NEW HORIZON
COLLEGE OF ENGINEERING

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

BEYOND EXPECTATIONS

NEWSLETTER

2021
AUG-DEC

i-NEWS

VOLUME-7
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 the society. The Department of Information Science and Engineering at NHCE was established in the year of 2001 and offers graduate, post graduate and PhD programs. The four year B.E degree equip the students to meet day-to-day Technological advancements of the ever dynamic IT field through adept training on various subjects of curriculum of Information Science and engineering and beyond. The department offers B.E program through autonomous scheme from the year 2015 and intake increased to 180 students from 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 co-curricular 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 endeavour is the result Of the efforts put in by 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

Toycathon 2021 is an inter-ministerial initiative organized by the Ministry of Education's Innovation Cell with support from All India Council for Technical Education, Ministry of Women and Child Development, Ministry of Commerce and Industry, Ministry of MSME, Ministry of Textiles and Ministry of Information and Broadcastingf ISE, New Horizon College of Engineering.

The PM interacted with the teams via video conference and the short-listed teams for the final power judging round were announced. Three projects were shortlisted to power judge round. After the power judge round, only the top 117 projects were announced as winners. Out of it, we are happy to say that 2 projects are from the Dept of ISE, New Horizon College of Engieneering.

☑ Around 1.2 lakh participants submitted their ideas across India with Over 17000 ideas being accepted for entry.

☑ 1567 ideas were shortlisted for the grand finale., In which 5 projects from Dept. of ISE, New Horizon College of Engineering entered Grand Finale of Toycathon.

☑ Prime Minister of India Addressed Grand Finale of Toycathon 2021

PRIME MINISTER
NARENDRA MODI's
interaction with
participants of
TOYCATHON
2021

S.No	Idea ID	Project Name	Track	Theme	Students Name
1	14757	Virtual Heritage Train-Bharath Ki Savari	2	Indian Culture, History, Knowledge of India and Ethos	Team Name – Visionaries Yashmitha – 1NH18IS128 Reshma. –1NH18IS137 Anushka. –1NH18IS129 Tejal –1NH18IS118
2	15606	Travel India	2	Indian Culture, History, Knowledge of India and Ethos	Team Name – Geeky boyz Surya.S : 1NH19IS170 Suhas.K.M : 1NH19IS167 Tharun Kumar.P :1NH19IS173

Towards Zero

Towards zero We are facing an urgent crisis that threatens our very existence which is a climate catastrophe. the climate stability of the past 12,000 years has come to an end, we are now suffering the impact like polar regions melting, species extinctions and the list goes on. Now we are at a critical moment where what each one of us does in the next few years, will determine what happens in the next few thousand years. What is zero-emission? In a typical year, the world emits over 51 billion tons of greenhouse gases, and as we keep doing that the consequences for lives on earth will be catastrophic. The world needs a revolution, we need to get from 51 billion tons to zero, by still maintaining our basic needs, this transformation is the greatest challenge for humans. So, reducing greenhouse gas emissions is knowns as zero-emission. Need for zero-emission The current carbon dioxide emissions are continuing to increase. The transitions we make to hit zero carbon in the next 30 years are going to change the world completely A lot of human activities generate greenhouse gases: generating electricity, transportation, and agriculture. Our goal is too simple that is to emit 10%less greenhouse gases. but we need to get to zero emissions by 2050 we have to come up with an alternative way that isn't too expensive to perform those same activities without emitting any greenhouse gases. Comparing the cost per unit of the current way of doing it to the approach that creates no emissions, we call the actual extra cost" green premium", for example in fuel there is a significant premium. Pure biodiesel costs 59% more than regular diesel. A green premium is a tool for measuring our improvement. where the green premium is highest, we need to put resources behind solving that particular area. we need a lot of research and development and many innovations to get the green premium down. if we get it to zero, that will get us to this goal of zero emissions. Problems faced with zero-emissions Zero emissions can mean vastly different scenarios depending on the context. The problem with zero emissions is there is no standard. one country may not reduce its emissions at all and rely on it for future carbon capture technologies, while another country might heavily reduce greenhouse gas output.in most cases, however, net-zero climate targets are just a buzz statement for procrastinating until the very last second. instead of focusing on emissions which is a sure way of minimizing the amount of greenhouse gases in the air. Zero-emission plans often rely on carbon capture and sequential strategies, which either come in form of natural offsetting through tree planting or technologies like direct air capture which are currently impractical at a large scale.in the case of nature-based sequestration, most offsetting is doing more harm than good. How do we get to real zero Future goals must be focused on eliminating emissions only ambitious reduction schemes from the core and multinational corporations can help us from the precipice of climate chaos.it means creating a world with100% renewable world instead of fossil fuels, replacing industrial agriculture with agroecological permaculture, and embracing a simpler life. we must also reduce the harm of false net-zero targets. All of us have the responsibility to help deliver the solutions our planet needs. Together we must build a green industrial revolution that stops climate change, protects vulnerable communities, and put the world on a path to progress. Thank you. Aruna K 1NH20IS017

