

THE TECHNICAL BOARD (2022-23)



OUR MOTTO

Engineering and Technical board has its motto to deliver information regarding every happening in the gallery of engineering world that is competitions, seminars and conferences taking place out there. ✨

FACULTY INCHARGES : P. B. Karandikar (EnTC Dept)
Dr. Ashwini Sapkal (IT Dept)
Mrs. Vaishali Ganganwar (Comp Dept)
Dr. R. B. Gurav (Mech Dept)
Dr. Ganesh Mundhe (ASGE Dept)

BOARD SECRETARIES : Bhaumik Maan (IT), Khushi (Comp-B)

LINKS TO TECHNICAL BOARD AT DIFFERENT PLATFORMS:

INSTAGRAM: <https://www.instagram.com/aittechnicalboard/igshid=1g7kvxse9zmmu&fbclid=IwAR078YmXx4k8xmfcIApp0Rgl35ra9e4IiRDAkt7LoRlaKluPjciUWWWh86k>

GITHUB: [ait-techboard.github.io](https://github.com/ait-techboard)

Technical Secretaries



Khushi
Comp-B

Bhaumik
IT



Khushi: 99103 90489
Bhaumik Maan: 73878 23677

JOINT SECRETARIES

On the path of rejuvenation and with goals to achieve the next level, The Technical Board has its Joint Secretaries! ✨

Vansh Vatsal
Khushi Shah
Anushna Panwar
Prashant Chauhan
Rakesh Pradhan
Harsh Bisht
Jangveer
Aditya Tiwari
Giriraj

Joint Secretaries



TE MEMBERS

“Individually we perform great deeds, but when put together, it becomes wonderful”

Introducing the TE members for the year 2k22-23

Aayush Singh Rathore

Abhay Shukla

Ashwani Kumar

Neha

Paidi Ajay

Pawan Kumar

Prince Harshwardhan

Rishabh Rai

Rishabh Tiwari

Shaurya Singh

Shubham Bisht

Suraj Singh

Tejaswini

Vishal Singh

Vipin Kumar Yadav

Yugandhar Patil

Abhay Mishra

Looking forward to an amazing year with such tech geeks! ✨



EVENT-1 Talk by Vispi Karkaria

SEMINAR – DIGITAL AND AI TWINS

Dated 26th AUGUST

5:00 PM

Venue: BC JOSHI Hall

“Some people call this artificial intelligence, but the reality is this technology will enhance us. So instead of artificial intelligence, I think we’ll augment our intelligence.” – Ginni Rometty

A magnificent speech with a motivational aura by **Mr. VISPI NEVILLE KARKARIA, PhD researcher at North Western University, Illinois, USA**. This live session was conducted by the TECHNICAL BOARD OF AIT in the remarkable hall of famed General BIPIN CHANDRA JOSHI (RETD.). A good amount of 30 interested fellows attended the live session with great enthusiasm. The session was followed by great counter questions and doubts by the listeners, about how to implement the **AI Twins** in carrying out big time data analysis. He focused on why Data analysis is required, and why we needed to be one, as the market is evolving so is the requirements of daily activities and the need for simplistic and adaptable technology. Giving an example of a **Tesla Model** of how it AI adapts to the environment and how it can adapt to Indian roads with great speed bumps and a massive traffic. He used a very simple way to explain sophisticated terms and interacted with the fellow audience. Through the session Mr. Karkaria picked up a great response from the audience.

On the lovely evening Mr. Karkaria discussed about the Digital and AI Twins and its practical applications. The explanations included that a digital twin is a digital representation of a physical object or system. The technology behind digital twins has expanded to include buildings, factories and even cities, and some have argued that even people and processes can have digital twins, expanding the concept even further. Furthermore, a digital twin begins its life being built by specialists, often experts in data science or applied mathematics. These developers research the physics that underlie the physical object or system being mimicked and use that data to develop a mathematical model that simulates the real-world original in digital space. He explained all this with a well detailed presentation on the topic. Giving out real life examples of where digital and AI twins can be implemented. At the end of the session Mr. Karkaria gave out a motivational speech of studying abroad which was very beneficial for the students. The TECHNICAL BOARD OD AIT presented him with a gift and had a photography session.



AIT TECHNICAL BOARD



Live Session

Digital and AI Twins

Vispi Nevile Karkaria

PhD Research Scholar
at Northwestern University, IL, USA



5:00 p.m.

