



Mechanical Engineering Newsletter
"YANTRAMSHA"
PES INSTITUTE OF TECHNOLOGY AND MANAGEMENT,
 Sagar Road, NH-206, Shivamogga – 577 204

OUR VISION

"To emerge as a center of excellence in the field of Mechanical Engineering Education, Research and Entrepreneurship".

**Group Photo of 2018-2022 Batch Students
(2022 Pass out Students)**



Ms. Vaishnavi and Ms. Nityashree of Mechanical Engineering Department have won First place in Technical Quiz Competition in Srishti fest held @ BMS College Bangalore on 25th to 27th July 2022.



Mr. Akash, Mr. Stephen, Mr. Abhishek and Mr. Balraj of Mechanical Engineering Department have won Third place in "ROBO RACE" Competition in Srishti fest held @ BMS College Bangalore on 25th to 27th July 2022.

Students of Mechanical Engineering Department Mr. Mithun P, Mr. Sanjay, Ms. Akanksha and Mr. Akash have secured 2nd Place with 5000/- cash prize (ROBO RACE Competition) in ARORA – THE DIVISION LEVEL TECHNICAL FEST held at PESITM, Shivamogga 22-23 June 2022

OUR MISSION

M1 – Creating a platform for effective and continuous learning by offering a strong technical knowledge and skills.

M2 – To motivate the students in involving academic and research activities for their career excellence and being responsible global citizens.

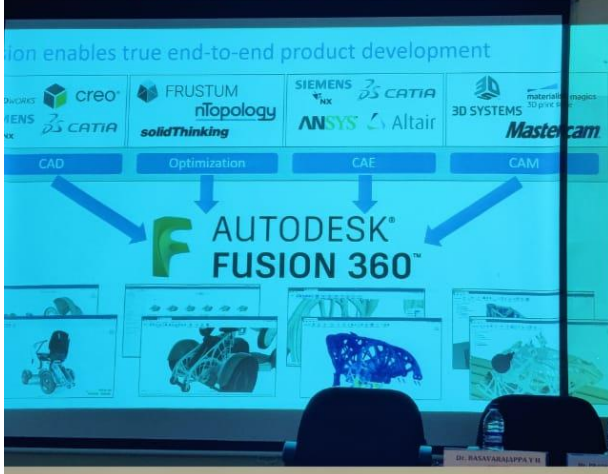
M3 – To include social, ethical and entrepreneurial values for the professional accomplishments.



Department of Mechanical Engineering has organized the AUMNI MEET on 07.05.2022



Department of Mechanical Engineering has organized the inauguration of ROBO Club of PESITM and One-day workshop on Automation and Robotics was arranged on 28th May 2022



1 Day SDP was organized on "AutoDesk FUSION - 360" by Medhini Technologies, Bengaluru in Association with Dept. of Mech. Engg., PESITM, Shivamogga on 08.04.2022

"Mechanical Engineers can become a mechanic; software engineer cannot become software"

- Surya Shetty (6th Sem ME)

"Technology will not replace great TEACHERS but Technology in the hands of great TEACHERS can be Transformational"

- George Courous

WIRELESS CROSSING GUARD

Some 3000 Ann Arbor, Michigan, motorists are engaged in a Department of Transportation study using wireless car to car connectivity to avoid collisions. Depending on the results, Wi-Fi could be mandatory in car Equipment by 2020. Taking the idea further, GM wants to help drivers avoid mowing down pedestrians. The underlying technology, called Wi-Fi Direct, allows a smart phone in a car to communicate with a phone carried by a pedestrian without routing the dialogue through cell phone towers. The direct connection cuts the time required to identify a risk from eight seconds to one.

- Syed Faizan 8th ME (4PM18ME059)



SUPER PLASTICS



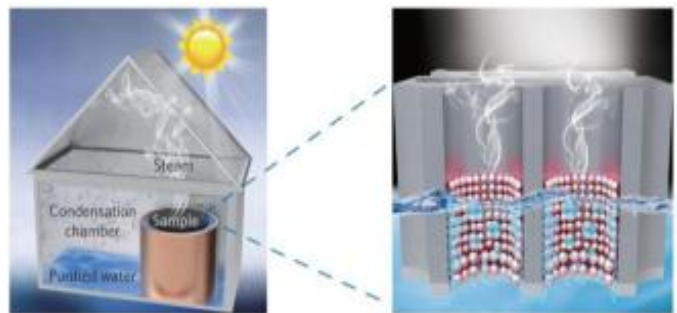
Now that Carbon fiber composites are gaining round, suppliers are investigating other hybrid materials capable of improving collision performance and saving weight. BASF, Bekaert, and Voest alpine are collaborating on thermoplastics fortified with steel cord. Bumper beams, body members, and interior trim made of injection molded, steel reinforced plastic combine excellent energy absorption and structural integrity characteristics with low manufacturing complexity and cost. Some clever car maker will surely add the chrome or faux wood grain finishing touch.