Robotic Process Automation
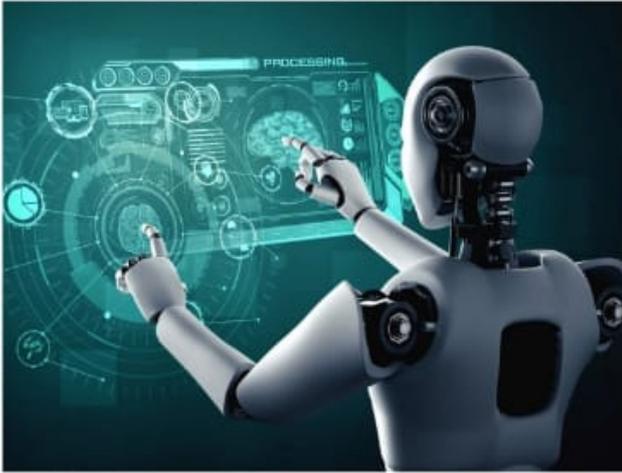
Robotic process automation (RPA) is software technology that mimics the way humans interact with software to perform high-volume, repeatable tasks.

Humans use the **RPA** to handle repetitive digital tasks. In particular, the ones that involve many rules and constraints are the tasks that become the specializations of RPA robots.

What are the benefits of RPA?

- Enabling better customer service.
- Ensuring business operations and processes comply with regulations and compliance standards.
- Dramatically speeding up processing time.
- Improving efficiency by digitizing and auditing process data.
- Reducing costs by reducing manual and repetitive tasks enabling employees to be more productive.

How Does RPA Work

Robotic Process Automation software bots imitate and fuse human interactions with digital systems to completely automate business operations. Now, that is done by training the **RPA** bots by giving them a series of specific steps, including feeding data, allowing user permissions, preparing and sending the invoice, and other such tasks. RPA relies on software robots, which we even know as bots, to automate different tasks of the business. The bots utilize different RPA software and tools to do so.

Robotic Process Automation Applications :

There many areas where RPA is been used, they are

- Banking and finance process automation
- Mortgage and lending processes
- Customer care automation
- Healthcare and human resources
- Data extraction process
- Fixed automation process

What is the future of RPA?

Judging by the current state of robotic process automation and the latest trends in its development, we can predict several ways in which it will be developing.

- Smarter RPA complemented by AI.
- Widespread adoption of automation.
- A convergence of digital and human workforces.

Swati Annappa Shet
ISE 'C'

DATA SCIENCE

An emerging technology career aspirant should know

An emerging technology career aspirant should know Data science is the study of data. It is a relatively new field that combines aspects of statistics, computer science, and information science. Data science is concerned with the collection, management, analysis, and visualization of data. Data science is a relatively new field, and as such, there is no one agreed-upon definition of what it is. In general, data science is concerned with the collection, management, analysis, and visualization of data. Data science is often used interchangeably with terms such as big data, data mining, machine learning, and artificial intelligence. Data science is a interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from data in various forms, both structured and unstructured, similar to data mining. The main goals of data science are to: • Understand the data • Clean and prepare the data for analysis • Analyse the data to find patterns and insights • Visualize the data to communicate the findings Data science is a very broad field, and there are many different approaches to data science. The most important thing for someone new to data science is to find a approach that works best for them and their data.An emerging technology career aspirant should know Data science is the study of data. It is a relatively new field that combines aspects of statistics, computer science, and information science. Data science is concerned with the collection, management, analysis, and visualization of data. Data science is a relatively new field, and as such, there is no one agreed-upon definition of what it is. In general, data science is concerned with the collection, management, analysis, and visualization of data. Data science is often used interchangeably with terms such as big data, data mining, machine learning, and artificial intelligence. Data science is a interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from data in various forms, both structured and unstructured, similar to data mining. The main goals of data science are to: • Understand the data • Clean and prepare the data for analysis • Analyse the data to find patterns and insights • Visualize the data to communicate the findings Data science is a very broad field, and there are many different approaches to data science. The most important thing for someone new to data science is to find a approach that works best for them and their data.