26th Aug 2022

Venue: BCJ Hall



EVENT-2 COGNITARE (ENGINEER'S DAY CELEBRATIONS)

Dated: 15th SEPTEMBER

5:00 PM

Venue: Manekshaw Hall

"As curious as little minds, as creative as da Vinci's designs, as flexible as a climbing vine and a great observer all the time."

- Sir Mokshagundam Vishveshwaraya

On a very special occasion of Engineer's Day, the TECHNICAL BOARD of AIT conducted a great event. It was held in the renowned SAM MANEKSHAW HALL. A figure of 33 tech enthusiasts came to the event. The room was filled with motivated future engineers. All engineering year students participated in the event. The board chose Kahoot as a platform to conduct the event.

The event kickstarted with a devotional speech from the joint secretaries. Engineers' Day was established by the Indian government in 1968, on the birth anniversary of Sir Mokshagundam Vishveshwaraya and this was his 162nd. Since then, this day has been observed to honor and recognize all engineers who have contributed to the development of a modern and developed India, as well as those who continue to do so. Vishveshwaraya was the chief engineer for construction of Krishna Sagara dam on Kaveri River in Mysuru, which was the biggest reservoir in Asia during his time. Visvesvaraya revolutionized the irrigation system in India by implementing irrigation and drinking water systems all over the country. There were other mentions of magnificent personalities like APJ ABDUL KALAM, E SREEDHARAN, SATISH DHAWAN, PRIYA BALASUBRAMANIAM and SUNDAR PICHAI.

The questions varied from easy ones to challenging ones. The last set of questions even exhilarated the event as it had a twist at the end. The last questions included questions from the speech. In the end, it was declared to announce the result on the board's social media handle and yet another successful event carried out by the board.

GLIMPSES FROM THE EVENT—

Cognitare

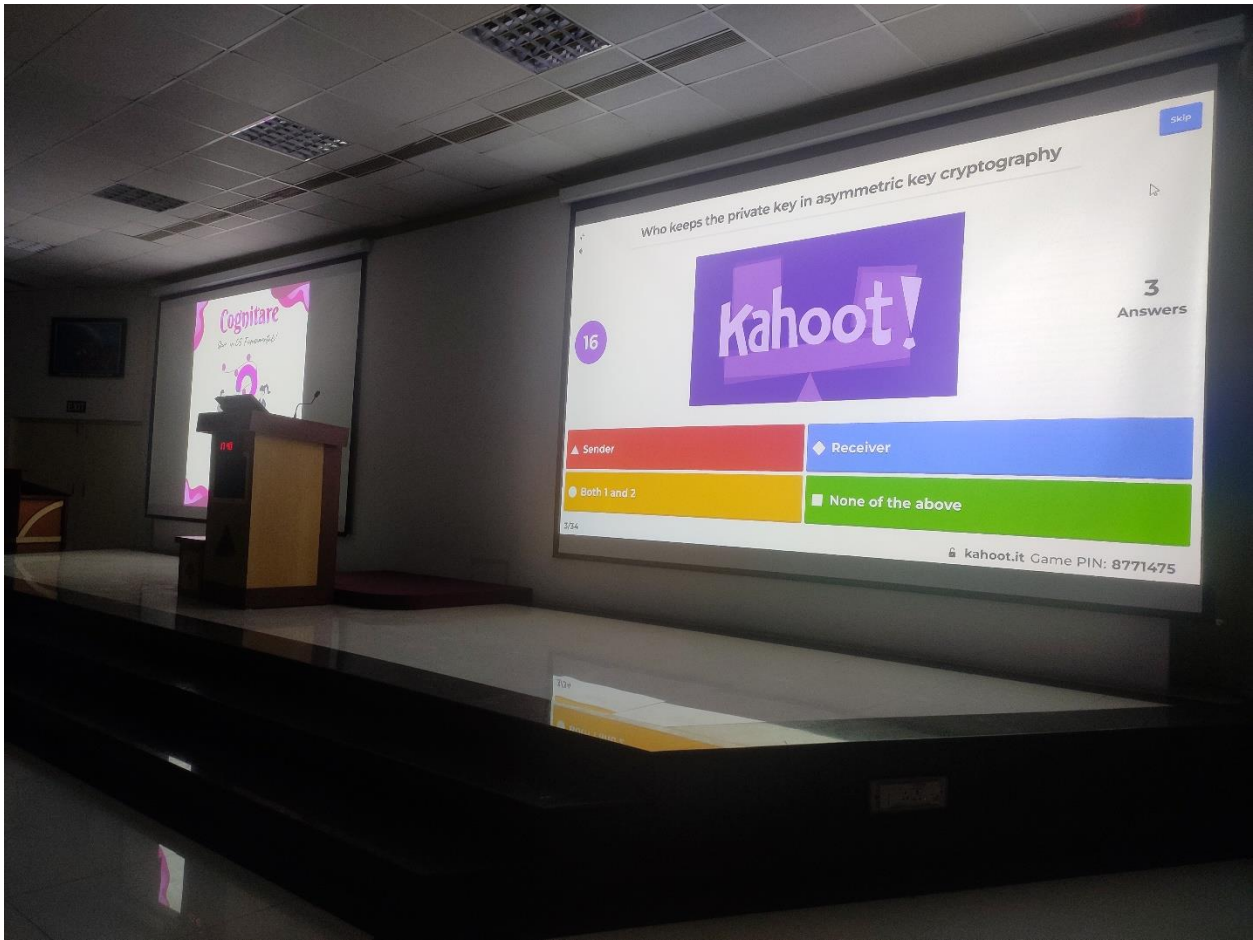
Quiz on CS Fundamentals!



