



**SSIPMT**  
RAIPUR



**SHRI SHANKARACHARYA INSTITUTE  
OF PROFESSIONAL MANAGEMENT &  
TECHNOLOGY, RAIPUR (C.G.)**



**NEWSLETTER VOL. 11/JULY-DEC 2022**

# **MECHANICAL EXPRESS**

# Newsletter Committee



**MENTOR**  
Mr Manish RK Sahu  
Asst. Prof.



**EDITOR-IN-CHIEF**  
Ananya Shukla  
5th sem



**CO-EDITOR**  
Ankur Sharma  
5th sem



**GRAPHIC DESIGNER**  
Gitarth Doshi  
5th sem



**TYPIST**  
Akshat Tripathi  
5th sem

## From the Editor-In-Chief's Desk :

Welcome readers!

We are very happy to introduce the bi-yearly departmental newsletter: **MECHANICAL EXPRESS**. As we all know, a newsletter mirrors its department- its vision and mission. It also highlights the event, activities, academic progress and achievements of its students as well as the contribution of teachers towards the departments growth. In this edition, we have tried to capture the last semester worth of activities, starting from the January 2022, and upto June 2022. I do hope that the newsletter encourages many more including students to use it as a platform to express their creativity and that it proves to be a source for everyone to not only catch up the ongoings of the department but also as an oasis to satiate their curiosity about the field of mechanical engineering.

Ananya Shukla  
4th sem

## **Need of Passive HVAC Technique**



**Mr. Hitesh Kumar Sahu**  
**Asst. Prof.**

**Since time immemorial, human race has two basic tendencies. Firstly, human beings prefer to build a place where they can live or work. And, secondly, human beings desire for a comfortable living and/or working conditions. Hence, buildings & indoor comfort conditions have been priority concerns for mankind since forever. This has led to development of Ventilation & Air-Conditioning techniques. However, with consistently increasing population, the demand for land, buildings & electricity has increased at a drastic rate. This has resulted in activities that have adversely affected the environment. The rapid rate of depletion of the conventional energy sources, the increasing deforestation due to mining, human habitation & farming activities, the growth in pollution and harmful emissions into the atmosphere and consequent adversaries in form of global warming & energy crisis have incepted a posed threat to the survival of the mankind in future world. The engineers today are facing the challenge of not only providing the comfortable working and living conditions to the society, but also to take care of the conservation of environment. This pursuit of engineers has resulted in identification and development of a cluster of technologies which are not only in favor of conservation of environment but also ensure usage of non-conventional energy sources in an efficient manner.**

**These techniques are collectively known as Passive Techniques. In a typical tropical, hot & dry climate like that of central India, the essence of application of Passive Techniques lies in Building Cooling. Hence, in this sense, the Ground water heat exchanger type of passive cooling technique is applied to cooling the space.**

# MECHANICAL ENGINEERING ASSOCIATION

## OFFICE BEARERS 2022-2023



**E.SHARATH KUMAR**  
(PRESIDENT)



**PRAVEEN GUPTA**  
(VICE PRESIDENT)



**KUNAL DEWANGAN**  
(CORE TEAM HEAD)



**Manish Mandal**  
TREASURER



**Sheikh Mobin**  
CULTURAL INCHARGE



**Minakshi Sahu**



**Aishwarya Yadu**  
DISCIPLINE INCHARGE



**Hemlata Pal**



**Harsh Sukhdeve**  
LITERARY INCHARGE



**Ananya Shukla**



**Sachin Verma**



**Ankur Sharma**  
AUDIO/VISUAL INCHARGE



**Gitarth Doshi**



**Shikhar Jaiswal**



**Akshat Tripathi**



**Tushar Chouhan**



**Gaurav Mishra**



**Yamini Sahu**

## Mentor's Wisdom:

### Mechanical Engineering Association

( Estd. 2008 )

*"The mind is not vessel to be filled but a fire to be ignited."*

Mechanical Engineering Association (MEA) is an organization belong to department of mechanical engg. Formed by the students which firmly believes that every individual is blessed with certain qualities and MEA endeavors to best out of an individual. The basic aim of MEA is to enrich the students with different qualities to add dimensions to their personality so that every students emerges as a multi-functional engineer who is globally recognized. MEA strongly believes on developing competence to one's personality.



