

INSIGHTS

Department Of Computer Engineering

Investing Today...
Redefining Tomorrow!!

July -Dec 2020

ATHARVA
College Of Engineering

Atharva Educational Complex , Malad Marve Road, Charkop Naka,
Malad (W), Mumbai - 400095, India



ACKNOWLEDGEMENT

We express our heartfelt gratitude to honorable Shri. Sunil Rane Sir who has always been a source of motivation to any kinds of resourceful endeavors by the faculty members and students. A real visionary, his exemplary leadership and astute foresight has driven the faculty members and students to challenge their potential holistically contributing towards the nurturing of the great vision of Atharva College of Engineering.



SHRI. SUNIL RANE SIR
Executive - President
Atharva Group of Institutes &
Founder Secretary - AET

ACKNOWLEDGEMENT

We thank our Director Dr. P.N. Nemade for his unwavering support and unceasing encouragement. We are indebted for his unstinting assistance in making it possible for us to publish the magazine.

We also would like to thank our Principal Dr. S.P.Kallurkar, our mentor, without whom the endeavor would not have been possible. His unflinching support in any constructive venture, continuous guidance, meticulous scrutiny and thoughtful feedback has always been a motivation to us.



DR. P.N.NEMADE
Director

Atharva College of Engineering



Dr. S.P.Kallurkar
Principal

Atharva College of Engineering

FROM THE EDITORIAL BOARD

We are delighted to bring you the issue of Insights - the e- magazine of Computer Engineering department. The overwhelming responses and positive feedback that we received for the inaugural issue of Insights has given us the drive and motivation to take it forward for the benefit of all the readers. As in the first issue, Insights will serve to augment awareness among the readers on latest technological developments and foster improved interaction and integration among faculty members and students. It will also serve as a platform to chronicle various activities of the department. In this issue, besides the sections in the first issue we have added Alumni Corner also wherein the passed out students of the Computer Engineering Department will be given a chance to share their views after leaving this college.



Prof. Ranjita Asati



Prof. Varsha Salunkhe



Prof. Jignesh Patel

We take this opportunity to thank all the generous contributors for this issue of Insights. We welcome your valuable suggestions about this e- magazine and continue to look forward to your co-operation and support to further improvise and make it a continued success. We would like to appreciate the efforts taken by Dr. Suvarna Pansambal who has been a constant back end contributor for this magazine. Our heartfelt thanks to her for being there to help us out in smooth publishing of the Magazine.

MESSAGE FROM HOD

Greetings from Computer Engineering Department!!! Computer Engineering is a versatile and evergreen branch of engineering with current trends in various fields like IOT (Internet of things), artificial intelligence, robotics, machine learning, virtual reality, cognitive technology, cloud computing, intelligent apps. blockchain etc. Department of Computer Engineering at Atharva College of Engineering has achieved 100% result for final year students last year. The Department started in the year 1999 and currently has a vibrant student body numbering around 500 and faculty numbering nearly 18. It seeks to combine excellence in education with service to the industry.

Department has well qualified and dedicated faculty with well-developed laboratories. We impart quality engineering education through sound theoretical knowledge, hands on laboratory as well as computational skill and exposure to recent technologies by visiting industries & expert talk. The well-equipped labs include a state-of-the-art iMac lab, virtual software, virtual labs, NPTEL lectures provided by the college which gives platform and tremendous opportunity for the students to keep themselves updated with latest technologies. 'Insights' the e-magazine is one among the many endeavour's taken by the Department to mold the students in all fronts and make them industry-ready. It has commendable initiatives for the student growth which includes, training and placement activities right from the second year, spoken tutorials project by IIT-B, conducting technical events under professional bodies such as the CSI Chapter, IEEE and many more. The college is geared up for International conference, the faculty members and students strived relentlessly in coordinating the activities and publishing papers of high technical value.