15th Sept 2022

Venue : Mankeshaw Hall

Prizes worth 9K+





FE Induction Technical Board

FE INDUCTION

Dated: 10th OCTOBER

2:00 PM

Venue: Manekshaw Hall

On the eve of 10th October, the Technical Board of AIT, organized a session for the first-year students. The session intended to introduce the students with the board activities such as Technical Aakriti, Solutions (Inter college technical fest) and other events organized by the board.

The session began with introduction of the secretaries and joint secretaries, followed by a video, which displayed events hosted by the board in previous academic year. Then, each joint secretary, with the help of presentations, explained events organized by the board.

The students showed a great enthusiasm and were quite attracted towards the "Research related activities" organized by the board.

At the end of the presentation, the secretaries cleared the doubts of students and motivated them towards technical activities.

The session ended successfully and served its purpose.



EVENT - 3 SNAPHUNTS

ARMY INSTITUTE OF TECHNOLOGY

TECHNICAL BOARD

SNAPHUNTS

Dated 10th OCTOBER, 2022

5:00 PM

Venue: Central Gazebo

"Exploration is really the essence of human spirit"

- *Frank Borman*

The Technical Board has conducted another fabulous event, Snaphunts. This event was kept exclusive for first year students. So, the whole first year batch participated in this enthusiastic event, everyone more curious than the other. There was 70+ teams, that is 280+ students participated. It started just after the induction. The event kickstarted with an introduction to the event while the induction and the students were briefed to be at the Central Gazebo. This time it was google forms for a change. There was a team of 4 people. The riddle set consisted of 15 questions that pointed out certain places in the campus that the first-year students were introduced to at the time of campus tour. Each riddle funnier and sophisticated than the last one. Later on, scanners kept popping up on the participant's phones. Everyone got their set of riddles and vanished into the campus. Fascinating and cunning minds just swift past the other groups trying to solve the riddle. After an hour, the event wound up with students returning to the starting point and notifying the board members for completion of the quiz set and successfully submitting the google form.

Another successful and exciting event came to an end with the declaration of results on the social media handle of the board.

GLIMPSES FROM THE EVENT:



EVENT - 4 QUANTIVISUALS

ARMY INSTITUTE OF TECHNOLOGY, PUNE
TECHNICAL BOARD

QUANTIVISUALS

Dated: 20th OCTOBER

6:00 PM

Venue: Manekshaw Hall

“Knowledge is lost without putting it into practice; a man is lost due to ignorance; an army is lost without a commander; and a woman is lost without a husband”

- Chanakya

The Technical Board of AIT conducted a yet another successful and amazing event, Quantivisuals. It took place in the MANEKSHAW HALL dedicated to the Field Marshall Sam Manekshaw. A great number of 110+ tech enthusiasts participated in the event. It started with a heartwarming welcome to all by the board as it was the second event after SNAPHUNTS. For a change the board chose SLIDO as a platform to conduct the event and was a smooth flowing website. The questions were based on CS Fundamentals and aptitude questions ranging from easy to complex ones. It consisted of total 35 questions each having different time limits, making it even more interesting. The event started with best wishes and the participants were off brainstorming. There was a tough tussle on the leaderboard as the participants fought their way up.

