

# DARPAN

AHMEDABAD INSTITUTE OF TECHNOLOGY



## Message from Principal's Desk



**Dr. Sarada Devi Mandalapu**  
Principal, Ahmedabad  
Institute of Technology

It is a matter of great pride and satisfaction for Ahmedabad Institute of Technology to bring out the newsletter DARPAN. I congratulate the staff and students who had presented their ideas and thoughts in this newsletter. Our institution has completed seventeen years since its inception in 2004 and witnessed great milestones. The college has made tremendous progress in several academic and non-academic areas relevant to students and staff. This newsletter is like a mirror that reflects all sorts of activities organised in the institute. With this, we offer a regular dose of college-related news, updates and other important information. The articles of different sections show the original thinking and writing skills among the AIT'ians. I congratulate the editorial team on accomplishing this task in record time. My congratulations and best wishes to the entire team.

## Flashback 2021

- Dr. Sarada Devi Mandalapu (Principal) was invited as "Guest of Honor" on the occasion of World Iron Deficiency Day, organized by Cadila Pharmaceuticals Ltd.
- Signed MOU with various industries & institutes for skill development.
- Conducted GUJCOST Sponsored online national-level one-week STTP on 'Machine Learning'.
- Dr. Mohit Diwan (HOD Mechanical / Auto Department) published Book titled "Lean Manufacturing and S.S Pipe industries" from Europe with ISBN in six different languages of Europe.
- Prof. Apurva Indrodia (Mechanical Engineering) published a paper on "Lean Manufacturing Tools Effectiveness in Small and Medium Scale Enterprise" (SMES).
- Prof. Sandhya MC (Civil Engineering) published a paper on 'Geospatial mapping of data related to COVID-19' @International journal & conference held in Bali, Indonesia.
- Patel Parth Pankajbhai (student of 2017-21 batch, Civil Engineering), scored GATE, currently doing M.Tech Structural Engineering @ MS university, Vadodara.
- Three students of the Civil Engineering & Electrical Engineering department successfully completed GTU's Vishwakarma Yojana projects, guided by Prof. Tanha Shah (Nodal Officer).

## Newsletter Committee

### Editorial Team:-

- Dr Hetal Jani
- (In-charge Newsletter & Magazine committee – MBA Dept.)
- Prof. Deepali Mandalia (In-charge Newsletter & Magazine committee – MBA Dept.)
- Prof. Darshan Bhatt (Member – EC Dept.)
- Prof. Sandhya M.C (Member – Civil Dept.)

### Faculty Coordinators:-

- Prof. Nilesh Bhatia (Member – EE Dept.)
- Prof. Shreya Thakore (Member – Gen. Dept.)
- Prof. Sweety Maniar (Member – CE/IT Dept.)
- Prof. Lokesh Rathi (Member – ME Dept.)

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## Hydrogen as clean energy

Green Hydrogen is seen as a viable alternative to fossil fuels, crude oil, and pollution-making energy. Hydrogen is the earth's most abundant element but is not available in its pure form, i.e. water (H<sub>2</sub>O) consisting of two hydrogen atoms, but it is not pure as oxygen is also present with it, in order to separate both requires energy which is done by a process known as electrolysis – breakdown of molecules in the presence of electricity. Hydrogen can also be extracted from fossil fuels by chemical reaction or heat but it is enormously polluting in nature as the by-products of chemical reactions are CO<sub>2</sub> and CO. This is how various shades of hydrogen have been formed which are brown hydrogen- produced by coal, grey hydrogen- produced by natural gas, blue hydrogen- produced by natural gas but emission stored in carbon capture and green hydrogen – produced by water (pollution-free). Potential applications of Hydrogen are Fuel-Cell Hydrogen Electric Cars (FCEV), Fuel-Cell Hydrogen Electric Trucks, Hydrogen and Liquid ammonia powered Container Ships, Green steel Refineries, Hydrogen-Powered Electricity Turbines and Home use of Hydrogen for Heating and Cooking. Hydrogen is the unique energy vector that can do deep decarbonisation of the transportation, Industry and Power sector.

