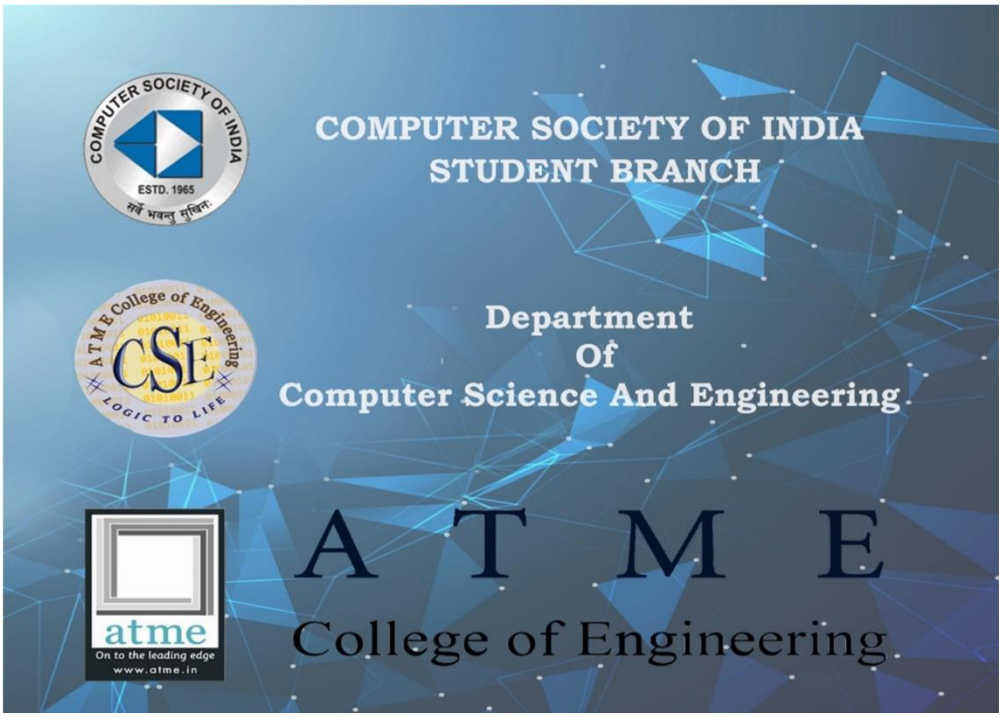


Tech Bits

CSI Newsletter

Volume 5
Issue 2
6th July 2021

In This Issue

Mr. Ratan Tata

A member of a prominent family of Indian industrialists and philanthropists (see Tata family), he was educated at Cornell University, Ithaca, New York, where he earned a B.S. (1962) in architecture before returning to work in India. He gained experience in a number of Tata Group businesses and was named director in charge (1971) of one of them, the National Radio and Electronics Co. He became chairman of Tata Industries a decade later and in 1991 succeeded his uncle, J.R.D. Tata, as chairman of the Tata Group.Upon assuming leadership of the conglomerate, Tata aggressively sought to expand it, and increasingly he focused on globalizing its businesses. In 2000 the group acquired London-based Tetley Tea for $431.3 million, and in 2004 it purchased the truck-manufacturing operations of South Korea's Daewoo Motors for $102 million

CSI Timeline 2021-2022

The Department of Computer Science and Engineering under Computer society of India Division one and Computer Society of India Student Branch had organized 'Technical Talk ' on "Amazon web services(AWS)" dated 30th October 2021.Webinar on "Unlock your Data with Data Science" through online on 20th July 2021 and Zonal level quiz Competition through online on 07th August 2021. Election for Executive members was conducted.

Student articles on recent trends in Technology

Find articles on Computer Networking, Oracle - The new face of cloud database, Amazon Web Services, Wipro submitted by our beloved CSI - SB members.