At the end, it was a close call on the leaderboard and the event came to an end. It was declared by the board that results to **be declared on the social media handle.**

GLIMPSES FROM THE EVENT:





EVENT - 5 IDEATHON

ARMY INSTITUTE OF TECHNOLOGY, PUNE
TECHNICAL BOARD

IDEATHON

Dated 4th November 2022

5:00 PM

Venue: Manekshaw Hall

“Creativity is seeing what others see and thinking what no one else ever thought”

In series of great events, The Technical Board of AIT, conducted “Ideathon” which is also a part of Technical Adkriti. The event had 2 rounds. The participants were informed well before time through the social media handles of the Technical Board, and we received great participation for the first round. In the first rounds the teams were supposed to submit their original and innovative ideas through presentations.

After all the submissions, the best 15 ideas were picked up and were called for Round 2.

In the second round each team was supposed to present their ideas to the teachers within 9 minutes. Last one minute was reserved for questions. All the teams presented their ideas beautifully, they explained how they look forward to implement their idea and gave the pros of their project. A healthy interaction was observed between teams and teachers. The ideas were judged on the certain parameters such as originality, practicality, cost of its implementation etc.

The second round went on for around 3 hours and after all the presentations were over, the committee of teachers went on to declare the winners of the event. The event ended successfully with a lot of learning for all the participants.

Glimpses from the event:



Ideathon | *idea presentation...*

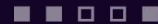


IDEATHON

Idea Pitching :
29th Oct till 11:59 p.m.

Idea Presentation :
4th Nov 2022

Prizes worth 10K+







EVENT - 6 VULCAN

ARMY INSTITUTE OF TECHNOLOGY
TECHNICAL BOARD

VULCAN

Dated: 11th November 2022

5:00 PM

Venue: Manekshaw Hall

"Innovation, as I understand it, is both about doing different things as well as doing things differently."

- Kiran Mazumdar Shaw

The great event of Vulcan arrives with the best paper writing event in the institute. This was a two round event that included participants to write a research paper on a vast range of given topics to choose from, in addition to their personal topics. The participants had to do this in a group of 3 – 4 members and submit the paper in a provided format to a specific email id of the board. The submissions were in great numbers. And there was a fixed quota for first termers to participate in the event. After selecting from a set of groups and passing each one of them through defined criterion of plagiarism check, a total of 15 groups were selected.

The anchors started the event with great quotes and giving a heartwarming welcome to the knowledgeable staff members who were also the judges for the event. The teams were called upon the stage and introduced with their team's name, plagiarism percentage and other necessary details. In the second round the teams needed to present a presentation on their topics in a detailed manner and its implementation with a time limit of 9 minutes and an extra 1 minute for questions and answers. This went on a loop with all 15 teams giving their best performances and a detailed presentation on their topics.

At the end of the event, the staff members compiled their decisions and points and gave it to the board members to select the winners of the event. The result was then declared on the social media platform of the board.

GLIMPSES OF THE EVENT:



Vulcan | *paper presentation...*



Idea Pitching:
5th Nov till 11:59 a.m.

Paper Presentation

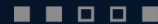
Round 1:

8th Nov 2022

Round 2:

9th Nov 2022

Prizes worth 13K+







TECHFEST (IIT BOMBAY)

ARMY INSTITUTE OF TECHNOLOGY, PUNE
TECHNICAL BOARD

TECHFEST (IIT BOMBAY)

Dated - 16 Dec to 17 Dec 2022

Venue - IIT Bombay Campus

PAINTBALL

A wonderful and joyful event of paintball was conducted at IIT Bombay during Techfest (tech event). A good amount of 30 interested fellows were allowed to attend with great enthusiasm. Everyone was excited to participate which could easily be seen by the distance of the queue out there. First all 30 participants were divided in a group of 2 with 15 members in each team and the instructions were given to each member on how to proceed the game and each and every rule related to it. Each player was equipped with a paintball gun, also known as a marker, and a hopper filled with round, paint-filled pellets. The game took place in a designated playing field, beside the Gymkhana of the campus.

