The Neural Chronicles

Message From Principal

It gives me great pleasure to give my best wishes to the editorial committee of the Department of Artificial Intelligence and Machine Learning, New Horizon College of Engineering. The students and faculty of the department are always proactive in taking initiative in all kinds of events. I congratulate all the achievers, contributors, and students for bringing out such an informative newsletter. I hope this newsletter reflects all activities of the department and inspires others to do their best.

Thanking you,

Regards
Dr. Manjunatha

Letter From The HoD

Greetings to all !!

Learning is a lifetime opportunity, while we sail in the ocean of knowledge we strive for excellence and strength. This is the third issue of "The Neural Chronicles".

I take this column of space to appreciate the collective efforts of students, faculties and the department of AI & ML to have done a great job in achieving heights. The department encourages more activities towards excellence.

I wish all the best to the budding innovators to do more in the time ahead. Your stupendous achievements have doubled the strength of understanding the dynamics of this field of Artificial Intelligence and Machine Learning.

The articles and idea insights shared in this newsletter depict the common interests in this field.

With best wishes,
Dr N V Uma Reddy
Professor and Head
AI & ML, NHCE

About The Department

The Department of Artificial Intelligence and Machine Learning at New Horizon College of Engineering was established circa 2020, and it offers a program at the UG level. The institution in all its grandeur is accredited by National Board of Accreditation (NBA) and by The National Assessment and Accreditation Council (NAAC) with the coveted "A" grade.

Artificial Intelligence is consistently clawing itself deeper into various industries and possesses great potential in the current market. It would be best described as an amalgamation of Data Science and Machine Learning. For the average Joe, Data is an elephantine amount of information with great scope for elaborate analytics.

The department of AI&ML here at NHCE quintessentially focuses on the five pillars of AI technology– Data Science, Machine Learning, Deep Learning, Big Data Analytics, and Visualization & Deployment of the predictive model. The caliber of any department is intrinsically defined by the professors it nourishes. Our department boasts a competent fraternity of ardent, motivated, and experienced professors striving to equip their students with the skills to provide smarter solutions to the problems, existing and forthcoming. Paving the way for a brighter future, in the modern world.
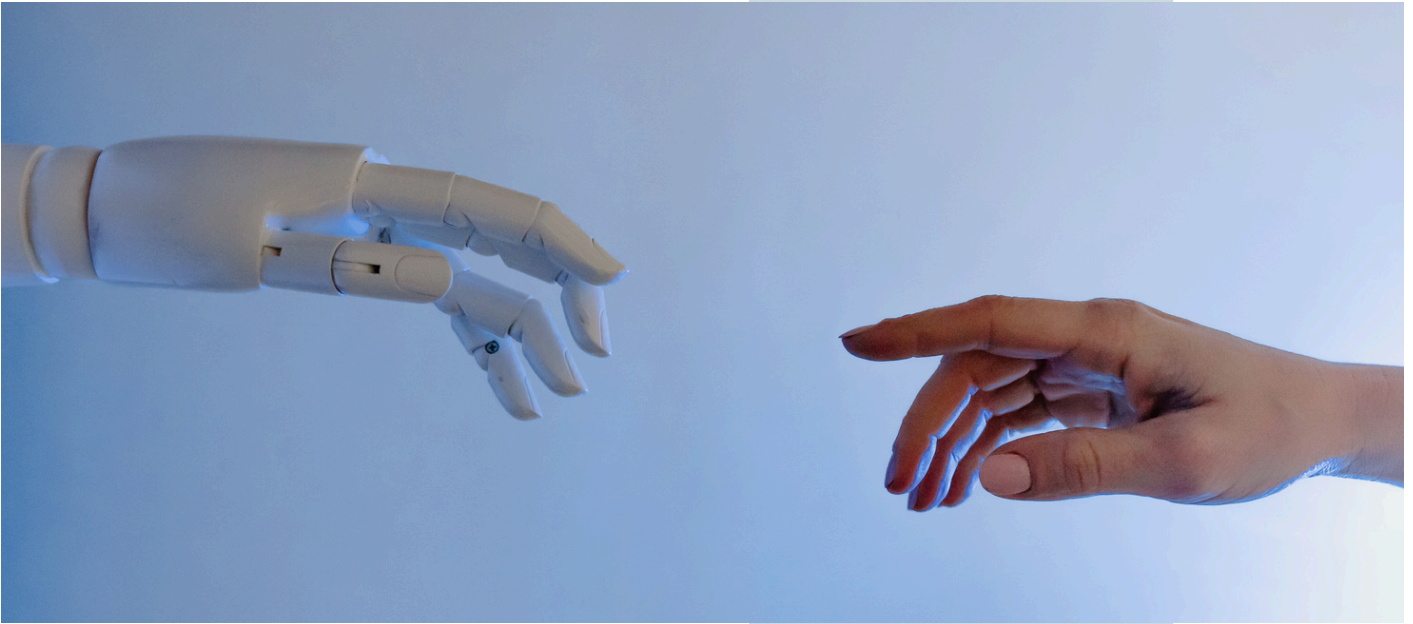
Vision:

To develop an outstanding AI and ML professionals with profound practical, research & managerial skills to meet ever changing Industrial Social and Technological needs of the Society.

Mission:

- To disseminate strong theoretical and practical exposure to meet the emerging trends in the industry.
- To promote a freethinking environment with innovative research and teaching–learning pedagogy.
- To develop value based socially responsible professionals with high degree of leadership skills will support for betterment of the society.

Workshops
and Events

Exploring Opportunities: Studying Abroad

The Department of Artificial Intelligence & Machine Learning conducted a seminar titled "Exploring Opportunities: Studying Abroad" on 17th November 2023 at Falconry Seminar Hall hosted by Mr. Yashas D, Mr. Zameer, and Mr. Pratheek.

The objective of this lecture series was to provide insights on Globally top-ranked universities that are located abroad, offering students access to world-class education and research opportunities.

Mr. Yashas D started the session and gave his insights on High Paying Jobs and also explained how studying abroad can enhance a student's career prospects with higher salaries. He further elaborated on the post-study work permit (PSW) options abroad, which allow graduates to gain work experience abroad for up to two years post-graduation.

Furthermore. Zameer talked about Permanent Residency (PR) and also how Studying abroad offers a hassle-free approach to getting a quick & easy pathway to a PR without any time-consuming criteria. He also discussed how affordable education is in foreign countries. Most study abroad destinations have affordable tuition fees and he also explained how students have numerous ways to fund it including education loans, Internship & part time jobs.

Mr. Prateek added on by providing a deeper understanding regarding fundings and procedure to apply loans as he shared the statistics on loan approvals. As the session concluded many students interacted with Mr. Prateek and acquired more knowledge on educational loans and their procedures. The participants found this session to be useful and very informative.

Parent Teacher's Meeting

THE DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING CONDUCTED PARENT-TEACHER MEETINGS FOR THE ACADEMIC YEAR (2023-2024) IN DECEMBER. THE MEETING WAS HELD IN THE IBM LAB OF THE DEPARTMENT OF AIML. DR N V UMA REDDY, HEAD OF THE DEPARTMENT, ADDRESSED THE GATHERING THE FACULTY, MENTORS, AND THE CLASS IN CHARGE WERE PRESENT AT THE VENUE. VARIOUS ACTIVITIES CONDUCTED BY THE DEPARTMENT WERE DISCUSSED INCLUDING DOMAINS SUCH AS ATTENDANCE, INTERNAL EXAM EVALUATION, LAB EXAM INSTRUCTIONS, AND EXTRA-EXTRACURRICULAR ACTIVITIES.

THE PARENTS WERE REQUESTED TO MOTIVATE THE STUDENTS TO PARTICIPATE IN TECHNICAL EVENTS. ADDITIONAL QUERIES ON INTERNSHIPS, GLOBAL COURSES, EXTRA CERTIFICATIONS, AND PLACEMENTS WERE RAISED AND CONSEQUENTLY ADDRESSED AND CLEARED. THE PARENTS WERE SATISFIED AND EXPRESSED GRATITUDE TO THE FACULTY MEMBERS FOR THEIR EFFORT TOWARD THE IMPROVEMENT OF THEIR WARDS AND FOR ORGANIZING THE MEETING.A REQUEST FOR SIMILAR MEETINGS AND UPDATES IN THE FUTURE WAS MADE. THE PARENTS WERE DIRECTED TO MEET THE CONCERNED MENTORS OF THEIR WARDS IN PERSON FOR IN-DEPTH COUNSELING.

AFTER THE SUCCESSFUL MEETING WITH THE MENTORS AND SUBJECT TEACHERS, THE PARENTS WERE REQUESTED TO GATHER THEIR VALUABLE INPUT AND FEEDBACK ON THE EVENT TO AID AND IMPROVE THE QUALITY OF THE DEPARTMENT IN THE FUTURE.

