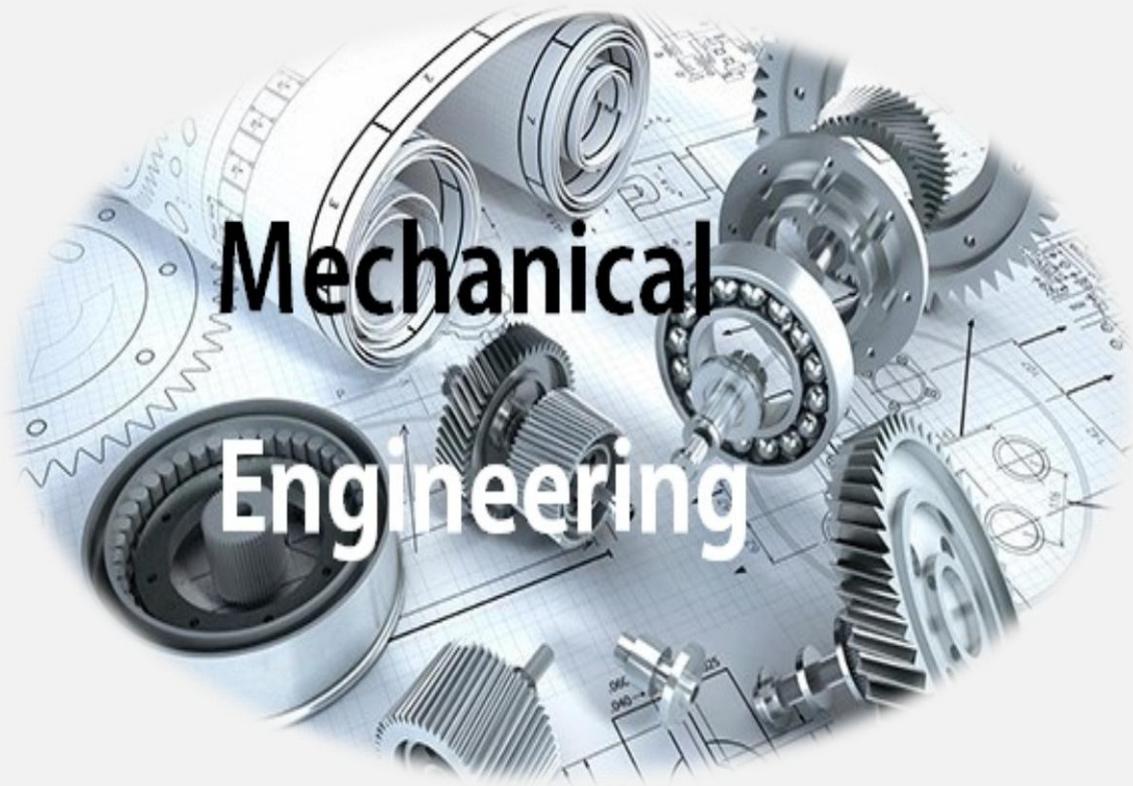


*Department of Mechanical Engineering*

**DEPARTMENT OF MECHANICAL ENGINEERING**

**MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY**

**Kalitheerthalkuppam, Puducherry – 605 107**



*VIBRANT...*

*An Annual Magazine of Mechons...*

**VOLUME 1**

**2014-15**

*Manakula Vinayagar Institute of Technology*

**VISION:**

*“The Mechanical Engineering Department aspires to be acclaimed globally for renowned education and research to accelerate well qualified engineers who are creative, entrepreneurial and flourishing in advanced fields of engineering and research.”.*

**MISSION:**

***Higher Order Thinking:*** *To assure quality education to the students and broaden their profession to make them globally competent Mechanical Engineers.*

***Continuous learning:*** *Nurturing vital state of art, research facility to provide students and faculty with outstanding opportunities to discover, illustrate, implement and disseminate wisdom.*

***Competency:*** *To develop alliance with world class R&D organizations and Educational Institutions in India and overseas for teaching, research and consultancy services.*

***Entrepreneurship:*** *To provide the students with academic environment of excellence, leadership and ethical guidelines needed for lifelong prospective career.*

**ABOUT THE DEPARTMENT**

Undergraduate education (UG) course B.Tech in Mechanical Engineering is a comprehensive degree program. The goal of the Mechanical Engineering curriculum is to create a flexible undergraduate educational experience in Design, Mathematics, Modeling, computation, Quality management, Engineering science & humanities.