At the start of the game, players took positions on the field and the game began when the referee blew a whistle or signals the start in some other way. Players then tried to eliminate the other team's players by shooting them with their markers. When a player is hit with a paintball, he was eliminated from the game and must leave the field.

The game continued until one team was eliminated all of the other team's players or has captured their flag. The team that achieved the objective wins the game.

The event was sponsored by the big gaming giants like. The paintball event was under the category of Ozone events. Ozone was the zone of recreation amidst the technical events of the Techfest. The fun part of Techfest, Ozone is synonymous with festive excitement. It was a kind of a place for someone looking for an adrenaline rush.

INTERNATIONAL EXHIBITION

A spectacular exhibition was organized by IIT Bombay during TechFest 2022 showcasing some of the innovations from around the world. It was one of the most visited programs of the TechFest and was open for all three days of the fest. People were really excited to visit the exhibition. As the event was really popular among the viewers, people had to wait in a long line to get in. But the wait was worth it, as you entered the exhibition, at the first booth, there were two cute robots waiting to interact with you which was quite fun. Then after advancing in the exhibition, you come across some of the really cool inventions and techs. There was a new part for gripping the objects in drones called Raptors, different robots from different companies, a driver's safety solution device etc. In each booth people were exposed to new fountains of knowledge. Every booth taught one or the other thing. Also, it was

a great opportunity for connecting to the people as people from all around the world had come there. Apart from international companies there were many Indian tech and research companies that were showcasing their products. DRDO had come with some combat vehicles and missiles, ISRO with miniature models of the satellites that they have launched etc. They ended the exhibition in the best way possible by showcasing the FI racing car made by Mahindra & Mahindra, such a beautiful car. It was one of the most memorable events of the Techfest 2022.

UBISOFT GAMING

Ubisoft is the creator and distributor of interactive entertainment and services and the maker of blockbuster favorites Assassin's Creed and Wii Just Dance. The company was founded by the five Guillemot brothers in 1986 in Brittany, France. It went public on the Paris stock exchange ten years later, making key acquisitions over the next several years (including Red Storm Entertainment, maker of the Tom Clancy games, and Blue Byte Software) and opening studios in Shanghai and Montreal. By 2011 Ubisoft was one of the world's top 10 independent publishers; the company now has more than 10,000 employees on six continents. Ubisoft organized a gaming arena under the OZONE program of the Techfest. They made displays, playing stations and more. They showcase their major games and let people come try those games. There were heart pumping action games like assassin creed: Valhalla, division heartland, for honor, rainbow six etc. there were also arcade games like mario and Brawhalla. Racing games including Treachmania and rider's republic. Each and every game was built with great visuals and control. People were really excited to play those games and the spectator crowd was huge. They also created a small dance floor game where people participated with great enthusiasm. It was surely one of the most fun and exciting events of the Techfest 2022.

AUTO EXPO

The event auto expo was held in three different phases from 16 to 18 dec where all the luxury cars were present to grab the attention of the audience out there. Some of the brands worth mentioning were Mercedes Benz, Audi, Porsche, BMW, Nissan etc . Various sports car was also present there where the sound and the roar they made while entering the stage was on another level where the sound echoing miles to the whole campus, grabbing and developing the interest of other persons to have a look over them. The total cost of all the cars featuring in event would be in millions of dollars thus giving us the insight of luxury and performance they provide. The enthusiasm of the people to just have a look over all these cars were on another level. Auto expo gave a platform where all the automobile companies show their new concepts, technology, and new ideas to influence the people. All the companies show their competition skills. Many new cars with electric technology with luxury and comfort were introduced by the Mercedes, Audi, Porche and various other industry giants. The main aim to conduct these exhibitions was to present a stage where the companies showcase their new technologies. The auto expo comes under various exhibitions event of Techfest. Every year, Exhibitions mesmerizes thousands of young minds by presenting technological avant-grade of the world, helping them to broader their vision and to update their technical know-how.

UNMANNED AUTONOMOUS GROUND VEHICLES

The TECHNICAL BOARD conducted a trip to INDIAN INSTITUTE of TECHNOLOGY BOMBAY for TECHFEST 2022. The main attraction there was TechConnect which is an exhibition placed within the campus

where the prototypes built or technologies invented by the IITians were showcased to the tech enthusiasts and the students who were a part of the prototypes, disseminated about their projects and explained about the working model and functions of the prototypes.