R&D Workshop

The Department of Research & Development, in collaboration with Artificial Intelligence & Machine Learning, organized a lecture series titled "Project Writing and Funding Opportunities" on November 8th, 2023. The objective of this session, guided by Dr. Shyam Lal, Associate Professor in the Department of Electronics & Communication Engineering at NITK, Surathkal, Karnataka, India, was to provide in-depth understanding of paper writing and funding opportunities across diverse research fields.

Dr. Shyam Lal, who also serves as the CEO and Director of M/S AIQUANTUM SMART SOLUTION PRIVATE LIMITED and as a consultant at M/s Starfleet Ventures, Canada, further explained the important areas where students can focus on for research purposes such as AIML Optimization algorithms, Cyber Security, Histopathology, Satellite and Aerial image processing etc

He delved into the components of a research proposal, explaining both its technical intricacies and social impact. He also addressed the common shortcomings in proposal writing,focusing on insights drawn from a SERB-DST Project proposal example.

During this session, Dr. Shyam Lal shared the parameters that will be considered reviewers during the evaluation of SERB-DST proposals; this gave the participants invaluable guidance. Furthermore, they were briefed on the different types of government funding schemes, enriching their understanding of available resources for supporting their research.

The event was coordinated by R S SyamDev, Sr. Assistant Prof. AI&ML, and Dr. P. Adhikary, Professor & Associate Head-R&D, under Dr. Uma Reddy N V, Professor & HoD, AI&ML, and Dr. Revathy V, Professor & Dean R&D.This event had a total of fifty participants who were left with a deeper understanding of writing research papers and the numerous funding opportunities provided.

Orientation for 3rd Sem

The orientiation programme for the sophomores held on the 25th of October 2024, was a vibrant and welcoming scene filled with enthusiasm . The event was inaugurated with a warm welcome address by Dr. Soumya H. K. Following this the crowd was addressed by Dr. N. V. Uma Reddy, the head of the AIML department, shared her experiences and gave us a very insightful overview of our department by shedding light on its values goals and importance.

Dr. Umamaheshwaran, debunked common myths surrounding the core of our department sparking the curiosity of the students and encouraging them explore further. The active involvement of the students contributed greatly to the success of the orientation.

Going on, the students of the reigning 7th semester were given the opportunity to address the students about the various co-curricular and extra curricular clubs in the department. There was a brief overview about the IEEE chapter by Mr.Praneeth and Mr.Aditya. after which there was an insight of the toastmasters club as well by Mr. Om Kumar Patra.
The students shared the benefits and the advantages of being involved in the department events and shed lights on how it would benefit the college community.

After the informative segment of the orientation, the students of the 7th semester added some fun and games to the day. The show was kickstarted with a lively 'guess the song by the emoji' which was quite entertaining and showcased how lively and interactive the sophomores were. Various other events like an online technical quiz, pop quizzes and dumb charades were planned which left everyone in their high spirits. The winners were awarded with snacks and chocolates to add an element of cheer in the competitors. Finally the event was concluded with a note of gratitude by Prof. Jimsha K Mathew.

The event was a great success, creating a sense of belonging and togetherness among the incoming students. It was truly an eventful day where knowledge met fun. A lot of wise words were shared and the new batch truly felt welcomed into the department.

NHCE IIC, in collaboration with the Department of Artificial Intelligence and Machine Learning, hosted a motivational talk titled "My Story – Motivational Session by Successful Innovators." This IIC Activity was an Expert Talk at Level 1, falling under the theme:Innovation & Design Thinking. The session was on November 29th, 2023.This talk had a total of 61 student participants and it was also attended by three faculty members.

The primary objective of the session was to inspire the participants to generate innovative ideas and effectively implement them, and second, to equip them with the strategies necessary to overcome challenges and set targeted goals.

The Speaker precisely explained how ideas are generated and also the implementation of such ideas. By attending and actively participating in this session the students gained a deeper understanding on how they can overcome challenges. They also learned how to set targeted goals and achieve them.

Data Engineering and MLOps Pipeline Workshop

Department of AI & ML, Alumni Association NHCE and Innovation Club, have taken an initiative to conduct the Industrial Talk on **"Data Engineering and MLOps Pipeline"**. The modern market expects AI and ML engineers to effectively and reliably implement and maintain machine learning models in production. This industrial session will cover machine learning procedures aimed at optimizing the process of deploying machine learning models to production, followed by monitoring and maintenance. The Industrial talk on Data Engineering and MLOps Pipeline was planned and conducted for the 7th and 5thSemester students of AI & ML department on 12th December.