Message from the HOD

"I am very happy to know that our CSI- Student branch with more than 300 student members is bringing its ***4th edition*** *of the CSI newsletter-"Tech Bites" and also on behalf of* ***8th Anniversary of CSI****.*

Besides giving opportunities for various activities under CSI student branch, the CSI newsletter "Tech Bites" would provide the platform for the student community to bring out and enhance their writing skills and develop positive attitude in their life. I would like to congratulate and wish the very best to the students, Editorial team, CSIstudent counsellor and faculty members of the departmentin all their endeavours."

Dr. Puttegowda D
Head of the Department
Computer Science and Engineering
ATME College of Engineering

CSI Timeline 2020-2021

Report on Hackfest- 2021

Two days National level hackathon (online)

[2nd& 3rd July 2021]

The Department of Computer Science & Engineering had organized 2 days' National level hackathon(online) on 2nd and 3rd July 2021.

The objectives of the hackathon were:

- To provide space for students to showcase their technical skills.
- To provide a platform for creating solutions for social causes
- To inculcate teamwork spirit among students.

40 teams across the country enrolled in the national level hackathon and here is the list of colleges that participated in hackfest-2021.

1. P D A College of Engineering, Gulbarga, Karnataka
2. ATME, College of Engineering, Mysore, Karnataka
3. B.M.S. College of engineering, Bengaluru, Karnataka
4. Maharaja Institute of Technology Thandavpura, Mysore, Karnataka
5. Panimalar institute of technology, Padarithangal, Tamil Nadu
6. The National Institute of Engineering, Mysore, Karnataka
7. Kongu engineering college, Erode, Tamil Nadu
8. KLS Gogte Institute of Technology, Belgaum, Karnataka
9. Brainware university, Kolkata, West Bengal

10. Knowledge Institute of Technology, Selliampalayam, Tamil Nadu

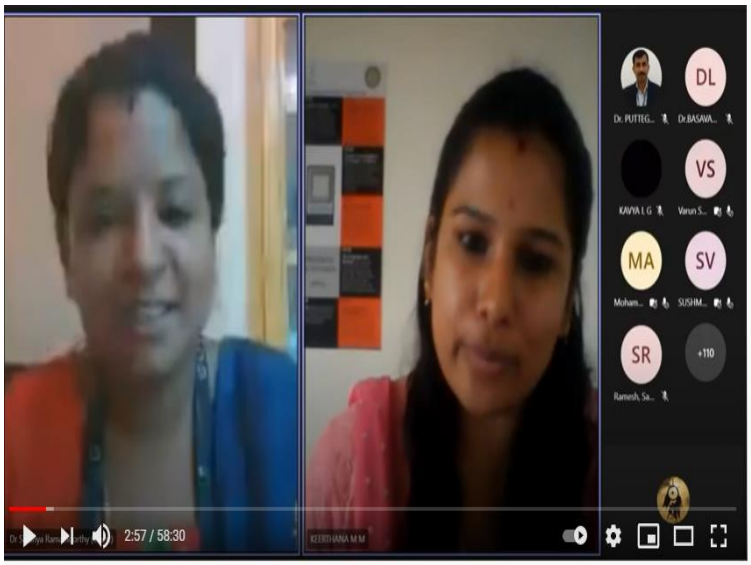
11. Yeshwantrao Chavan College of Engineering, Nagpur, Maharashtra

