curricular and extracurricular activities.

MESSAGE FROM PRINCIPAL



It gives me great pleasure to give my best wishes to i-News, a newsletter from the Department Of Information Science and Engineering Of New Horizon College Of Engineering, Bengaluru. The students and faculties of the department are always proactive in taking initiative in organizing all kinds of events. I congratulate all achievers, contributors and editorial board for bringing out such an informative newsletter. I hope this newsletter reflects all activities Of the department and inspires Others to do their best.

MESSAGE FROM HOD



'Neither we can make yesterday better nor you can control what will come tomorrow. But today is a gift. you can do your best.' I am very pleased to present the newsletter i-News Of ISE Department, New Horizon College Of Engineering, Bengaluru. This new endeavor is the result Of the efforts put in by a a dedicated team of teachers and students. We provide opportunities for students to organize and participate in various curricular, co-curricular and extra-curricular activities through various club activities. This newsletter offers a platform for showing our activities and sharing our milestones achieved by our department. convey my best wishes to students and congratulate entire teary' of faculties and editors for making this issue exciting and interesting.

ACHIEVEMENTS



VMWARE IT ACADEMY – STUDENT ACTIVITIES AND PLACEMENT OPPORTUNITIES

- VMware IT Academy is designed to introduce the students to virtualization and storage concept and equip them with technical skills needed for modern IT world.
- 2000 students attend VMware virtualization programs where the students have been trained on VMWARE vSphere 6.5 and given digital batches.
- 13 students have been selected to avail a free voucher code (worth of 100 USD) from VMware to become VCTA –DCV certified.
- 80 students from Dept of ISE & CSE took part in VMware hands-on lab experience program on 6th, 9th and 11th August 2021.
- This hands-on experience program is a part of VMware Nalanda (Powered by VMware IT Academy and Women in Tech).
- Through VMware Nalanda program out of 80 students 33 students are shortlisted for interview

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING UNNAT BHARAT ABHIYAN – WINNERS OF POSTER MAKING EVENT

**Shreya Narayan Sabhahit
(INH19ISE154)**



**Ankita Prashant Naik
(INH19ISE205)**





राष्ट्रीय सुरक्षा डेटाबेस NATIONAL SECURITY DATABASE

Initiative of Information Sharing and Analysis Center | Non-Profit



प्रमाणित साइबर अपराध हस्तक्षेप अधिकारी CERTIFIED CYBER CRIME INTERVENTION OFFICER

The Cybercrime Intervention officer is a volunteer registered with ISAC who can assist the victims and law enforcement agencies as a First Responder.

Rimi Sarkar | CCIO ID: 194519000003232443 10587

Govt ID:6706 3842 1158 | Issue Date: 03-08-21 | Specialist: First Responder



सूचना साझाकरण और विश्लेषण केंद्र

www.isacindia.org | support@isacindia.org | [@isacindia](https://twitter.com/isacindia) | <http://fb.me/isacindia>



Halasuru, Karnataka, India

14, Cambridge Rd, opp, Halasuru, Karnataka 560008, India

Lat N 12° 58' 28.56"

Long E 77° 37' 31.6092"

03/03/21 01:10 PM

ARTICLES

METaverse



Metaverse - The New Reality

“When new things emerge in our world, it’s best to put some time into researching them and trying to gain an understanding. With that understanding, you’re then able to think about and plan for the new business applications for those things and the new ways in which your business may profit from them.”

By Rovin Thomas James
Dept. of ISE, Sem 1V Sec C

Introduction

The metaverse is a concept of a persistent, online, 3D universe that combines multiple different virtual spaces. You can think of it as a future iteration of the internet. The metaverse will allow users to work, meet, game, and socialize together in these 3D spaces. To make things easier for the general user to understand, mentally replace the phrase “the metaverse” in a sentence with “cyberspace.”

The term doesn’t really refer to any one specific type of technology, but rather a broad and often speculative shift in how we interact with technology. And it’s entirely possible that the term itself will eventually become just as antiquated, even as the specific technology it once described becomes commonplace.

The metaverse will be driven by augmented reality, with each user controlling a character

or avatar. For example, you might take a mixed reality meeting with an Oculus VR headset in your virtual office, finish work and relax in a blockchain-based game, and then manage your crypto portfolio and finances all inside the metaverse. Some aspects of the metaverse exist in virtual world video games such as Fortnite, and Second Life or work socialization tools like Gather.town bring together multiple elements of our lives into online worlds.

While these applications are not the Metaverse, they are somewhat similar. It will combine economies, digital identity, decentralized governance, and other applications. Even today, user creation and ownership of valuable items and currencies help develop a single, united metaverse. All these features provide blockchain the potential to power this future technology.