(Asst. Prof. Nilesh Bhatia, EE Dept.)

## Are we inviting disasters ?

Kerala, God's own country, is known for its palm-lined beaches, ravishing backwaters, tea plantations, wildlife sanctuaries, mountain ranges, and pleasant weather. But in the last few years, nature itself is showing signs of distress in the form of unpredictable climate changes, unusually high rainfall, frequent flood series, and landslides. One-sixth of Kerala's population was affected by the recent recurrent floods. The population density of Kerala is 860 persons per sq. km, which is on the higher side as compared with other Indian states. Satellite imagery detected drastic changes in Land Use Land Cover pattern, especially in urban & rural built-up areas. Due to land scarcity, people started filling up low-lying areas, paddy fields, water bodies, encroaching coastal lines and sloppy hillsides for construction activities. Illegal sand mining & rock quarrying also aggravated the flood situation and land sliding. If we are ignoring nature's warning signals, we have to pay a heavy price for it. Environmental Impact Assessment [EIA], Coastal Regulation Zone notifications [CRZ], Building bye-laws, Guidelines, Government norms & strategies are strictly followed for evaluation, planning, approval, designing and construction of any structures. Authorities should utilize the benefits of advanced technologies like Remote sensing, GPS, RFID & Geo fencing to monitor and track illegal activities. Exploring alternate construction materials instead of sand to stop uncontrolled river sand extraction. Finding out possibilities to interlink rivers for the smooth and uninterrupted flow of excess water to the ocean. This is not just the case of Kerala; the devastation is waiting to happen anywhere. Time is running out, this is a wake-up call to think and act wisely. 'TOGETHER WE CAN' Prevent & control disasters.

(Asst. Prof. Sandhya M.C, Civil Dept.)

## Agile supply chain management in the retail industry

Agile Supply Chain Management combines responsiveness in business and increases competency. It also increases flexibility and quickness in the manufacturing and distribution of the product. An agile supply chain helps in the globalization of the product, where a standard quality check is done to attract loyal customers and make a new customer base. The retail supply chain management is balanced through cost control and improved customer experience all over the market. There are many benefits of agile supply chain management in the retail industry. Agility is mostly focused on avoiding risks and a potential shortage of raw materials and other resources, like finance, within the company. It is good at eliminating excessive inventory and reducing the overall cost. The retail industry is blessed in the next few years if they follow agility in the business and take the supply chain model more seriously. In the future, retail, agility will be used as the main plan for increasing profit and decreasing supply chain risks. It will help in improving consumer experience as delivery of ready goods will be quicker and easier. Agile supply chain management is a good technique for manufacturing in bulk in the future.

(Bhumika Vanal, Student of 6th semester, Mechanical Dept)

## Contemporary Situation of ongoing system of Indian education

In contemporary times, the world is dominated by education. Here are a few words about the ongoing system of Indian education, which has become troublesome for students. The Indian education system has a really uncanny resemblance with all other nations. It is inevitable that the government has put excessive pressure on juveniles for the passive type of learning instead of working on the student's ability for their personal development. Moreover, today, getting a graduate certificate requires astronomical sums of money, although students work for peanuts in their field job. Thus, an average person becomes an employee in a company run by an uneducated person and fulfills the dreams of the company's host. Furthermore, such a critical circumstance increases brain drain, poverty, unemployment, and many more, which affects the overall economic progress of the nation. However, in most of the alien lands, the education system puts more stress on the dexterity and talent of the student. Almost all countries, irrespective of India, allow students to work for their own interests, which ultimately makes them successful people. For instance, Bill Gates, Sundar Pichai, and many others did work hard on their hidden talent and made their success stories.