Day 1: 02/07/2021

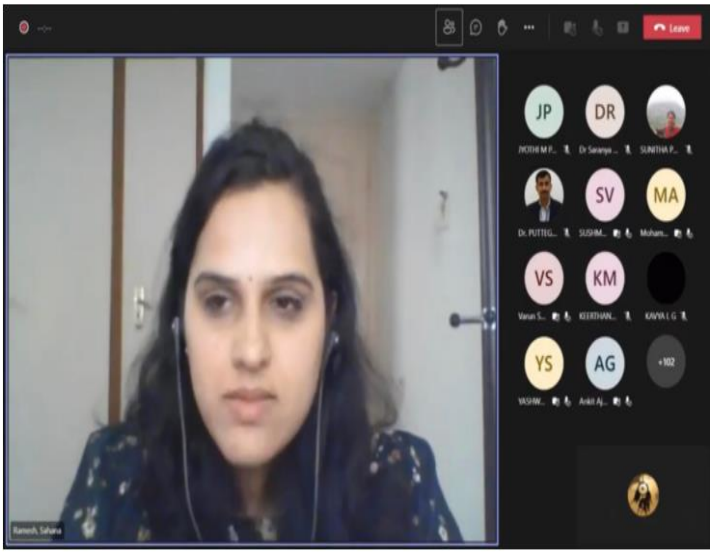
The inauguration was held at 10 AM. Dr. Puttegowda D Professor. and Head, Department of Computer Science and Engineering, welcomed the guests and participants. The invocation was rendered by Kavya L G, 4th Semester student, followed by the lighting of lamp as a symbol of brightness and prosperity.

The Chief Guest for the event was Dr. Saranya, customer success manager GUVI Chennai and the Guest of honour: Mrs. Sahana Ramesh, business management professional Sony India. Dr. Saranya addressed audience about the importance of hackathon and emphasized on the importance of getting placed in product-based company.

Mrs. Sahana Ramesh in her speech highlighted on the smart work than the hard work. She emphasized on the importance on teams focus areas such as customer electricity, core technology support and digital process enablement. The hackathon report was read by Mr. Anil Kumar C J, Associate professor, Department of CSE. Dr. L Basavaraj, Principal, ATMECE, in his presidential speech motivated students and stated that events like hackathons will help in updating their skills and knowledge. He also congratulated all the participants in the event. Vote of thanks was proposed by Mrs. Akshatha A, Assistant professor, Dept. of CSE.



Chief guest, Dr. Saranya addressing the Audience



Mrs. Sahana Ramesh addressing the Audience

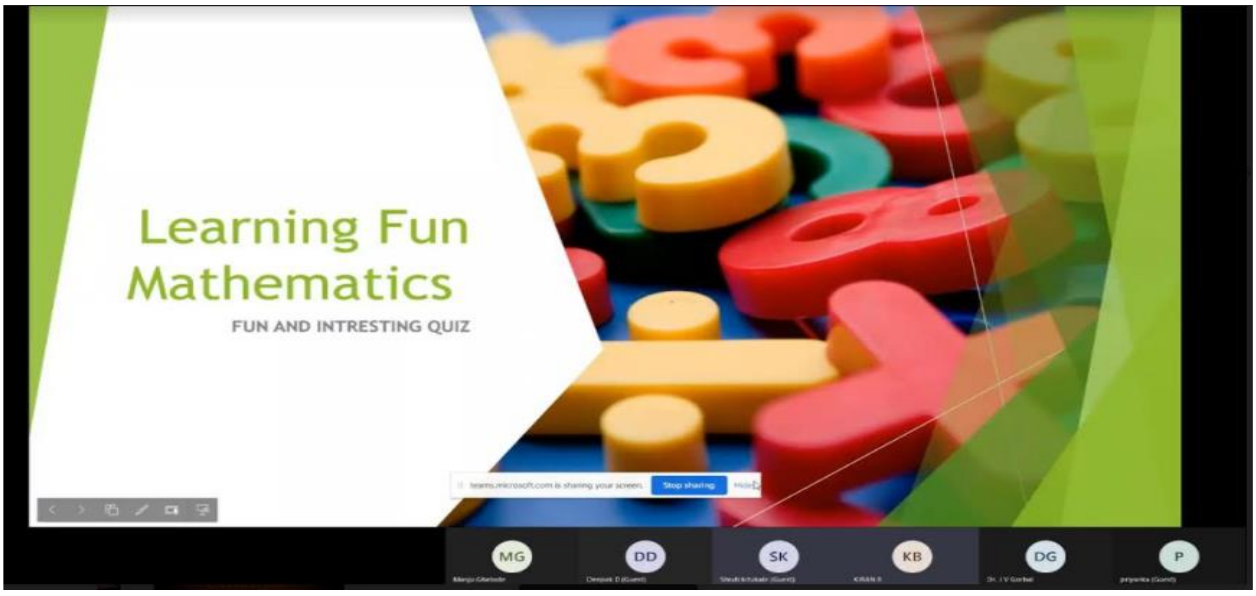
Presidential speech by Dr. L Basavaraj, Principal, ATMECE, Mysuru

After the Inauguration the event started and students started coding.