- Akanksha 6th ME

ENERGY-EFFICIENT WATER

Water scarcity is a worsening ecological problem in many parts of the world due to competing demands from agriculture, cities and other human uses. Where freshwater systems are over-used or exhausted, desalination from the sea offers near unlimited water but a considerable use of energy – mostly from fossil fuels – to drive evaporation or reverse osmosis systems. Emerging technologies offer the potential for significantly higher energy efficiency in desalination or purification of waste water, potentially reducing energy consumption by 50% or more.

- Sunpreet Singh 8th ME



"Without MECHANICAL ENGINEER,
Physics is just theory....."

- Shivakumar (6th Sem ME)

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GOOGLE GLASS



Perhaps *the gadget to define 21st century*, Google Glass not only showed the world how smart, desirable and potentially life-changing technology can be, but also how its continued development can polarise opinion. On one side the technology fans were led, for better or for worse, by Robert Scoble - he who took a photo of himself wearing Glass in the shower.

They adored Glass' science fiction-made-real ability to beam a head-up display into the wearer's eye; they praised Google for thinking way outside of the box while its rivals held back, and they would probably be queuing up now - if only they knew where or when Glass will even go on sale. And on the other side, there are the critics - those who see Glass as an invasion of privacy, a dangerous distraction for drivers, and another unwanted step away from reality. But isn't that the very point of technology and innovation - to push the boundaries of what's possible and see what happens? Only available to 'Explorers' and developers for now, Google is expected to make a retail version for everyone sometime next year - it'll be cheaper than the current model, but whether it'll be a success remains to be seen.

- Sujala (4th Sem ME)

When you fail you learn from the mistakes you made and it motivates you to work even harder.

- Shivalingesh A B (8th Sem ME)

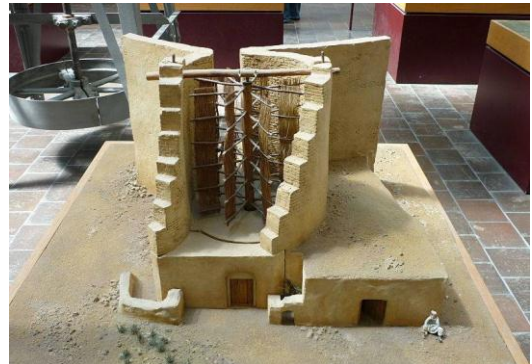
Successful engineering is all about understanding how things break or fail.

- Vignesh Nayak (4th Sem ME)

-Art By
Vaishnavi Raj
4th Sem MED



WINDMILLS BEGAN TO REPLACE MANPOWER



Windmills are incredibly ingenious devices that are able to convert wind power into useful mechanical work. This is achieved by using large 'sails', usually made of wood, to impart a rotational force to the main shaft. This, in turn, can be used to do work, such as grinding flour.

The Persians were some of the first people to harness the power of the wind to do work when they began building early forms of windmills in Iran and Afghanistan in around the 7th Century AD.

These early windmills consisted of sails radiating from a vertical axis within a building, with two large openings for the inlet and outlet of wind, diametrically opposite each other. The mills were used to directly drive single pairs of millstones without the use of gears.

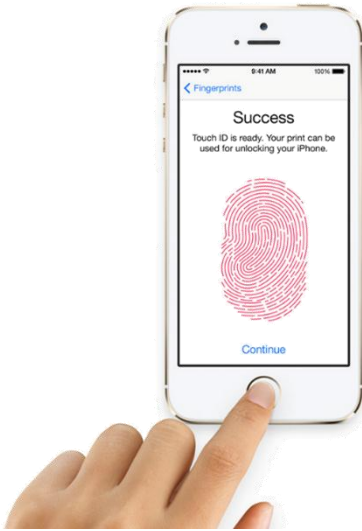
They were one of the first means by which civilizations were able to directly replace human beings with machines as the main source of power.

Windmills would become increasingly widespread throughout Europe during the Middle Ages, and remained in common use well into the 19th Century.