(Unnati Birare, Student of 7th semester, E.C Dept)



## ✓ Petrol price hike in India

Fuel prices play an important part in overall inflation in India. Rising petrol/diesel prices are seen as a reflection of the common man's economic suffering. The petrol prices are rising in India because the government is taxing petrol. The government always levies taxes on petrol, but this time the taxes are unusually higher. India is experiencing an economic downturn and is facing a recession, while unemployment is also known as stagflation. To stimulate the economy, the government has used "pump-priming" which involves infusing large amounts of cash into the economy. This cash injection is through tax incentives, subsidies, loans, DBT, interest rate cuts, etc. India also suffered from a global Covid-19 pandemic that resulted in a national lockdown for several months. To recover from these problems and make the pump easier to prime, the government needs cash, which is bought in the form of high excise taxes on fuels. When the world's oil reserves are completely depleted, the world will be left without another source of fuel. To address this issue, countries are working on other energy sources such as electric vehicles that run on lithium, and iron batteries, etc. Electric vehicle pioneer Tesla recently arrived in India and registered in Bengaluru. How Can India Bring the End of the Oil Age?

- \* Create Infrastructure for Renewable Energy
- \* Encourage People to Use Public Transport
- \* Use Electricity in Public Transport
- \* Raise Awareness
- \* Give Incentives and Subsidies on Electric Vehicles

(Abhishek Shrivastav, Student of 7th semester of Civil Dept.)

## ✓ The fall of India's biggest IPO

Paytm was the successful unicorn of its time, which bought the digitalization of payment among Indians. For the past two months, it has presented itself as the largest IPO in the country. But the share of popular Fintech faced around 27% crash from its issue price on its opening day. It brought shock among trading debuts, whereas experts were expecting it. Of course, many stocks faced a slow start. Coffee Day Enterprises Ltd dropped by 17.6 % in Oct 2015. Reliance Power Ltd, which fell by 17.2 % in Jan 2008. ICICI Securities Ltd fell by 14.4 % on its debut in March 2018. But Paytm's IPO was Rs 18,300 crore, which was the biggest of them. Its fall has raised questions around the pricing of upcoming IPOs MobiKwik and OYO. Let's see the reasons for the fall of the largest IPO: 1) Paytm is a loss-making company. However, its loss has been reduced from Rs 4,231 in FY19 to Rs 1701 in FY21. But its total income has declined too, from Rs 3,579.9 in FY19 to Rs 3186.8 in FY 21. There is no clear guidance from management on when the company will make money. 2) Overvaluation of share. Being a loss-making company and launching an IPO of the size Rs 18,000 crore is unrealistic. Paytm's IPO was extremely expensive at Rs. 1,250. It got listed at a 9 % discount on its offer price. Plus, the business model of Paytm is still unclear. 3) High competition in the digital payment sector. Since all the banks, private, and PSUs are developing their mobile applications, the completion in the digital payment market will intensify. Other private players like GooglePay, PhonePe, or JioPay are diversifying themselves. Customers can use more than one platform for digital payment. Customers can easily switch to other platforms too. Technologies are changing at the speed of light. Keeping mobile applications updated as per the latest technology is a challenge. Is the disappointment given by Paytm temporary, or will it be forever? Let's keep an eye on its upcoming balance sheets and profit & loss statements to get the answer.

(Shweta Singh, Student of 3rd semester, MBA Dept.)

## ✓ Is NFT the future?

Non-fungible token (NFT) is a collectable item represented by a digital asset on the blockchain. This indicates that there are no subsequent or additional copies of the same work of art. At its most fundamental level, an NFT is a digital asset that establishes ownership of one-of-a-kind physical or digital assets, such as pieces of art, real estate, music, or videos. NFTs may be thought of as contemporary collectables. In basic words, fungible refers to anything that can be replaced. For instance, if you go to a store to get a Kit-Kat, it makes no difference which Kit-Kat you choose - since each Kit-Kat is identical. You may even exchange this Kit-Kat for another and get the exact same chocolate. As a result, it is replaceable. And, as obvious as it seems, non-fungible implies non-replaceable. For instance, the world-famous Mona Lisa artwork is nontransferable. It is unique and cannot be replaced since it is one of a kind. You may photograph the artwork or purchase a print, but there will always be just one original. NFTs may be likened to a digital version of the Mona Lisa artwork. Thus, NFTs are digital assets that may be purchased or traded online but lack tangible forms of their own. They are only tokens that provide evidence of ownership of digital artworks.