Career Counseling and Innovative Abroad Educational Programs

The lecture series was held on December 29th, 2023, at the Falconry Seminar Hall, NHCE, provided an insightful exploration into the various avenues available for students seeking educational opportunities abroad. Led by Ms. Shruti Kulkarni, the session commenced with a comprehensive discussion on the potential career benefits of studying abroad, including higher-paying jobs and enhanced career prospects.

Ms. Kulkarni adeptly elucidated personalized career development strategies such as internships, networking, and skill-building opportunities, underscoring their integral role within study abroad programs. Additionally, participants gained valuable insights into the practical aspects of obtaining permanent residency (PR) through studying abroad, with Ms. Kulkarni highlighting the streamlined pathways available without arduous criteria, further emphasizing the affordability of education in foreign countries through various funding avenues like education loans, internships, and part-time jobs.

With a total attendance of 92 participants, the lecture was hailed as both useful and informative, with attendees lauding its practical relevance and insightful content. The event, spearheaded by Dr. N.V. Uma Reddy, Professor & HOD (AI&ML), and coordinated by Sandyarani V and Supriya B Rao, Sr. Asst. Prof. and Asst. Prof. respectively, facilitated an enriching discourse on the diverse educational opportunities accessible globally.

By shedding light on the manifold benefits of studying abroad, the session not only empowered participants to make informed decisions regarding their educational pursuits but also underscored the significance of international exposure in fostering holistic academic and professional growth. Overall, the lecture series served as a catalyst for broadening horizons and igniting aspirations among students and educators alike, embodying NHCE's commitment to facilitating comprehensive academic enrichment.

Mind Labs

Event Organizer: Evolve.AI Club

MIND LABS was an engaging technical event hosted by the Evolve.AI club, designed to test participants' knowledge of important technology terminology, basic coding skills, and problem-solving abilities. The event comprised two rounds, welcoming participants from all backgrounds and skill levels. Through MIND LABS, the club aimed to underscore the significance of honing logical thinking skills and familiarizing oneself with the technical jargon commonly used in the industry. By providing an open invitation, MIND LABS sought to foster a collaborative learning environment and promote enthusiasm for technology among participants.

Round 1: Up-Top

In the first round, named "Up-Top," participants engage in a game where one member of a team holds a phone displaying a word while the other member describes the word without using it. The team standings are determined based on the number of correctly guessed words. The top 6 teams, advance to the second round.

Round 2: Code-a-clause

The second round, presents participants with ten challenging questions to solve. These questions include tasks such as debugging code, decrypting ciphers, and overcoming various technical challenges. The club team prepares three sets of questions, with one question provided at a time. Upon solving a question, participants receive the next one. The first three participants to successfully solve all their questions are declared the winners, securing first, second, and third place, respectively.

Winners:
1st Place – Anand PK (1NH21AI011)
2nd Place – Anand Cheruvu (1NH21CS024)
3rd Place – Karan (1NH22EC074)

YI YUVA Pathfinder

The Department of Artificial Intelligence and Machine Learning organized a seminar to introduce the Yi-YUVA Pathfinder 2024 for III-semester students. This seminar, held in the Tejus Seminar Hall on the 2nd of February 2024, aimed to discuss CII, Yi Yuva, and its key features with the students.

Yi-YUVA stands for "Young Indians – Youth Wing of CII." Young Indians is an integral part of CII and serves as a platform for young professionals and entrepreneurs to engage in various activities related to business, leadership, and community development. The members are placed in an environment that fosters entrepreneurship and innovation, through events, seminars, and workshops conducted by industry professionals and entrepreneurs.

The organization not only prioritizes skill development but also helps the youth build networks with their peers and with established leaders in various industries. Aside from holistic development, Yi-YUVA is often involved in various CSR activities aimed at making a positive impact on society.

The seminar helped the students of for III-semester belonging to multiple branches understand the relevance and the key features of Yi-YUVA and motivated them to explore the organization. They were advised to get in touch with the relevant faculty members to learn more and familiarize themselves better with Yi-YUVA.

Ideathon

In essence, an Ideathon is a platform that provides individuals with an opportunity to present their ideas that have the potential to solve real-world problems. The Smart Cities-themed Ideathon, coordinated by the Innovation Club, marked a milestone in the pursuit of innovative urban solutions. Over the course of the event, participants from various departments collaborated in teams, showcasing their creativity and problem-solving skills.