The development of steam power during the industrial revolution would lead to the eventual decline of windmills.

- Zoya Saif (4th Sem ME)

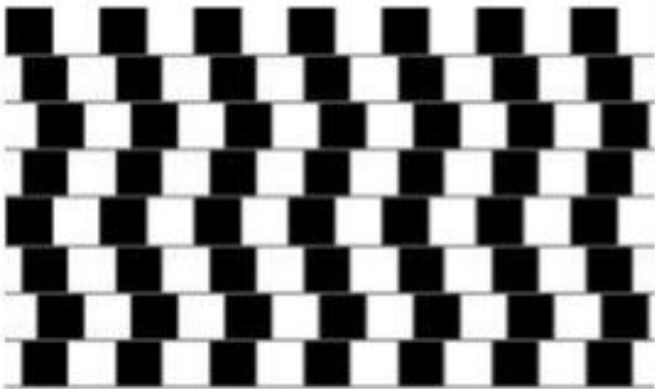
Touch ID-Apple



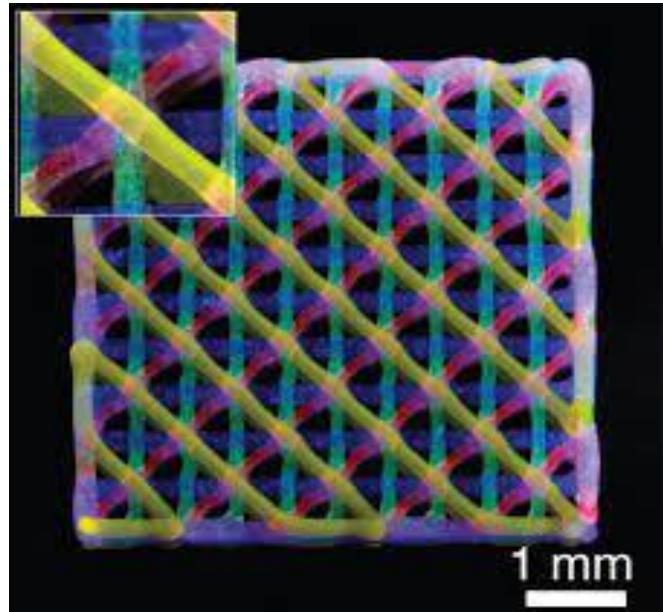
Another technology that has been with us for years but never had its big break in the consumer market, Apple's Touch ID fingerprint sensor on the iPhone 5s lets users unlock the device and pay for iTunes content without entering their password or PIN. Fingerprint scanners have appeared in consumer tech before - Dell laptops featured them years ago - but if there's a company and a product that can make biometric security mainstream, it's Apple and the iPhone. In a year that saw cyber security dragged to the attention of internet users the world over - users who all too often choose '123456' as their password - Apple's assault on alternatives to traditional digital security may have come at just the right time.

- Manjesha G (6th Sem MED)

OPTICAL ILLUSION: Are the horizontal lines straight or crooked?



Micro scale 3-D Printing



3-D Printing inks made from different types of materials, precisely applied, are greatly expanding the kinds of things that can be printed. Despite the excitement that 3-D printing has generated, its capabilities remain rather limited. It can be used to make complex shapes, but most commonly only out of plastics. Even manufacturers using an advanced version of the technology known as additive manufacturing typically have expanded the material palette only to a few types of metal alloys. But what if 3D printers could use a wide assortment of different materials, from living cells to semiconductors, mixing and matching the "inks" with precision.

- Dr. Manjunath Patel G C



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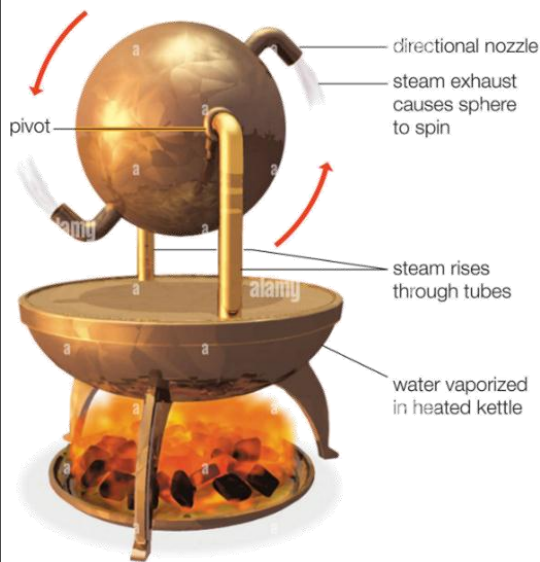
RAIN AND SHINE