Applications of the metaverse

Video games:

Due to the emphasis on 3D virtual reality, video games offer the closest metaverse experience currently. Video games now offer services and features that crossover into other aspects of our lives. The video game Roblox even hosts virtual events like concerts and meetups. Players don't just play the game anymore; they also use it for other activities and parts of their lives in "cyberspace". For example, in the multiplayer game Fortnite, 12.3 million players took part in Travis Scott's virtual in-game music tour.

Crypto:

Crypto can offer other key parts required, such as digital proof of ownership, transfer of value, governance and accessibility. If, in the future, we work, socialize, and even purchase virtual items in the metaverse, we need a secure way of showing ownership. We also need to feel safe transferring these items and money around the metaverse.

Finally, we will also want to play a role in the decision – making taking place in the metaverse if it will be such a large part of our lives. Blockchain developers also take influence from the video game world too. Gamification is common in Decentralized Finance (DeFi) and GameFi. It seems there will be enough similarities in the future that the two worlds may become even more integrated.

Examples of the metaverse

Axie Infinity

Axie Infinity is a play-to-earn game that's provided players in developing countries an opportunity to earn consistent income. By purchasing or being gifted three creatures known as Axies, a player can start farming the Smooth Love Potion (SLP) token. When sold on the open market, someone could make roughly \$200 to \$1000 (USD) depending on how much they play and the market price.



SecondLive

SecondLive is a 3D virtual environment where users control avatars for socializing, learning, and business. The project also has an NFT marketplace for swapping collectibles. In September 2020, SecondLive hosted Binance Smart Chain's Harvest Festival as part of its first anniversary. The virtual expo showcased different projects in the BSC ecosystem for users to explore and interact with.

Future of the metaverse

Facebook is one of the loudest voices for the creation of a unified metaverse. This is particularly interesting for a crypto-powered metaverse due to Facebook's Diem Stablecoin project. Mark Zuckerberg has explicitly mentioned his plans to use a metaverse project to support remote work and improve financial opportunities for people in developing countries. Facebook's ownership of social media, communication, and crypto platforms give it a good start

combining all these worlds into one. Other large tech companies are also targeting the creation of a metaverse, including Microsoft, Apple, and Google

When it comes to a crypto-powered metaverse, further integration between NFT marketplaces and 3D virtual universes seems like the next step. NFT holders can already sell their goods from multiple sources on marketplaces like OpenSea and BakerSwap, but there isn't yet a popular 3D platform for this. At a bigger scale, blockchain developers might develop popular metaverse-like applications with more organic users than a large tech giant.

Conclusion

While a single, united metaverse is likely a long way off, we already can see developments that may lead to its creation. But in the meantime, we can already experience metaverse-like projects and continue to integrate blockchain more into our daily lives.

THE FUTURE OF IOT AND AI

The future is already here and it is all about Artificial Intelligence and the Internet of Things working together. Today, we have smart cars, smartwatches, voice assistants, and mostly everything with respect to the technological aspect based on AI and IoT. The perfect illustration of the progress made in these fields can be seen simply by looking around.

For example, the smartwatches we wear give us more information about ourselves and our day-to-day tasks than ever. Now, with the voice recognition feature, we don't have to use "Hey Siri" or "Hey Google" and it just gets better with every passing day. According to studies, AI and IOT have already been very much beneficial with respect to boosting economies. They do not just make our lives easier but AI and IoT have started to work collaboratively to bring out technologies never thought of before. AI basically is the technology that resonates with the work of a human or an animal with respect to their emotions and behavior. This means it programs machines to behave and function like humans and animals.

They do not just make our lives easier but AI and IoT have started to work collaboratively to bring out technologies never thought of before. AI basically is the technology that resonates with the work of a human or an animal with respect to their emotions and behavior. This means it programs machines to behave and function like humans and animals. A very interesting project from AI is a dog named AIBO which develops a new personality over time and communicates with the owner. Whereas, IoT is a network connecting devices with each other being wireless using sensors. A very simple example of this is wireless LED lights. Now, combining both things gives us a new power called Artificial Internet of Things which with the help of machine learning algorithms stores the data and keeps on updating the data. So, what the devices will do is they will take charge of their own actions without any human involvement. These devices are the future which has already come into the picture. What would it be if there is no human interaction in traffic signals? Well, china already has an AI and IOT automated system which controls the traffic, notices illegal parking, and changes the traffic signals when required without any human involvement.

How fascinating would it be if this happens worldwide. And what about smart offices where there are smart rooms which will adjust the room temperatures so that everyone is comfortable. How interesting and comfortable would that be? So, we know that the future is AI and IOT and we are gradually making our way towards future and I hope these technologies make human life easier and much more comfortable.