**Mr Manish RK Sahu**  
Asst. Prof.

# OPEN MIC ( HINDI DIWAS CELEBRATION )

Date of Event : 15th September, 2022



# ENGINEER'S DAY

Date of Event : 15th September, 2022



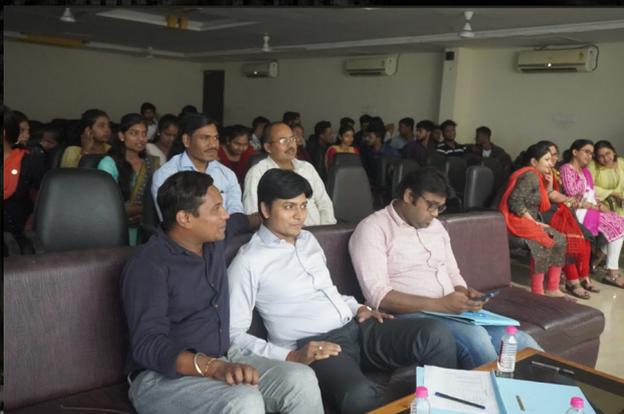
# MEA OATH TAKING

Date of Event : 29th September, 2022



# NAADSWARAM

Date of Event : 19th October, 2022



# INDUCTION PROGRAM

Date of Event : 3rd November, 2022



# SGT 6.0 AUDITIONS

Date of Event : 21th & 22nd November, 2022



# SGT 6.0 FINAL

Date of Event : 26th November, 2022



# DROPS OF HOPE ( BLOOD DONATION )

Date of Event : 26th November, 2022



# CIPET VISIT

Date of Event : 9th Dec, 2022



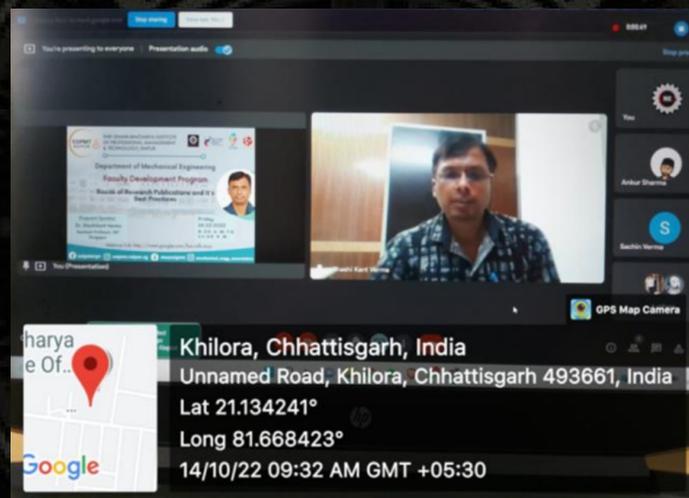
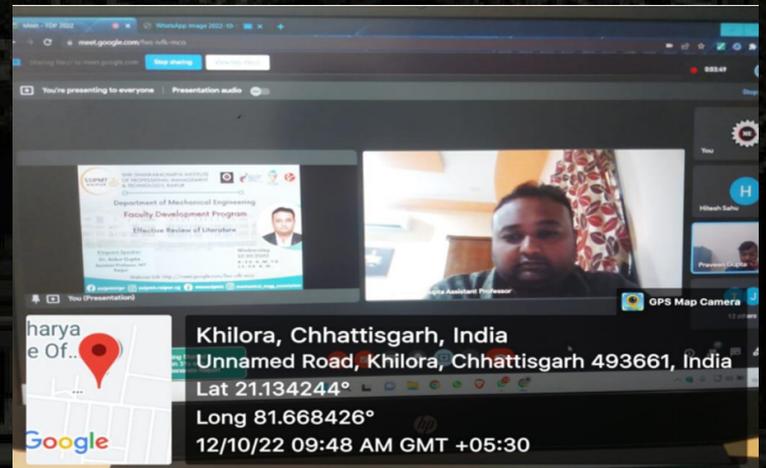
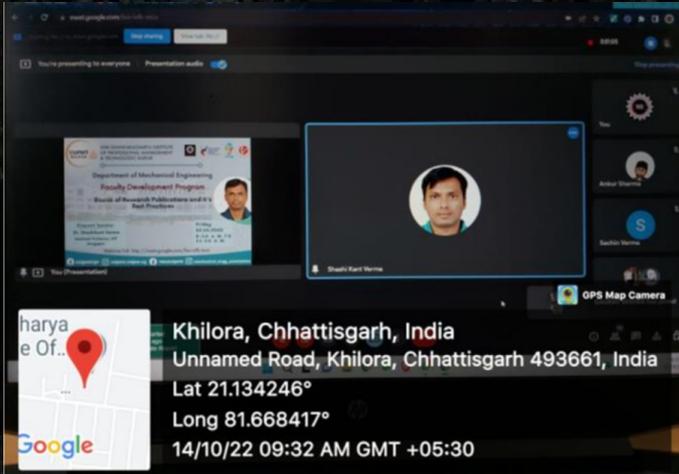
# POSTER MAKING COMPETITION