SHRIDHAR GAVADI
1NH20IS415.

i-CSEH Club

i-CSEH club activity (aug – dec 2021) newsletter

CODE-O-FIESTA (17TH November 2021)

i-CSEH club of Information Science and Engineering department of New Horizon College of Engineering had conducted an event "Code-o-Fiesta" on the 17th of November 2021.

The event started at 2:00 in the afternoon, commencing with a short welcome speech. There were students from all the departments to participate in the event. The event comprised of three rounds, the first round being a tech-quiz round, Rendezvoux. It had 20 questions each for 30 seconds. In the second round the participants played Pictionary where they had to draw and identify technical words .Each participant was given 60 seconds to find the word. The third round being the coding round gave the final glimpse of what the students who qualified were capable of. A few problem statements were given and the qualifiers were to find a solution to it within a span of 30 minutes.

i-scrum club

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Accredited by NAAC with 'A' Grade & Accredited by NBA

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING
IN ASSOCIATION WITH
i-SCRUM CLUB

PRESENTS

INFOTRIX
BATTLE OF BRAINS
AN INTER-DEPARTMENT EVENT

DATE: 29 DEC 2021
VENUE: FALCONRY HALL
TIME: 11:00 AM

EXCITING PRICES FOR WINNERS &
E-CERTIFICATE WILL BE PROVIDED

ROUND- 1: FIND FIT FINISH
ROUND-2: BUILD AND SOLVE

CONVENER:
DR. R J ANANDHI
PROF & HOD

FACULTY CO-ORDINATORS:
PROF. K M BILVIKA
PROF. SUVIKA K V

STUDENT CO-ORDINATORS:
BHAVANA B
CHAYANIKA BISWAS

Registration here:
https://forms.gle/x9XEKr3CQg3D8KBy8

FOR FURTHER QUERIES :
SAI SRI RAM: 7259977761

i-SCRUM club of department Information Science and Engineering conducted an event "INFOTRIX-battle of brains", on 29th December 2021. It was a complete offline event. It was an inter-department event. The event had active student participation of 106 participants. The best student in each round quailfied to the next round.

• The first round was "FIND FIT FINISH", it was a time based round consisting of problem solving questions. The event was conducted in Falconry Hall. The teams were given Cross Words, sudoku and logical ability questions. The duration was 30minutes. All teams actively participated in round 1. The results were announced after the club members evaluated the answers with the guidance of faculty co-ordinators. Top 30 participants qualified to round 2.

i-SCRUM club of department Information Science and Engineering conducted an event "TECH UMANG-embrace the tech-madness", on 16th November 2021. It was a complete offline event. The event was held for the students of all departments of NHCE. The event had active student participation of 106 teams, each team consists of 2 students. The best teams in first round were qualified to next round.

The first round was "Tricky Treats", it was a time based round consisting of technical questions. Teams were given 5 matrices each containing 9 questions. The duration was 20 minutes. All teams actively participated in round 1. The results were announced after the club members evaluated the answers with the guidance of the faculty co-ordinators.

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ent of Information Science and Engine

IN ASSOCIATION WITH
i-SCRUM CLUB

PRESENTS

TECH UMANG

"EMBRACE THE TECH-MADNESS!"

DATE-16 NOV 2021
TIME-11:10AM
VENUE-ISE DEPARTMENT

OPEN FOR ALL DEPARTMENTS
EXCITING PRICES FOR WINNERS &
E-CERTIFICATE WILL BE PROVIDED

ENERS:
ANANDHI
M BILVIKA
UVIKA K V

ROUND 1-TRICKY TREATS
ROUND 2-TREASURE SEEKERS

STUDENT CO-ORD
YASHMITHA
DEEPAK

FOR FURTHER QU
ASHISH CVNN:78

NOTE CLUB

The technical event "INCIDENT BRAINSTORM" organized by NOTE club of ISE department took place in room no.410 ISE department block on 19th November 2021 in the presence of NOTE club President, Vice President, Secretary, Treasurer, Core Committee members, Coordinators.