UNMESH MASHRUWALA INNOVATION CELL IIT BOMBAY PRESENTED PROJECT SeDriCa (Self Driving Car) IITB has a 5 years of experience in autonomous vehicles and had won awards like IGVC 2017 which was organized in Michigan, USA and in MAHINDRA RISE DRIVERLESS CAR CHALLENGE were among TOP 11 Teams out of 250 in INDIA and were awarded a MAHINDRA E20 CAR for development and research purposes the developed car has a DUAL CAMERA SETUP with lane detection and has a high Accuracy GPS for localization and path planning and STEREO VISION CAMERA with depth sensing technology and a 2D LiDAR sensor to detect obstacle detection system for detecting objects in front of the self-driving car.

And everything is controlled by a module called as CAN MODULE, It has a tri-directional obstacle avoidance sensor and cameras all around the car which reduces the risk of crashes and in IITB TECHFEST 2017 the SeDriCa had more than 50000+ visitors.

IQIPSE NOVA

Depanshu raj popularly known as Iqlipse nova, He is graduate of *Indian Institute of Technology, Delhi*. He is a *chemical engineer, YouTuber, singer, social media influencer* and he is also Co-founder of BigBrainco.

The show was conducted in IIT Bombay, techfest and with the help of TECHNICAL BOARD OF AIT many students from AIT could attend the live show with great enthusiasm. A large amount of people can be seen attending his event and whosoever attending his event will never forget that evening. That day we learnt many life lessons from him, his journey of IIT, the choices he made in his life, how he handled things in his life, he talked about his musical journey his new release *mera safar* is becoming and many got a chance to see the live performance of *mera safar*. And he also sang his one of the upcoming song *Meri bari*, that will release in few months in 2023. After that he also motivated everyone to explore opportunities, and lastly there was a photographic session where everyone took photos with him.

ROBO WAR

A huge event of robotics called robowar was held in OAT. It was a very energetic event where 2 (or more) teams bring their robots in robocar arena to fight with each other's robots. The arena was 32*32*12 ft closed arena. It was closed by metal strips and polycarbonate sheets. It was finals of 15 kg weight category. The rules were simple robots could have any dimensions but their weight could not exceed 15Kg. robots were allowed to use any kind of magnetic weapons, cutters, flippers, saws, lifting devices, spinning hammers etc. A good amount of 2000 follows attended the event with great excitement. In finals, 3 teams A, B, C were ready to fight with their opponents. Along with teams, audience was also very excited for the match. And then whistle was blown, ROBOWAR! The match was started. In the beginning of the match, Robo A starts off very well by giving some hard hits to their opponents. Robo A was showing his strength. Robo B had very nice and very unique stability mechanism. And Robo C seemed very strong and stable. The match was going very well but robot B got movement issues after getting some strong hits by Robo A and Robo C. Team B fans were very disappointed. Then there was very close match between team A and Team C. one hit from team A,

one hit from team C, the match was very interesting. Everyone was sitting on edges with excitement and curiosity. The cheering was getting louder and louder. The match was going very well until robot A got a hit from robot C and robot A got flipped and could not manage to get up. And that was the end of the finals. Team C was the winner. It was very fun event. Everyone had fun. We learnt many things from this event (/This event taught us many things) like competitive spirit, team work, sportsmanship, etc.

DRONE SHOW

A bright and colorful event took place grabbing attention of everyone present there. There were over 200 drones (just an idea) spreading their magic in air. All drones were programmed in computer. All drones were lightweight, consists of a battery, an LED module, and GPS sensor. And a huge crowd of 20k+ people was experiencing that magic. It started off with making some waves with colorful lights in the air. all people got excited when it was started. Then it writes “#dream on” in the air. After that they made Techfest logo in the air with sliding T and F. Then a small dance with lights. The excitement was on its peak. And to take it to next level, they made map of India with saffron, white and green color. Whole crowd was crazy at that moment. Then they generated a light wave in map of India. They ended with some more light show. We learnt a lot about drone and drone show. Everyone enjoyed a lot. We learnt lighter the drone, the power it needs to stay airborne and the easier to control. And drones were pre programmed.it was overall a great experience.