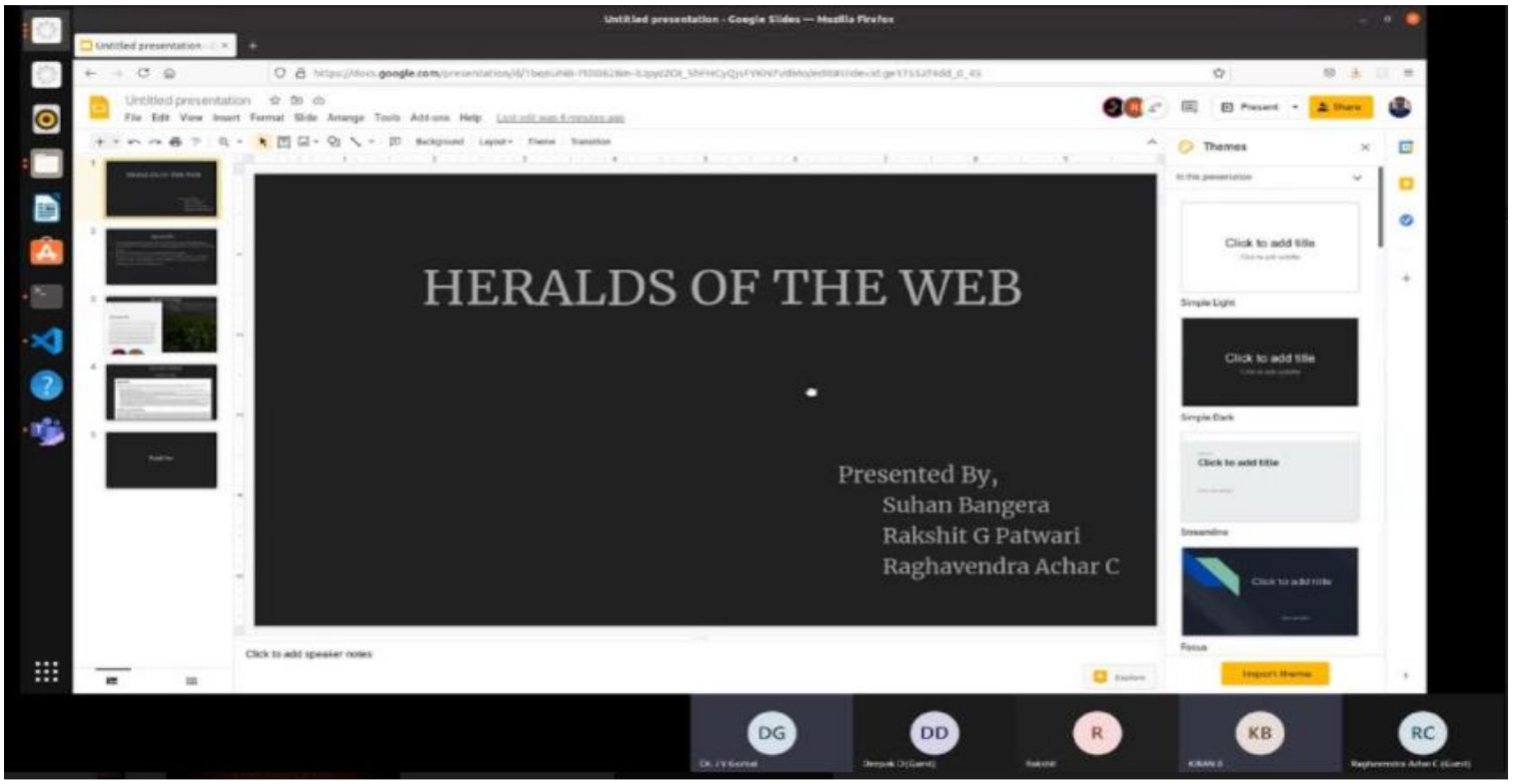
In continuing the event, at 3 PM, the first round of evaluation was carried out by the judges. The external judges were Mr. Santosh Kumar J and Mr. Santosh B from VHU Technologies, Bengaluru and Mr. Deepak and Mr. Hemanth Kumar from Rubix technologies, Bengaluru.