- By Sayantan Pakrey
Dept. of ISE, Sem IV , Sec D

CYBER SECURITY

Cyber Security

Cyber security is the application of technologies, processes, and controls to protect systems, networks, programs, devices, and data from any form of cyber attack. The main aim is to protect the data against unauthorized exploitation of systems, networks, and technologies.



With the growth of digital mediums and technologies, the potential for the threats that people can face is rising, because of this cyber security has grown extensively. The global cyber security market was valued at USD 139.77 billion in 2021. The market is projected to grow from USD 155.83 billion in 2022 to USD 376.32 billion by 2029, exhibiting a CAGR(compound annual growth rate) of 13.4% during the forecast period.

The international data corporation (IDC) forecasts that worldwide cyber security spending will reach 174.7 billion dollars in 2024, with security services the largest and fastest-growing market segment. The rise in cyber attacks, especially ransomware has fuelled the cyber insurance market.

The objective of Cybersecurity is to protect information from being stolen, compromised, or attacked. Cybersecurity can be measured by at least one of three goals-Protect the confidentiality of data, Preserving the integrity of data, and Promoting the availability of data for authorized users. These goals form the confidentiality, integrity, and availability (CIA) triad, the basis of all security programs. The CIA triad is a security model that is designed to guide policies for information security within the premises of an organization or company. This model is also referred to as the AIC (Availability, Integrity, and Confidentiality) triad to avoid confusion with the Central Intelligence Agency. The elements of the triad are considered the three most crucial components of security.

The cybersecurity section is a dynamic section and it is becoming increasingly complex everyday and is necessary for the security providers to update themselves with the need of today. The driving factors of cybersecurity include- the rising number of E-commerce platforms to drive the market growth, increasing adoption of network security by SMEs to lead to market dominance, and rising demand for robust security and digital privacy systems across the BFSI industry to boost the market growth.

Job Prospects

According to the US Bureau of labor statistics information security analyst outlook cybersecurity jobs are among the fastest-growing career areas nationally.



HARSHA S
1NH1915130
ISE dept, NHCE

I-CSEH CLUB



KNOWBE4 - A webinar on "Data Science in Cyber Security"

Date: 19/10/2020

Time: 10:00 AM To 11:00 AM

i-CSEH CLUB of Information Science and Engineering Department of New Horizon College of Engineering has conducted an event "KNOWBE4" - a webinar on "Data Science in Cyber Security", on 19th of October 2020. The speaker of the event was Mr. Debabrata Sharma, Senior Principal Software Engineer, Symantec, California. The 5th semester students of Information Science and Engineering Department, took part in the event. All the students who attended the webinar showed immense interest and enthusiasm and were motivated to learn new things. E-certificates were provided to all the participants.

I-SCRUM CLUB



NEW HORIZON
COLLEGE OF ENGINEERING



**The Department of Information Science and Engineering
Student Club for Research Utilizing Meta knowledge
Presents**

**ONLINE WORKSHOP ON
HANA: IN-MEMORY DATABASE AND CLOUD COMPUTING**

Speaker



Madhu S.K.
Senior SAP HANA/Cloud Administrator,
Forcepoint, Ltd., Bengaluru.

Date

17th December 2020

Time

11:00am - 01:00pm

Join the link below!

<https://us04web.zoom.us/j/73173742126?pwd=b3RRS1Bwdkg2NGRyOGhYYkZ2YitnQT09>

i-SCRUM club Workshop on "HANA: In-Memory Database And Cloud Computing"

● DECEMBER 17, 2020

The i-SCRUM club of Department of Information Science and Engineering conducted an online workshop, "HANA:IN-MEMORY DATABASE AND CLOUD COMPUTING" on 17th December 2020 from 11.00 am to 1.00 pm for the 5th semester students of Information Science and Engineering Department via zoom meeting.

The resource person of the event was Mr. Madhu. S. K who is currently working as a Senior SAP HANA/Cloud Administrator in Forcepoint, Ltd., an American multinational corporation software company that develops computer security software and data protection, cloud access security broker, firewall and cross-domain solutions.

In this interactive event, students were eager to learn how to use SAP HANA Cloud in their future projects and asked questions regarding the topic. Mr. Madhu concluded the session by advising students to take required online courses to learn more about SAP database and AWS. This online session was helpful for the students to learn the latest trends in database and cloud computing.

NOTE CLUB

NOTE CLUB Design Overflow

Date: 08/11/2020

Time: 11:00am

NOTE club of Information Science and Engineering Department has conducted a national level UI Design based hackathon called "DESIGN OVERFLOW" from 08-11-2020 to 12-11-2020. The finale was conducted on 12-11-2020 from 11AM-2PM.