LASER TAG AND RC CAR RACING

Laser Tag was an event organized at the Techfest IIT Bombay and with the help of TECHNICAL BOARD OF AIT many students from AIT were able to enjoy this adventurous event. It was an electrifying event in which a team game was organized to shoot rival team members with laser.

Each team member was equipped with a body suit with five sensors on, to detect the laser. A specific area was set up to simulate the battle ground with some obstacles. Where each team was to defend itself and try to knock out more hits from rival players. A large number of people took part in this event. People have to wait in long que for their chance for this enjoyment.

A thrilling event of IC engine car racing was organized at Techfest IIT Bombay. Many World Rankers were in the arena to compete against one another to win the prize money of INR 1,30,000. Due to the efforts of TECHNICAL BOARD OF AIT many students were able to take glimpse of such world class event.

There were variety of IC engine car some were electric and some with nitro power. The thrill to see such a engaging event where the competition was so tense each part of a second mattered. And the requirement for accuracy on each turn and each jump was on another level. It was a great experience for all the students. Where with enjoyment we also learned and got inspired a lot from the event.

TECH CONNECT

BRAIN CONTROLLED WHEELCHAIR: 15% of the world population has some form of disability and require assistance to locomote. The Virtual wheelchair mimics dynamic behavior of real wheelchair through the Brain Machine Interface (BMI). The virtual wheelchair movement is successful in 4 directions—

Front, back, left and right. The Electroencephalogram (EEG), connected to the wheelchair user, detects changes in the brain signals allowing control for the direction of the virtual wheelchair movement in real time.

ATTENTION DETECTOR: Amidst the physical classroom situation, teachers observe the facial expressions of students for determining their attention levels. In consideration of the post-pandemic online classroom scenario, mobile brainwave sensors will be helpful to gauge easier and reliable attention levels for teachers, students and primary caregivers. This will not only encourage students to remain attentive but can also enable teachers to customize their learning content for efficient learning of students.

WICTRE: Its FULL FORM IS WATER INNOVATION CENTER TECHNOLOGY. So basically, the water we use for drinking purpose consists of Ions of Barium, Arsenic, cadmium etc. which are usually removed by normal RO machine and the microorganism present in it is killed by UV light present in RO but there is one more aspect which contaminate the drinking water and that is Industrial dyes. Industrial dyes are one of the dominant chemicals that make water unfit for drinking. Among these dyes, Methylene blue (MB) is toxic, carcinogenic, and non-biodegradable and can cause a severe threat to human health and environmental safety. It is released in natural water sources, which becomes a threat to human beings and living organisms, hence there is a need to develop an environmentally friendly, efficient technology for removing MB from wastewater. Photodegradation is an advanced oxidation process widely used for removing (MB) Methylene Blue from freshwater.

SOIL MOISTURE SENSOR, INTEGRATED CIRCUITS AND SYSTEMS: So basically, this device is mainly constructed with a setup of electrolytic capacitors inside the soil which is being inserted inside the soil with a particular dielectric constant and when the water start dripping inside the soil, the equivalent dielectric constant shift toward the dielectric constant of water and this is how the amount of irrigation is determined. This is used for strategic agriculture and it is cheapest of all the same kind so that everyone can afford this device and it is very easy to use also. This Soil Moisture Sensor is very simple. Here we have used a soil moisture detector probe to sense the moisture in the soil and an NPN transistor to trigger the Buzzer and LED. This soil moisture detector probe is homemade and built using general purpose PCB (Printed circuit board). Buzzer and LED are used as an indication of soil moisture detection.

AIRSHIP PROJECT: Airship is basically a full-sized balloon mechanism working air body which is filled with light gases like helium or hydrogen. This type of airship is majority used for the branding and advertising purpose of big commercial brands. They might have less velocity as compared to other air bodies like helicopter or airplane but this airship has the better aerodynamic stability. "We started the work eight months back and have drawn inspiration from our earlier Akashdeep aerostat project. The feasibility study for the unmanned airship is over and we are all set to enter the design phase. With a 22-m length, seven-meter diameter and weighing around 350 kg, the airship gives the option for both surveillance and tourism. "By developing Akashdeep, we learned the aerodynamics shape optimization, fabrication technology and integration of payload and systems.