Snapshots of the teams presenting their ideas.

The team Strickers presenting their ideas.



The team learning fun mathematics presenting their ideas



The team Heralds of the web presenting their ideas

The students presented their ideas using PPTs and there by developing a mobile application.

Day 2: 03/07/2021

The event started Second round of evaluation at 10:00 AM, Top 8 teams were shortlisted based on their skills and work. The coding continued till evening 3:30 PM. The Final around of evaluation was done from 3:30 PM and top 2 teams were selected.

The Valedictory function was held at 6:30 PM. The chief guest Smt. K A Anitha Venkatesh, state student coordinator CSI, Karnataka and guest of honour Prof. Mohamed Minaz, chairman, CSI, Mysore chapter congratulated all the winners of the event and the participants. Mr. Anil Kumar C J, Associate Professor and event coordinator announced the winners. The winners of the event received the cash prize of rupees 8,000 for first prize and rupees 4,000 for second prize.

The winners were as follows:

1st prize: **Team- Coding Geeks**

Participants- Thari Zephaniah, Nithin Kumar, Soumya Surendra

College- Indian institute of information technology and management, Gwalior

2nd prize: **Team- Buzzinga**

Participants- Goutham M, Dhanjaya S

College- KSIT, Bengaluru

Dr. Puttegowda D Professor. and Head, Dept. of Computer Science and Engineering in his presidential speech, congratulated the winners and thanked all the participants and organizers. The event concluded in vote of thanks by Mr. Kiran B, Assistant professor, Department of CSE.

Sample certificate

ATME College of Engineering

ATME College of Engineering
13th Kilometre, Mysore - Kanakapura - Bangalore Road. Mysore - 570 028

Department of Computer Science and Engineering

Certificate

This is to certify that Mr./Ms **Olichia Prijit B** _____

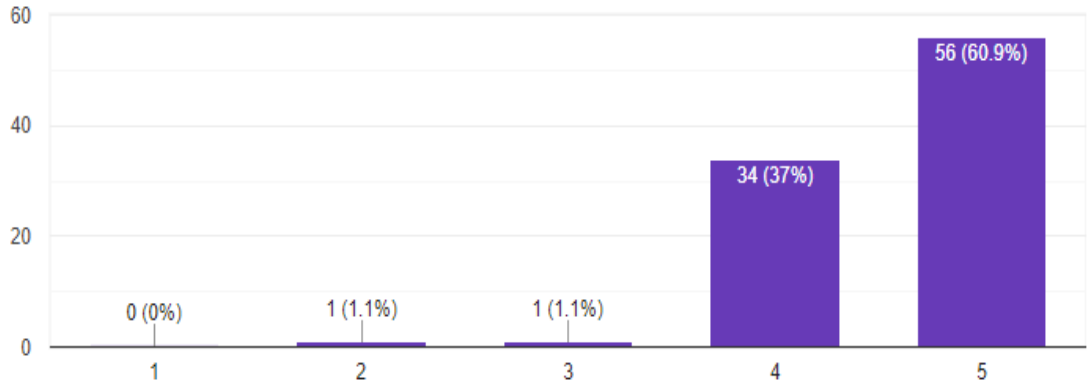
of _____ **Knowledge Institute of Technology** _____ has successfully participated in HACKFEST-2021, Two days' national level hackathon organized by department of Computer Science and Engineering under CSI student branch, held at ATME College of Engineering, Mysuru on 2nd and 3rd July 2021.