"INCIDENT BRAINSTORM" a technical competition where 56 students participated in the event which consisted of three rounds - Quiz it, Clash of code, Squid games. The Round 1- Quiz it, was an online multiple choice round where the participants were given 20 multiple choice questions to be solved in a given time of 30 minutes. Total of 26 participants were selected from this round who would further compete in the Round 2-Clash of code. But only 8 participants made it to Round 3-Squid games which were a fully coding round. Finally the top 2 participants were declared as winners of the event.

vmWARE CLUB

The event Avishkar was conducted on 24th December, 2021 under VMware IT Academy Club, an intra-collegiate technical event held by the Information Science & Engineering department.
The event started around 9:30 a.m. in the morning with 94 students across various departments.
The entire event was based on problem solving and focused on technical knowledge. The first round "Let's Get Gibberish" was an individual round with various technological statements to be analyzed and decoded. Top 40 participants were selected from the first round to qualify on to the next.
The second round "Solo vs. Squad" was an interactive round with two participants clubbed into a team. The round was held in a VMware lab where each team was provided with three famous personalities that were to be guessed under 5minutes. Top 20 participants were selected on to qualify on to the final round.
The final round red "Duel of Fates" dealt with solving technical crosswords in the form of treasure Hunt. The participants who got the most correct answers in the crossword in the shortest amount of time were awarded as winners. The final top 2 teams were awarded certificates based on accuracy and time.

The event Zypher was conducted on26th November, 2021 under VMware IT Academy Club, an intra-collegiate technical event held by the Information Science & Engineering department. The event started around 9:30 a.m. in the morning with an enthusiastic participation of 239 students across various departments.
The first round what's behind me? was a round with two participants in each team that dealt with various technological concepts. The Top 40 participants were selected from the first round to qualify on to the next.
The second round Mind Martians was an interactive round with five participants in a team. Each team were provided a question paper with various tasks. Top 20 participants to qualify on to the next and final round.
In the final round, red light green light the participants had to code when the light was green and freeze when light was red. The participants who got the correct output which was the shape in the respective language in the shortest amount of time were awarded as winners. The top 3 winners were awarded.

ISWET CLUB

The event Udbhava was conducted on 26th November, 2021 under i-SWET (G) Club, an intra-collegiate technical event held by the Information Science & Engineering department. The event started around 11:00 a.m. in the morning with an enthusiastic participation of 140+ students across various departments.

The entire event was based on problem solving, logical and focused on technical knowledge. The first round Tech Probe was a round with individual participation where the participant has to solve technical crossword and quiz.

The second round Pic-Tonic was a fun and interactive round with two participants clubbed into a team, where one participant has to pick a piece of paper with a written word on it and he tries to draw the picture on the board and the other teammate has to be guess the correct. Top 20 participants were selected on the basis of speed & correctness to qualify on to the next and final round.

The event ABHYUDAY was conducted on 30th December, 2021 under i-SWET(G) Club, an intra-collegiate event held by the Information Science & Engineering department. The event started around 11:30 a.m. in the morning with an enthusiastic participation of 140+ students across various departments. An introduction to the event was given in the class room in the presence of all participants.

The entire event was based on problem solving, logical and focused on thinking ability. The first round Brain Drain was where the participant has to answer for the questions displayed on the screen. Top 40 participants were selected from the first round to qualify on to the next. scores.

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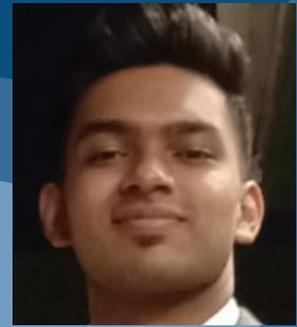
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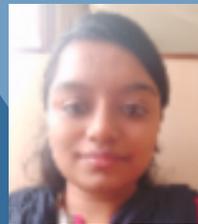
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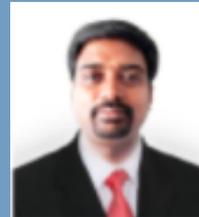
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