The Department of Mechanical Engineering has been continuously striving to make progress in Teaching and Research. The Department was started with an intake (UG) of 60 students in 2012. The Mechanical Department is well equipped with excellent laboratories to make the students to easily understand and study the latest research areas such as computational fluid dynamics, Mechanics of Robot, Aerospace and Defense field, etc and also has separate Department library houses best books in the technical field this vast reservoir of knowledge is a source of constant value addition to the students and faculty members the library's rich in manufacturing, design, metallurgy, drawing and materials science. To enhance the Technical Skills of the students, the Department also organizes various program such Value-added course, Quiz completion, Seminars, Workshops, Industrial visit and Guest lecturers which would make them globally competitive as well as students become an indispensable Engineer and earn the income they deserve.

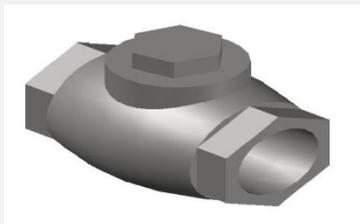
## **GOALS AND STRATEGIES**

- a. *Ensuring the preeminence of learning.*
- b. *Providing high quality programs that meet the evolving needs of our students, community and sector.*
- c. *Ensuring scholarly and creative activity.*
- d. *Making collaboration integral to our core sectors.*
- e. *Creating an environment where all students have the opportunity to succeed.*
- f. *Expanding connections and partnerships with our Sectors.*

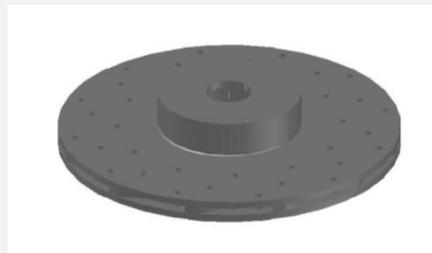
Success is the sum of small efforts repeated day in and day out .In our department we conducted the AutoCAD designing competition on this occasion our friend **Mr. MOHANRAJ .T** from 3<sup>rd</sup> year won the first place and **Mr. VIGNESH .K** from 3<sup>rd</sup> year won second place and they both awarded and appreciated by presenting a pen drive to them and here is the glorifying designs, In this design competition they allow to present a quick and finished design of a isometric objects by this Creativity is allowing our self to make mistakes. Design is knowing which ones to keep. It motivates us to design more and learn more.

Few words from the winner,

*“Hi friends I am Mohanraj .T from 3<sup>rd</sup> B-sec ,well in early periods when I joined my department I have no idea about designing but my faculties support and motivate me to learn to design and my seniors garnish me in designing it was a wonderful occasion were I was awarded with a pen drive and like my seniors I also encourage my juniors and support then in every activities thank you.....”*



**Mr. MOHANRAJ .T**



**Mr. VIGNESH .K**

Appreciation is a wonderful thing. It makes what is excellent in others belong to us as well.

**Article:**

**BLACK HOLES**

The amount of amazing scientific discoveries being made nowadays is incredibly high. Almost every day, humanity discovers something that either confirms or denies the existing understanding of the Universe. However, there still are a number of mysteries that astronomers are on the cusp of solving. Among such mysteries are black holes—being perhaps the most popular and well-known (due to mass culture) space phenomenon—which are one of the least researched.

Generally speaking, a black hole is a space object possessing extreme density; its mass is so enormous, and the respective gravitational attraction is so powerful, that even light cannot escape its trap. This is why they are called 'black holes'—you cannot see them without special devices, since there is no light in the point where a black hole is. The first person to have predicted these phenomena was Albert Einstein, and the term 'black hole' appeared in 1967, introduced by the American astronomer John Wheeler. But, only in 1971 was the first black hole discovered

But how do black holes appear? Science offers us the following explanation: when a large star burns the last of its 'fuel,' it may start collapsing under its own mass, falling in on itself until it shrinks to an object much smaller than the original star, but with the same mass—the stellar black hole

No one knows exactly what is going on inside black holes. A popular science-fiction topic (raised in the recent film 'Interstellar,' for example) refers to what happens if somebody falls into a black hole. Some believe black holes to be the predicted wormholes to other parts of the Universe. Others make less fantastic suggestions. Either

way, what is truly amazing about black holes is how they distort time and space. If a person 'falls' into a black hole, for an outsider, the movement of this person will be slowing down, unless it finally freezes (universetoday.com). Moreover, according to Stephen Hawking, the incredible gravity of a black hole will be endlessly stretching this person in length. However, for the person 'falling' into a black hole, time will seem to pass as usual—and, respectively, this person will not notice any special distortions either.

Another popular question is, "What happens if a black hole gets too close to Earth?" Black holes do not move around space. Nothing bad will happen to Earth, because no black hole is close enough to the solar system to consume our planet. However, if theoretically a black hole, possessing the same mass as the sun, took its place, nothing would happen anyways. The same mass means the same gravity, so the planets of the Solar System would keep orbiting the black hole as if nothing had happened (nasa.gov).