The event, conducted in the Falconry Seminar Hall on 7th February 2024, was preceded by an inauguration, emceed by Vibha, and a presentation on various topics relevant to Smart Cities demonstrated by Adrian, Dave, and Chris. It provided a comprehensive presentation on Design thinking and Smart Cities and aimed to furnish participants with essential frameworks and methodologies vital for navigating the complexities of urban development effectively.

Round 1 :

Kickstarted with 60 participants split into 14 groups. Each group dove deep into understanding the intricate challenges faced by urban communities, fostering a profound connection with the issues at hand. Through empathy and definition, they laid a solid foundation of genuine understanding, priming themselves for the inventive burst to come. At the end of the round, they were judged by Dr. Sonia D'Souza, an Associate Professor of the AIML Department. The teams were evaluated based on the performance of round 1, with the prices handed over on the next day by the judge and the faculty coordinator, Dr. Sreejith S.

The Ideathon proved to be a transformative experience for participating students, offering them invaluable opportunities for growth, learning, and networking. Their newfound understanding of the complexities of urban development and hands-on practice of interdisciplinary collaboration has empowered the participants to think creatively, collaborate effectively, and make meaningful contributions to the advancement of smart and sustainable urban solutions. As they continue their academic and professional journeys, the lessons learned and connections made during the Ideathon will undoubtedly continue to impact their lives in profound ways.

Industrial Visits

Students from the Department of AI & ML, embarked on an industrial visit to 'Robert Bosch' on November 6, 2023. The visit was attended by twenty students and two faculty members. This industrial visit aimed to provide the students a better understanding on the implementation of AI defect inspection systems in prototype testing equipment. Led by Associate Professor, Dr. Sreejith S the visit took place at Robert Bosch's facility in Electronic City Road, Naganathapura, Bangalore.

Bosch , a company renowned as a leading supplier of software, technology, and services across various sectors, including Mobility Solutions and Industrial Technology, offered our students a firsthand glimpse into cutting-edge AI applications. Bosch has the largest development center in India which has been instrumental in driving innovation and technological advancement in the region.

This industrial visit not only provided our students with firsthand exposure to practical AI applications through Bosch's knowledge in emerging domains like AI

Essae Teraoka

Today's engineers-in-making will be entering a foreign, demanding, and competitive industry. Industry visits are one of the many approaches that make our assimilation into the industry environment easier.

Essae Teraoka Pvt Ltd, or Essae for short, is a part of the Essae group which onlooks Manufacturing, Marketing, and rendering services for product verticals namely Electronic Weighing scales, Point of Sale Terminals, Milk Analysers, and GPS Synchronized Clocks. The facility is located in Bommasandra, Bengaluru.

The Department of Artificial Intelligence and Machine Learning organized an industry visit to Essae on 1st February 2024, from 8:00 AM to 4:00 PM. It was coordinated by Dr. Sreejith S, Associate Professor, Dr. N V Uma Reddy, HoD of the department, and Dr. Manjunatha, Principal of NHCE. A total of 60 students of 3rd semester from AIML attended this field trip. This visit helped the students analyze the forefront of innovation in product creation and sophisticated manufacturing techniques like robotics and automation.

With the participation of over 60 students and three faculty members, the visit illuminated the transformative processes behind modern manufacturing and product development. It was an initiative by Yi Bengaluru to instill a sense of innovation in the next generation, urging students to engage in activities that build their leadership abilities and innovative thinking.

Student
Achievements

- **Pallavi Sharma**
   WPC Karnataka Open State Championship RAW– 1st Place

- **Jaswanth**
   Inter–Collegiate Sports Fest NHCE Volleyball Men – Runner Up

- **Hariharan V**
   New Horizon Cup Volleyball Men – Runner-Up

- **Nithya Shree R**
   Spardha CMRIT Volleyball Girls – Participant

- **Sahil Yadav**
   KLS VDIT Judo Men 66 kg – 1st Place
   KLS VDIT Wrestling Weight 70 kg – 2nd Place
   Bangalore Central Zone Basketball – Runner-Up
   MSRIT Inter Collegiate Tournament Basketball Men – 3rd place
   New Horizon Cup 2023 Basketball Men – Runner Up
   Chiguru 2023 Basketball Men – 1st Place

- **Avinash A**
   KLS VDIT Judo Men 100 kg – 1st Place

- **Deekshitha Ganiga**
   Sargam 2023 Nrithya Sargam – 2nd Place

- **Sravan O K**
   GNDCE Inter Zone Football Men – 4th Place

- **G M Praveen Kumar**
   BMSCE Inter Collegiate Tournament Handball Men – Runner-Up

- **G S Sai Kamal**
   BMSCE Inter Collegiate Tournament Handball Men – Runner-Up

- **P Saketh Sree Ram**
   CMRIT Spardha 2023 Chess Men – Participant

Student
Submissions

MOUNIKA RECHERLA

SIREESHA K S

YASHAS M SHETTY

PARIVARTHAN

Upon the canvas of our soul,
Emotions swirl and take their toll.
Each stroke, a hue of joy or pain,
A masterpiece of loss and gain.