The expert guides, Sucharitha Venkataramana Reddy , Working as a Consulting Engineer with Cisco, Dr. R J Anandhi, Professor and Head of Information Science Department, Mrs. Rafega Beham, Senior Assistant Professor and Mr. Gautam, Senior Assistant Professor shared their knowledge and experience.

In the Grand Finale each team were given 3 minutes of time for presenting and 2 minutes of time for any queries from the judges or participants.

VMWARE CLUB

VZards 2020 vmware club

● **Date NOVEMBER 21, 2020**

VZards 2020 was conducted online by VMware IT Academy of information science and engineering department. The event consisted of three rounds namely:

- **Quizcalls**
- **Code-o-fiesta**
- **Trivia Buzzer**

The First Round quizcalls was the quiz conducted on Kahoot which consisted questions based on cloud, aptitude, logo and technical questions.

The Second Round Code-o-fiesta was a purely coding and a debugging round conducted through zoom where the participants had to code the given output and answer 5 debugging questions.

The Third Round Trivia Buzzer conducted on zoom where the participants were given a pdf on the topic virtualization and were given 45 mins to go through the pdf.

Then the participants had to answer the rapid fire questions. The fastest and the highest scorer were declared the winner

QUBYTES



NEW HORIZON
COLLEGE OF ENGINEERING
Autonomous College, Affiliated to VTU | Approved by AICTE New Delhi & UGC
Accredited by NAAC with 'A' Grade & Accredited by NBA



50 Golden Years
YEARS OF EXCELLENCE IN EDUCATION

**DEPARTMENT OF INFORMATION
SCIENCE AND ENGINEERING**

PRESENTS

TECH SHARK

IN ASSOCIATION WITH QUBYTES 2020
AN INTER COLLEGIATE TECH FEST

ON THE 23RD OF SEPTEMBER

**PROVE YOUR TECH KNOWLEDGE &
OUT SELL THE SHARKS**

ROUND 1 - AIR CRASH
ROUND 2 - SHARK TANK

E - CERTIFICATE WILL BE GIVEN
TO EVERY PARTICIPANT

REGISTER HERE -
<https://forms.gle/GQMwrrp6TxAty5bML7>



KEEP IN TOUCH WITH
krtin - 6363554632
malvika - 9620817489

QUBYTES-2K20 : An Online Inter Collegiate Tech Fest

Date: 23/09/2020

Time: 1:00 pm

Department of Information Science and Engineering, New Horizon College of Engineering, in association with Computer Society of India (CSI) organized an Online Inter Collegiate Technical Fest "QUBYTES-2K20", from 23/09/20 to 25/09/20 between 1:00 pm to 5:00 pm.

Multiple events were organized in coordination with the different clubs under ISE Department in the fest giving exposure for nurturing all round development of the students. The fest inspired to bring forth student's creative insight in the fields of technology and science. There was no registration fee and was open to all students from various engineering colleges in Karnataka.

EDITORIAL COMMITTEE MEMBERS



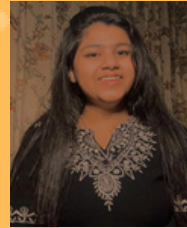
Poorvi J



Aditi Rao



Deepak T



Sukriti S



Suraj A



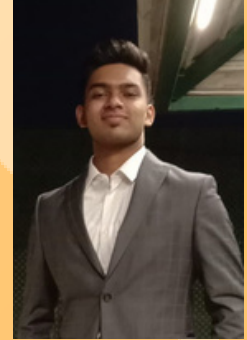
Yukthaa S



Likith Rama

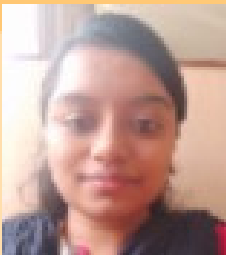


Praneeth S



Rovin James

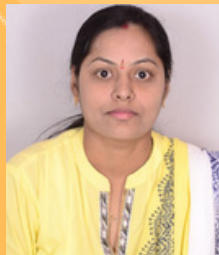
STAFF ADVISORY COMMITTEE



K M Bilvika



Lohitha M



Krishnaveni



Vandana C P



M S Shoba



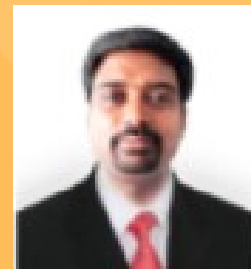
Divya K V



Mounica B



Shruthi G R



Dr. Sreenivas