Black holes are quite the space phenomenon, with its properties being mysterious. Although predicted and described a century ago, they still possess one of the biggest conundrums for scientists. Originating from collapsed stars, black holes possess such an enormous gravity that they are able to distort time and space. However, as scientists claim, Earth is not in danger—yet.

This is the article by AMAL REJEE III<sup>rd</sup> year Mechanical, with his interest on Aero physics and its concepts, he wrote this article on his own and shared among students community.

## **Drawing Competition**

*Drawing is the honesty of heart*

*DRAWING has always been a curious thing for us humans. We expressed our feelings and our thoughts in the form of drawings. "Everyone do have a passion for something in their life that motivates or inspires in some way."*

In our case "DRAWINGS"

We have conducted a drawing competition in our department of mechanical engineering the winners of the competition are,

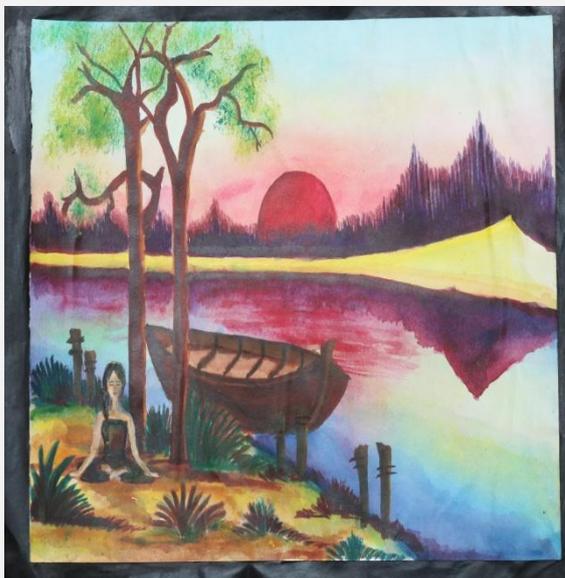
**Mr. S. Nirmal** – 1<sup>st</sup> prize

**Mr. J.Dhamodaran**– 2<sup>nd</sup> place

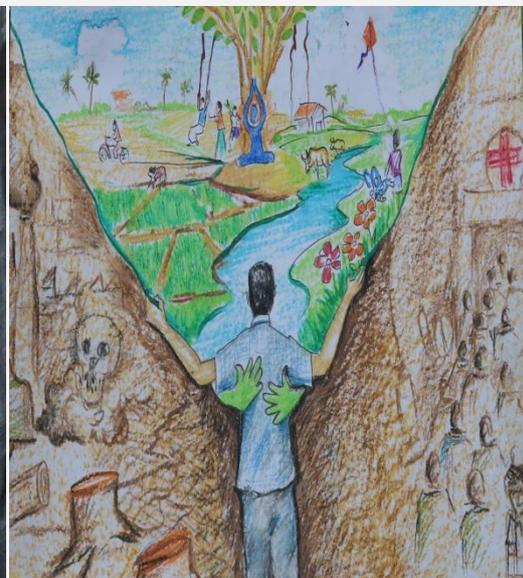
*They responded to the competition's themes of "NATURE" by creating something that reflects the life of a community under construction, in all senses.*

### **A FEW WORDS FROM THE WINNERS**

*"Hi guys we are S. Nirmal and G. Narendrakumar from the mechanical department we are also one of them and passionate about drawing and paintings that sometimes we don't even know what we were drawing but we draw. We were very fond of drawing classes in our school days. Those were the days when we used to draw some stuff on the last page of our notebooks while the teacher was teaching some other subject. For us, Drawing and Painting is something that we can't live without."*



**S. NIRMAL**



**J. DHAMODARAN**

### ABOUT VIBRANT

VIBRANT IS A YEARLY MAGAZINE COMPILED AND PUBLISHED AMONG STUDENTS BY THE STUDENTS COMMUNITY IN MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY FROM THE DEPARTMENT OF MECHANICAL ENGINEERING. STUDENTS FROM ALL THE YEARS CAN INDULGE IN INNOVATIVE AND INTERESTED TOPIC RELATED EITHER ENGINEERING RELATED TRENDS OR IN NON TECHNICAL RELATED TOPICS.

STUDENTS CAN EXPRESS THEIR OWN CONFESSION OR ANY OTHER IDEAS THEY CAN GIVE FOR THE DEVELOPMENT OF MECHANICAL ENGINEERING DEPARTMENT AND THE INSTITUTION.

STUDENTS EXTRACURRICULAR AND ALL OTHER STUFFS THAT THEY WERE REALLY INTERESTED AND WANT TO DEVELOP CAN INDULGE IN THIS MAGAZINE AND SHOW CASE THEIR TALENT.

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