Date Of Event : 15th Dec, 2022



# FDP

Date Of Event : 15th October, 2022



# Black Holes



**Ananya Shukla**  
5th sem

People usually misinterpret the term black hole for a region in space that is completely vacant, when in reality a black hole is anything but that. To put it simply a black hole is made when a massive amount of matter is concentrated within a relatively tiny area. This then creates a gravitational pull so strong that not even a speck of light can escape.

Black holes were predicted by Einstein's theory of general relativity. When a star dies, it leaves behind a small core densely packed with the remnant matter. It showed that when the mass of the core is more than three times that of the Sun, then the force of gravity overwhelms all other forces and produces a black hole.

## STEPHEN HAWKING'S AREA THEOREM:

Hawking derived this theorem from Einstein's theory of general relativity in 1971. The theorem states that it is impossible for the surface area of a black hole to decrease over time. This theorem is also closely related to the second law of thermodynamics (which states that the change in entropy in an isolated system will be greater than or equal to 0 for a spontaneous process) since the entropy of a black hole is directly proportional to its surface area and therefore both must always increase.

According to the new study, the researchers' confirmation of the area law seems to imply that the properties of black holes are significant clues to the hidden laws that govern the universe. Oddly, the area law seems to contradict another of the famous physicist's proven theorems: that black holes should evaporate over extremely long time scale, so figuring out the source of the contradiction between the two theories could reveal new physics.

# Attitude is Everything



**Krishna Patahk**  
4th sem

Attitude is a settled way of thinking or feeling about something. Think of it as the mental filter through which you experience the world. Some people see the world through the filter of optimism while others through the filter of pessimism. You can't expect positive results when you spend 10 secs a day thinking positively and remaining 16 waking hours dwelling on negative thoughts. For thinking and acting positively, you should focus on 3 fundamental things:

- 1) It begins in the head with the "thoughts". You can achieve your goal when you believe in yourself and keep your thoughts focused on the positive.
  - 2) The second thing for success is "Your words". You should build your personality. How you speak, what you speak, the kind of words you use makes up your personality and frame in the mind of the listener so always speak thoughtfully.
  - 3) The third thing for success is "You should act purposefully" because your actions speak louder than your words and your thoughts.
- By following this, you will not only be more positive but it will also increase your association with nourishing people, you'll feel better about yourself and have renewed energy to achieve your goals. It will make you an upbeat person- the kind of person others love to be around.



@MEASSIPMT



@mechanical\_engg\_association



@MEA SSIPMT



[mea-ssipmt.wixsite.com/2008](http://mea-ssipmt.wixsite.com/2008)



[M.E.A@ssipmt.com](mailto:M.E.A@ssipmt.com)