IIT BOMBAY ROCKET: IIT Bombay rocket is basically an air body made by 30 students of IIT Bombay which basically consist of two models of 1 and 27 kgs respectively, for support purposes parachute is used. This body also contains pressure dominating sensors, with a budget of 8 lakhs, this project comes out to be a successful project and practicing in us very soon. The IIT Bombay Rocket Team unofficially started as a small group of rocket enthusiasts in the summer of 2019. The Team plans to

participate in Spaceport America Cup 2022. The rocket consists of many interacting subsystems, each of which handles certain aspects of the rocket's testing, launch, and recovery. A vast range of disciplines in the functionality of the rocket is covered. In thrust we trust. The propulsion subsystem is the heart of the rocket. Very simply, their function is to produce thrust. The individuals in charge of the subsystem also ensure that the motor is stably mounted and remains secured during flight. The Team would also be running simulations to gather flight data useful for the optimization of the rocket's trajectory.

TIH FOUNDATION FOR IOT AND IOE: Technology Innovation Hub for translational research on IoT (Internet-of-Things) and IoE (Internet-of-Everything) (TIH-IoT), is conceptualized by the National Mission on Interdisciplinary Cyber Physical Systems (NM-ICPS) in its quest for Industry 4.0 and related areas. In order to leverage the strength of academia in innovation and to ensure proximity to captains of industry, the TIH-IoT is established as a section 8 company (not for profit) in IIT-Bombay. The TIH-IoT aims to emerge as a world leader in IoT and IoE technology solutions through multidisciplinary in-house R&D, interact with world leaders in this area, and support the industry for the transformation. TIH-IoT will leverage fundamental and applied research to innovate and apply to industry needs. At TIH-IoT, research and development activities are focused on agriculture, health, industrial applications using IoT-based wireless sensors networks, bio-IoT, aquatic IoT and distributed/Hybrid IoT.

GLIMPSES FROM THE EVENT:







TECHNICAL AAKRITI

ARMY INSTITUTE OF TECHNOLOGY
TECHNICAL BOARD

TECHNICAL AAKRITI

Dated: 11th – 13th March

Venue: AIT Campus

The so long-awaited event of AIT, the TECHNICAL AAKRITI. Started with an uplifting and inspirational inauguration followed up by a great speech by Brig. Abhay Bhatt sir (Director). Off with a great start, the first event was conducted in the Raman Theatre of AIT named Placement Apti. Many participants showed up for the event in mass numbers, everyone in full spirit to place his branch at the top of the leaderboard. There was a chain of events that were held in the three days. Branches had their ups and downs but later everyone had their contribution. There were various events to suit everyone's field of interest, it had gaming, core, coding and open events. Sending the best of their branches in a particular event, it was a competitive environment. The rush was all around, people going to the event venues, the organizing team holding everything together and managing the crowd.

The ending ceremony was held in the Raman Theatre, with declaring the winning branch of every event. For the final suspense, the winning branch was declared. The theatre was alive and full of cheerful screams and enthusiasm. The ceremony ended up in a JAM session where the winning branch was called upon the stage and handed over the trophy.

SOLUTIONS

ARMY INSTITUTE OF TECHNOLOGY
TECHNICAL BOARD

SOLUTIONS

Dated: 21st – 23rd April

Venue: AIT Campus

SOLUTIONS, a premier annual Technical Fest organized by the Army Institute of Technology, Pune was inaugurated on 21st April 2003 by Brig Abhay Bhatt (Director) and was successfully conducted by Technical Board between the 21st to 23rd of this April. It had more than 20 events in various respects such as coding, gaming, robotics, etc. This time SOLUTIONS also had events such as PROJECT JUPYTER and FLASH 500 where participants had to use their knowledge of Machine learning and reach a solution. For participants' ease, the events were conducted in both online and offline modes.

This year, SOLUTIONS 2023 saw incredible participation of more than 5000 students from many premier institutes of India such as IITs and NITs bagging various positions in many events. The Fest not only had just events but included an amazing and insightful session by Kushal Vijay (Microsoft Engineer, YouTuber Sensation, and former intern at Microsoft and Stack Guardian) which helped a lot of students to clear their career-related doubts.

In the end, a heart-storming bike show was conducted on the campus which thrilled the audience with their unbelievable wheelies, burnouts and other stunts.