Anil Kumar C J
Convener SBC CSI-SB
ATMECE, Mysuru

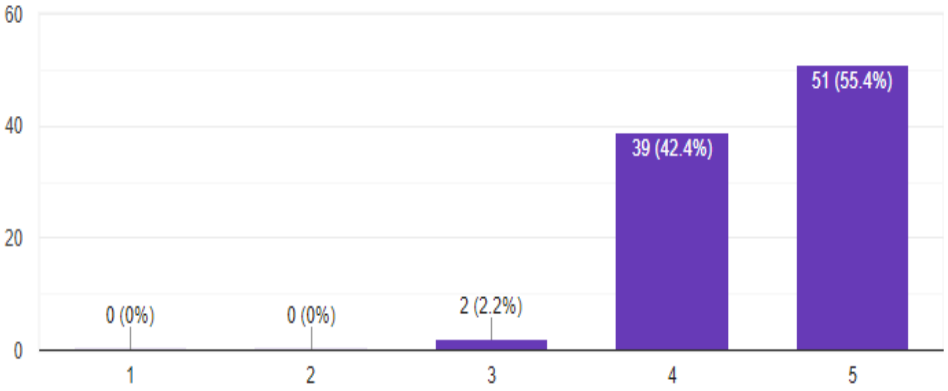
Dr. Puttegowda D
Prof & HoD
Dept. of CSE

Dr L Basavaraj
Principal
ATMECE

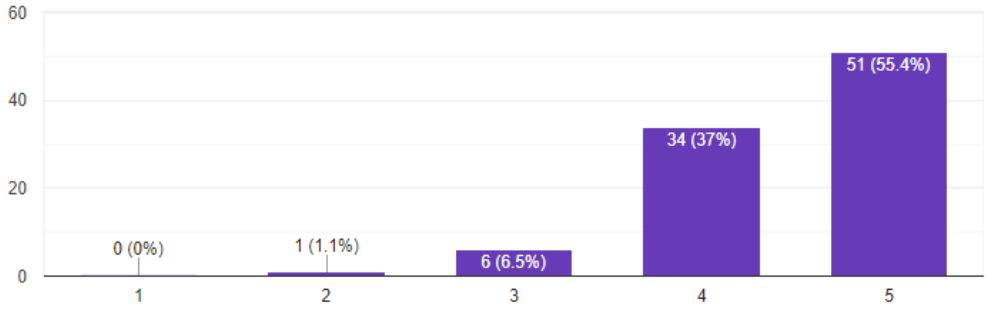
Question: Was the hackfest helpful for you



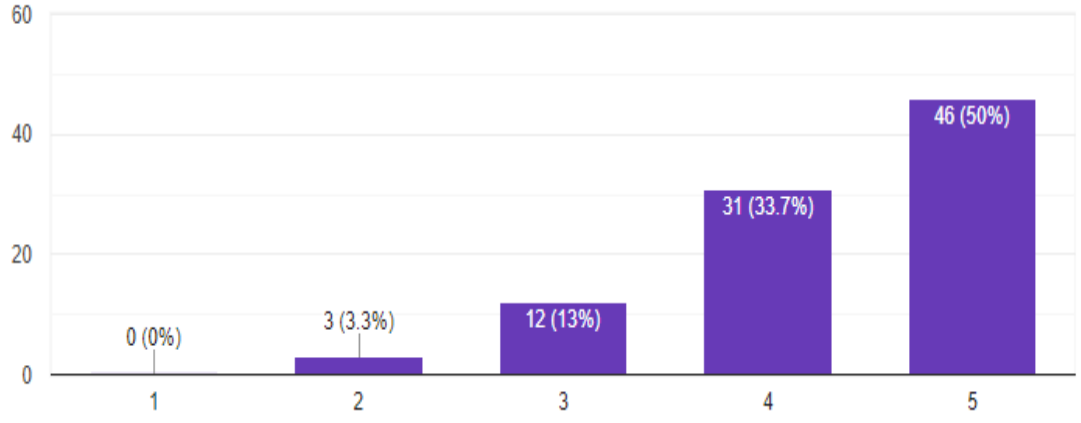
Question: Is the Objective of the hackfest is clearly set