(Asst. Prof. Kishan Patel, Civil Dept.)

**Mangal Murti Shri Ganesh by - Patel Jigna**  
(Student, CE Dept, Sem-I)



**Artistic Masterpiece by - Vaishnavi Chawla**  
(Student, CE, Sem-I)



## Learn By Fun

### Technical Word Puzzle by Krishna Darji (IT-SEM-I)

L	A	C	I	N	H	C	E	T	L	E	G	S	L
F	O	C	V	P	R	O	C	E	S	S	O	R	E
S	A	O	O	L	L	B	H	A	R	L	T	I	N
V	C	T	L	R	S	D	O	T	N	C	R	S	R
E	O	C	T	L	E	L	D	I	T	L	C	H	E
R	N	E	A	H	O	E	T	L	L	C	E	E	E
A	H	D	G	H	E	A	I	E	R	E	I	V	N
E	I	I	E	S	H	A	F	T	R	C	R	H	I
L	I	O	T	O	D	E	V	I	C	E	N	I	G
C	T	D	G	D	L	S	I	G	R	L	G	O	N
U	T	E	R	H	P	C	T	C	E	O	A	S	E
N	C	R	T	L	T	I	O	E	O	C	I	D	T
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P	V	I	I	S	O	L	A	R	C	O	D	P	L

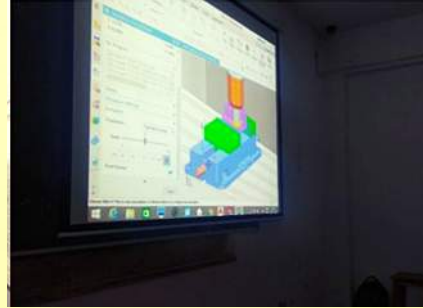
(Answers of puzzle will be published in the next edition)

**Search the appropriate technical word based on the given hints:**

1. \_\_\_\_\_ energy is an idea whose time has come.
2. \_\_\_\_\_ is a two-terminal electronic component that is made from semiconductor materials.
3. The step-down transformer is a device used for stepping down the \_\_\_\_\_
4. A computer is a \_\_\_\_\_ for processing information
5. \_\_\_\_\_ is a person whose job is to design and build something using scientific principles.
6. \_\_\_\_\_ is the part of the steam engine where water is heated to provide power.
7. \_\_\_\_\_ is a rod forming part of an engine that turns in order to pass power onto the machine.
8. \_\_\_\_\_ is a piece of metal in an engine, that fits tightly inside a cylinder.
9. Chandrayaan-2 mission is failed due to some \_\_\_\_\_ problems
10. For the gamer who plays high-end video games, you'll need a fast \_\_\_\_\_ and lots of memory
11. Kundankulam is the largest \_\_\_\_\_ power plant situated in Tamilnadu, India.

## CAD CLUB ACTIVITY

Five days workshop from AIT CAD-CLUB to Students



**SOLID EDGE NX WORKSHOP - 30 hrs training by External Faculty from 3D technology HANDSON**

Workshop conducted by:- Mechanical Engineering Department

Faculty Coordinator:- Prof. Apurva Indrodia

Student Coordinator:- Janak Rabadiya (Sem-5, Mechanical Dept.)

"30+ students from Final year and Pre final Year participated in this club training ."

## MARKETING CLUB

Activity by MBA Department



**PRODUCT AND TAGLINE DESIGNING WORKSHOP**

Activity conducted by:- MBA Department

Faculty Coordinator Name:- Prof Anand Brhambhatt, Prof. Deepali Mandalia

Student Coordinator Name:- Aayush Doshi, Astha Pathak

"Semester 1 & 3 students participated in this club activity, wherein students' teams designed their product along with tagline from the industry given by faculty coordinators."