Driving through a heavy downpour or snowfall can be agonizing, in part because precipitation can cause light from your headlamps to reflect back at you. To part the curtain of impaired vision, Carnegie Mellon University researchers invented headlamps capable of looking between individual drops or flakes. In sync with a camera tracking the motion of falling particles, multiple LED light sources flash on and off to cut reflection by 70 percent. The flickering is so rapid that the driver perceives a continuous beam of light. At this stage of development, lab systems can vary the illumination 77 times per second, but quicker flashes will be necessary for these headlamps to be effective at highway speeds...

- Manish G J (6th Sem ME)

The Heron's Aeolipile - An early steam reaction turbine



The Aeolipile was the world's first rotating steam engine, or more technically correct, a steam reaction turbine. It was devised by the great Heron of Alexandria in the 1st Century AD and described it in great detail in his book Pneumatica.

This relatively simple device works by heating a reservoir of water within the device to generate steam. The steam is then conducted through one of the copper supports to a pivoted brass sphere.

Once the steam reaches the sphere, it escapes through one of two nozzles at the ends of two, small, oppositely pointing arms. The escaping steam generates thrust and causes the sphere to rotate.

The basic principle is simple, but the device's real genius is that only one of the supporting arms pass steam to the sphere (via a sleeve bearing).

This pushes the sphere against the other, 'solid', supporting arm, which also has a thrust bearing. The solid arm includes a conical point that bears against a matching indentation on the surface of the sphere. This combination holds the sphere in place whilst it rotates.

- Kaif UR Rehman (8th Sem MED)

Every year, thousands of people get hurt or die in traffic accidents, in part because their visibility gets blocked by a lumbering vehicle. This is especially true in Argentina, known for its winding, narrow roads. There, however, Samsung and ad agency Leo Burnett have partnered on a creative solution: a system that relays video footage from the front of a truck to four screens on its back, giving drivers a clear view of what's ahead. During its initial test, the Safety Truck covered some 620 miles (1,000 km) over three days without incident. Now Samsung is refining the technology and working with Argentine officials to roll it out more broadly. "We believe this will change the history of road safety," says Sang Jik Lee, president of Samsung Electronics Argentina.

Safety Truck: Developed by Samsung and Leo Burnett



"No TECH without MECH"

- Prajwal P Pumar (6th Sem ME)

"You will face many defeats in life, but never let yourself be defeated"

- Maya Angelou



DIMENSIONAL DISPLAYS



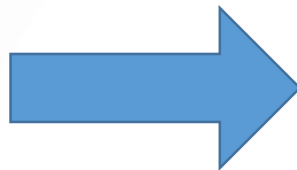
Now that realistic three dimensional images have leapt from the megapixels screen to the living room television, 3D is bound for automobiles. Using thin film transistor technology, Johnson Controls created an experimental 3D instrument cluster that displays critical information in the foreground with secondary data located deeper in the driver's field of view. This technology could add realism to navigation displays and Action movie thrills to emergency lane changes.

- Ranjan S (4th Sem ME)

Oh, The Things You Can Do With SCIENCE!!



SENSOR MIRROR



Women spend more time in-front of mirrors more than men, because looks matter to them, so this Sensor Mirror is just a miracle, it lights up automatically as your face gets close, it uses full natural sunlight which will enable you see your face clearly. I know women are not tech friendly, but this mirror is cordless and it takes a small space in your bathroom or vanity.

- Sumukha Chauhan (6th Sem ME)



First Laboratory Grown Human Muscle

Using human cells that had progressed beyond stem cells, but were not yet muscle, a team at Duke University grew muscle that contracts and responds to stimuli just like native tissue. Though not expected to revolutionize the medical world in terms of growing new tissue for humans, the work done at Duke is still monumental. The ability to grow muscle tissue in a lab could lead to safer drug testing and medical experiments, removing living humans from the equation.