Question: How was the judgmental of all juries throughout the hackfest



Question: Was the Hackfest well organized and executed



Cisco: Protecting 150 years of service to the community

Apoorva S R,7th Sem,CSE

Sources: internet

CISCO Networking Academy Program is the only flagship CISCO Global CSR program been executed across World. Cisco Networking Academy transforms the lives of learners, educators and communities through the power of technology, education and career opportunities. Available to anyone, anywhere.

Cisco Networking Academy provide access to industry-relevant curriculum and content in areas of Networking, Cyber Security, Programming, IoT, Programmable Infrastructure, Linux and General IT are available at zero cost to institutions and students.

NIIT Foundation (NF) is a not-for-profit education society (NGO) set up by the promoters of NIIT in 2004. Its mission is to positively impact the underprivileged of the country through educational initiatives and skill development programs. NIIT Foundation, an Education NGO has a mandate to reach the unreached, uncared

NDG Linux Unhatched

The “start from scratch” Linux course – Ever considered a career in Linux? Or, stuck in a dead-end job and exploring options for a career change? NDG Linux Unhatched allows students to wade into the shallow end of Linux, the back-end operating system used by global titans such as Facebook, Google, Microsoft, NASA, Tesla, Amazon and more. Graduates walk away with a clear understanding of whether Linux is for them or not, without having to commit to more than 8 total hours of self-paced learning. To ensure you don’t get stuck, you’ll be guided step-by-step through a series of hands-on virtual machine activities. The course aligns well with the Linux exam objectives found on the CompTIA A+ Certification. After this course, we suggest taking either NDG Linux Essentials or NDG Linux I everyday examples, including Internet of Things (IoT).

Cybersecurity Essentials

A single breach can have huge consequences for a company’s ability to function, hurting the bottom line and causing disruption in the daily lives of millions of people. This is why the demand for security professionals continues to grow. Get onboard—and develop an understanding of cybercrime, security principles, technologies, and procedures used to defend networks.Then decide whether you want to pursue an entry-level networking or security professional role.

Tracking trust in human-robot work interactions

-Researchers use functional near-infrared spectroscopy to monitor participant responses.

Source: Texas A&M University.

Kiran R ,7th Sem,CSE

The future of work is here.

As industries begin to see humans working closely with robots, there's a need to ensure that the relationship is effective, smooth and beneficial to humans. Robot trustworthiness and humans' willingness to trust robot behavior are vital to this working relationship. However, capturing human trust levels can be difficult due to subjectivity, a challenge researchers in the Wm Michael Barnes '64 Department of Industrial and Systems Engineering at Texas A&M University aim to solve.

Dr. Ranjana Mehta, associate professor and director of the NeuroErgonomics Lab, said her lab's human-autonomy trust research stemmed from a series of projects on human-robot Interactions in safety-critical work domains funded by the National Science Foundation (NSF).

"While our focus so far was to understand how operator states of fatigue and stress impact how humans interact with robots, trust became an important construct to study," Mehta said. "We found that as humans get tired, they let their guards down and become more trusting of automation than they should. Howevewhy that is the case becomes an important question to address."

Mehta's latest NSF-funded work, recently published in *Human Factors: The Journal of the Human Factors and Ergonomics Society*, focuses on understanding the brain-behavior relationships of why and how an operator's trusting behaviors are influenced by both human and robot factors.