With vibrant shades of love and grace,
And darker tones we dare to face.
The brush of time, it leaves its mark,
On this canvas, both light and dark.

In every tear, a story told,
In every smile, a heart consoled.
With passion's fire, we paint our dreams,
And mend the seams of broken seams.

The colors shift, the palette grows,
As life's rich tapestry unfolds.
With every stroke, we find our way,
Upon this canvas, day by day.

So let us paint with courage bold,
And let our true emotions hold.
For in this art, we find release,
And in our hearts, we find our peace.

-Pragathi K A

EVERY NIGHT BEFORE GOING TO BED,
THE MEMORIES START TO ROAM IN MY HEAD
AND A SINGLE QUESTION I ASK MYSELF
"WILL THOSE DAYS BE BACK??"
THOSE DAYS WITH A CHEERFUL SMILE AND A NEVER-ENDING HAPPINESS
THOSE DAYS WHEN I WAS CRASS, AND COULDN'T CRACK PEOPLE
THOSE DAYS WHEN ONLY CHAMELEON CHANGED COLORS
THOSE DAYS WHEN FRIENDS WERE WITH YOU FOR FRIENDSHIP AND NOT
FOR THEIR NEEDS
BUT NOW IT PAINS TO BE FRIENDLY WITH, WHOSE REALITY ISN'T HIDDEN
FROM ME

"WILL THOSE DAYS FILLED WITH INNOCENCE BE BACK??"
"WILL THAT AGE BE BACK??"
EVERY TIME I ASK MYSELF THIS QUESTION
I GET A BIG "NO" AND THEN I GO TO SLEEP, ACCEPTING THE SITUATION.

~MOKSHITHA S

Patents

PATENTS

- *"Swift Sort Using Divide-And-Conquer Technique", 12/07/2023*
    -Prof. Shashikala K S, Mr. Anand P K

- *"Creation Of Visual Blogs Using Automatic Image Generation On A Blockchain Network By Minting Non-Fungible Tokens", 12/07/2023*
    -Dr. N.V. Uma Reddy, Mr. Jayavaibhav N K, Mr. G Sai Charan, Mr. K Manish, Mr. Nischith T N, Mr. Nikhil Ravi

- *"Climatic Information Investigation Utilizing pyspark", 13/07/2023*
    -Prof. Shruthi S, Ms. Vandhana M Nair, Ms. V R Geethika Reddy, Ms. Thatigola Jayalakshmi, Ms. Yeddula Yashaswini, Ms. Sinchana T G, Prof. Sowmya H K

- *"Online Charge Card Discovery Utilizing Enormous Information Devices", 13/07/2023*
    -Prof. Shruthi S, Ms. Vandhana M Nair, Ms. V R Geethika Reddy, Ms. Thatigola Jayalakshmi, Ms. Yeddula Yashaswini, Ms. Sinchana T G, Prof. Sowmya H K

- *"Eye Blink Rate Detector to Avoid Digital Strain", 01/09/2023*
    -Dr. N.V. Uma Reddy, Mr. M Karthik Kumar, Ms. Fizza Mirza, Mr. Jayavibhav N K and Mr. Metukur Sri Charan Reddy

- *"Management Of Waste Using Object Detection", 17/10/2023*
    -Prof. Shashikala K S, Dr. Thiyagarajan V S, Dr. M Gurupriya, Mr. Prajwal T S, Mr. Jaswanth S, Mr Vasanth S

- *"Real Time Mobile Theft Warning Alarm Using A Loud Noise And A Flashing Light", 17/10/2023*
    -Prof. Shashikala K S, Mr. Anand P K

- *"A Smart And Self Acting Process For Distinguishing And Grading Diabetic Retinopathy", 04/11/2023*
    -Prof. Supriya B.Rao

- *"Compact Anesthesia Machine", 29/11/2023*
    -Dr. R.G Vidhya, Dr. C.R Komala, Dr. J Surendiran, Prof Sonia D'souza

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