- Megharaj Patil (6th Sem MED)

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ಕಿಮ್ಮನ ಗಾಲ್ಫ್ ರೆಸಾರ್ಟ್ ನ ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕ ಜಯರಾಮ್ ಜಿ.ಕಿಮ್ಮನ ಅಭಿಪ್ರಾಯ ಪ್ರಾಮಾಣಿಕತೆಯಿಂದ ಗುರಿ ಸಾಧನೆ ಸಾಧ್ಯ

ವಿವರಣೆ: ವ್ಯಕ್ತ ಪ್ರಾಮಾಣಿಕತೆಯಿಂದ ಗುರಿ ಸಾಧನೆ ಸಾಧ್ಯವೆಂದು ಕಿಮ್ಮನ ಗಾಲ್ಫ್ ರೆಸಾರ್ಟ್ ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕ ಜಯರಾಮ್ ಜಿ.ಕಿಮ್ಮನ ಹೇಳಿದರು.



ಬಿವರಣೆ: ಪ್ರೇರಣಾ ಸಮೂಹ ಶಿಕ್ಷಣ ಸಂಸ್ಥೆಗಳ ಆವರಣದಲ್ಲಿರುವ ಪ್ರೇರಣಾ ಕೇಂದ್ರ ಮತ್ತು ತಾಂತ್ರಿಕ ಶಿಕ್ಷಣ ಪೂರ್ಣಗೊಳಿಸಿ ಕ್ಯಾಂಪಸ್ ಸೆಲ್ಟ್‌ನಲ್ಲಿ ಆಯ್ಕೆಗೊಂಡ ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕ ಜಯರಾಮ್ ಜಿ.ಕಿಮ್ಮನ ಅವರು ಉದ್ಘಾಟನಾಕಾರದ ಪ್ರವಚನ ನೀಡುತ್ತಿರುವುದು.

ಕ್ಯಾಂಪಸ್ ಆಯ್ಕೆಯ ವಿಶೇಷ

- ಉದ್ಯೋಗಾವಕಾಶ ಗಿಟ್ಟಿಕೊಂಡ ಅಭ್ಯರ್ಥಿಗಳು - 652
- ಪ್ರವೃತ್ತಿ ಉದ್ಯೋಗದಾತರು - ವಿಶ್ವೇಶ್, ಟಿ.ವಿ.ಎಸ್, ಇನ್ಫೋಸಿಸ್, ಕ್ಯಾಂಪೈನಿ, ಟಿ.ವಿ.ಎಸ್, ಕೆಂಟ್ರಿಲ್, ಎಸ್.ಎಸ್.ಡಿ, ಇಟ್ಟಿರಾಮ್, ಬಿ.ಜಯ್, ನೆಕ್ಸ್ಟ್, ಮೆಂಟಲ್, ಟೆಕ್ ಮೂವ್ಮೆಂಟ್, ಗ್ಲೋಬಲ್ ಟೆಕ್ನಾಲಜಿ
- ಇಟ್ಟಿರಾಮ್ ವಿಧ್ಯಾ 10.4 ಲಕ್ಷ
- ವಿಶ್ವೇಶ್, ವಾಷಿಂಗ್ಟನ್ 8 ಪ್ರಾಜೆಕ್ಟ್ ಆಯ್ಕೆ
- ವಾಷಿಂಗ್ಟನ್ 6 ರಿಂ ನಡವಿಸಿ ಪ್ರಾಜೆಕ್ಟ್ ಪಡೆದುಕೊಂಡವರು



ಪಿಇಎಸ್ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ 2ನೇ ಸ್ಥಾನ



ಬಿವರಣೆ: ನಗರದ ಪಿಇಎಸ್ ಇನ್ಸ್ಟಿಟ್ಯೂಟ್ ಆಫ್ ಟೆಕ್ನಾಲಜಿ ಅಂಡ್ ಮ್ಯಾನೇಜ್‌ಮೆಂಟ್ ಕಾಲೇಜಿನಲ್ಲಿ ಆಯ್ಕೆ ಪ್ರಕ್ರಿಯೆಯ ವಿಧ್ಯಾರ್ಥಿಗಳ ಪರಿಷತ್, ಬಿವರಣೆಗೆ ಪಲಯದ ಸಹಭಾಗಿತ್ವದಲ್ಲಿ ವಿಭಾಗೀಯ ಮಟ್ಟದಲ್ಲಿ ಟೆಕ್ನಿಕಲ್ ಫೈನಲ್ ಟೆಕ್ ಅರೋರ - 2022 ಅನ್ನು ಆಯ್ಕೆ ಮಾಡಲಾಗಿದೆ.