Mehta also has another publication in the journal *ApplieD Ergonomics* that investigates these human and robot factors.Using functional near-infrared spectroscopy, Mehta's lab captured functional brain activity as operators collaborated with robots on a manufacturing task. They found faulty robot actions decreased the operator's trust in the robots. That distrust was associated with increased activation of regions in the frontal, motor and visual cortices, indicating increasing workload and heightened situational awareness. Interestingly, the same distrusting behavior was associated with the decoupling of these brain regions working together, which otherwise were well connected when the robot behaved reliably. Mehta said this decoupling was greater at higher robot autonomy levels, indicating that neural signatures of trust are influenced by the dynamics of human-autonomy teaming.

"What we found most interesting was that the neural signatures differed when we compared brain activation data across reliability conditions (manipulated using normal and faulty robot behavior) versus operator's trust levels (collected via surveys) in the robot," Mehta said. "This emphasized the importance of understanding and measuring brain-behavior relationships of trust in human-robot collaborations since perceptions of trust alone is not indicative of how operators' trusting behaviors shape up."

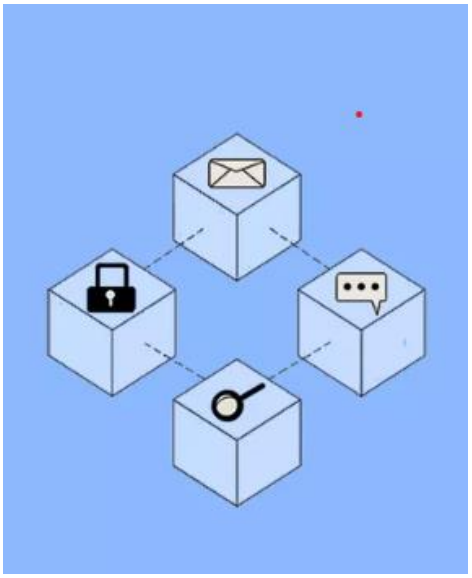
Dr. Sarah Hopko '19, lead author on both papers and recent industrial engineering doctoral student, said neural responses and perceptions of trust are both symptoms of trusting and distrusting behaviors and relay distinct information on how trust builds, breaches and repairs with different robot behaviors. She emphasized the strengths of multimodal trust metrics -- neural activity, eye tracking, behavioral analysis, etc. -- can reveal new perspectives that subjective responses alone cannot offer.

BlockChain Technology: How Data Is Segregated Into Blocks

Amruth J, 7th Sem,CSE

A blockchain is a distributed database or ledger that is shared among the nodes of a computer network. As a database, a blockchain stores information electronically in digital format. Blockchains are best known for their crucial role in cryptocurrency systems, such as, for maintaining a secure and decentralized record of transactions. The innovation with a blockchain is that it guarantees the fidelity and security of a record of data and generates trust without the need for a trusted third party.

One key difference between a typical database and a blockchain is how the data is structured. A blockchain collects information together in groups, known as blocks, that hold sets of information. Blocks have certain storage capacities and, when filled, are closed and linked to the previously filled block, forming a chain of data known as the blockchain. All new information that follows that freshly added block is compiled into a newly formed block that will then also be added to the chain once filled.



A database usually structures its data into tables, whereas a blockchain, as its name implies, structures its data into chunks (blocks) that are strung together. This data structure inherently makes an irreversible timeline of data when implemented in a decentralized nature. When a block is filled, it is set in stone and becomes a part of this timeline. Each block in the chain is given an exact timestamp when it is added to the chain.

The goal of blockchain is to allow digital information to be recorded and distributed, but not edited. In this way, a blockchain is the foundation for immutable ledgers, or records of transactions that cannot be altered, deleted, or destroyed. This is why blockchains are also known as a distributed ledger technology (DLT).

First proposed as a research project in 1991, the blockchain concept predated its first widespread application in use: Bitcoin, in 2009. In the years since, the use of blockchains has exploded via the creation of various cryptocurrencies, decentralized finance (DeFi) applications, non-fungible tokens (NFTs), and smart contracts

Editorial Board