ಈ ಫೈನಲ್ ಒಂದು ಭಾಗವಾಗಿ ನಡೆಸಲ್ಪಟ್ಟ ಲೋಕೋಪಯೋಗಿ ಸರ್ಕಾರದ ವಿಭಾಗೀಯ ವಿಧ್ಯಾರ್ಥಿಗಳ ಪರಿಷತ್, ಸಂಜಯ್ ವಿ ಆಟಾರ್ ಮತ್ತು ಆಟಾರ್ ಎರಡನೆಯ ಸ್ಥಾನದವರು ಮೂಲಕ ವಿಜಯತಾರಿಣಿ ಕಾಣಿಸಿದರು. ತಕ್ಕಬಂದ ಈ ವಿಧ್ಯಾರ್ಥಿಗಳನ್ನು ಕಾಲೇಜಿನ ಪ್ರಾಂಶುಪಾಲ ಡಾ. ಚಿತ್ತಣ್ಣ ಕುಮಾರ್ ಎಂ.ಡಿ; ಮೆಕ್ಯಾನಿಕಲ್ ವಿಭಾಗದ ಮುಖ್ಯಸ್ಥ ಡಾ. ಬಸವ ರಾಜಪ್ಪ ಪೈ ಹೆಚ್; ವಿಭಾಗಮಟ್ಟದ ಸಾಂಸ್ಕೃತಿಕ ಕಾರ್ಯಕ್ರಮಗಳ ಸಂಯೋಜಕ ರಮ್ಯಾ ಸಿ ಆರ್ ಹಾಗೂ ಎಲ್ಲಾ ಬೋಧಕ ಬೋಧಕೇತರ ಸಿಬ್ಬಂದಿಗಳು ಮೆಚು ಹೃದಯದಿಂದ ಹುರಿಮೆ ಮಾಡಿದ ಮೂಲಕ ಪ್ರಾರ್ಥಿಸಿದ್ದಾರೆ. ಈ ನಿಟ್ಟಿನಲ್ಲಿ ಇನ್ಫೋಸಿಸ್ ಪ್ರಯತ್ನಗಳು ಫಲಿಸುವ ಮೂಲಕ ವಿದ್ಯಾರ್ಥಿಗಳನ್ನು ತಮ್ಮ ಮುನ್ನೋಟದವರು ಪ್ರಾಯೋಗಿಕ ಮಟ್ಟದಲ್ಲಿ ವೃದ್ಧಿಪಡಿಸುವಂತೆ ಪ್ರೋತ್ಸಾಹಿಸಿದ್ದಾರೆ.

ಶಿಕ್ಷಣವಿಲ್ಲದವರಿಂದ ದೇಶದ ಭವಿಷ್ಯ ಕಷ್ಟಿಸುವ ವಿದ್ಯಾರ್ಥಿಗಳು ಉಜ್ವಲ ಭವಿಷ್ಯ ರೂಪಿಸಿಕೊಳ್ಳುವಲ್ಲಿ ಶಿಕ್ಷಣದ ಪಾತ್ರ ಮಹತ್ವ: ಕಿಮ್ಮನ

ಶಿಕ್ಷಣವಿಲ್ಲದವರಿಂದ ದೇಶದ ಭವಿಷ್ಯ ಕಷ್ಟಿಸುವ ವಿದ್ಯಾರ್ಥಿಗಳು ಉಜ್ವಲ ಭವಿಷ್ಯ ರೂಪಿಸಿಕೊಳ್ಳುವಲ್ಲಿ ಶಿಕ್ಷಣದ ಪಾತ್ರ ಮಹತ್ವ: ಕಿಮ್ಮನ

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Call for Newsletter Articles

We need articles for future additions of Newsletter

Please consider providing a short item of news, or an in depth article for the next edition of the newsletter. We would like to invite everybody to submit a short story/article/announcement that can fit in the following structure:

News items and announcements -

- Short, topical, news oriented technical/ non-technical topics.
- Paintings, sketches, comics, poems, dag-writings, short stories etc.
- Major and minor technical articles are also accepted.
- Jokes, Punch dialogues, quotes of your own could be included.
- All of above said matters could be accepted in English or in kannada formats

Feel free to communicate with the student and staff coordinators for more details.

- Editor

EDITORIAL TEAM



- (L to R)
- Mr. Jayakrishna K (8th Sem)
 - Ms. Vaishnavi H R (4th Sem)
 - Mr. Uzair Khan (8th Sem)
 - Dr. Basavarajappa Y. H. (HOD/ ME)
 - Dr. Ashok R. Banagar (Asst. Prof.)
 - Mr. Shivakumar M. (6th Sem)