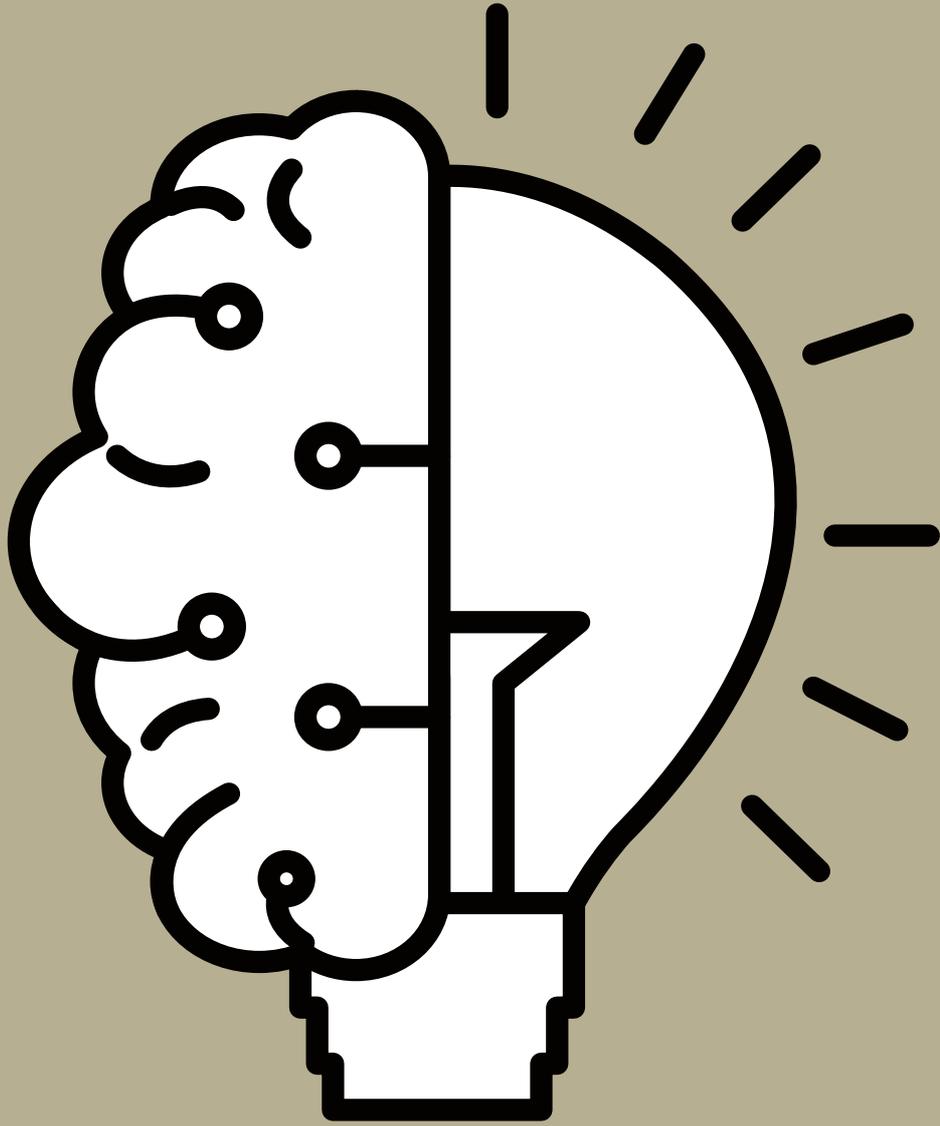
To instill academics in Computer Engineering, department provides conducive and disciplined environment for lifelong learning. Students are nurtured to build the right attitude, extend and investigate software systems in all domains.

We provide conducive and disciplined environment for lifelong learning. Students with the help of faculties are constantly striving to excel to show high level of professional competence & make incredible mark nationally & internationally.

Several of our alumni hold important positions in the industry and academia worldwide. Students have been recently placed, both in India and abroad, in several leading national and international companies. All these achievements of the department would not have been possible without the enthusiastic and dedicated work of our past and present faculty members. I wish good luck to all students, faculty and look forward for your kind patronage.



DR. Suvarna Pansambal
HOD, CMPN Dept.
Atharva College of Engineering



CREATIVE
CORNER

UNRAVELING THE MYSTERY OF BLACK HOLES: RECENT DISCOVERIES AND THEORETICAL IMPLICATIONS

Black holes, enigmatic cosmic entities that challenge our understanding of the universe, have fascinated astronomers and physicists for decades. With their immense gravitational pull and ability to trap even light, black holes have remained a subject of intense research and speculation. In this blog, we will explore recent discoveries and theoretical implications surrounding black holes, shedding light on these mysterious celestial phenomena.

Stellar black holes are formed when massive stars exhaust their nuclear fuel and undergo a supernova explosion, collapsing under their own gravity. Recent advances in observational astronomy have enabled scientists to detect and study these stellar black holes more effectively. As a result, we have gained a deeper understanding of the life cycles of stars and the role they play in the formation of black holes.

At the centers of most galaxies, including our own Milky Way, lie supermassive black holes. These behemoths are millions to billions of times more massive than our sun. Recent studies have revealed fascinating connections between supermassive black holes and their host galaxies. Their gravitational influence on nearby stars and gas clouds affects galactic evolution, shaping the distribution of stars and regulating star formation. The groundbreaking discovery of gravitational waves in 2015 by the LIGO collaboration opened a new era of observational astronomy.

Black hole mergers and collisions produce ripples in the fabric of space-time, and detecting these waves has allowed scientists to directly observe and study black hole interactions, providing valuable insights into their properties and behavior.

One of the most perplexing challenges in black hole physics is the black hole information paradox. This paradox arises from the apparent conflict between general relativity and quantum mechanics. According to quantum theory, information cannot be destroyed, yet the classical description of black holes suggests that information can be lost when an object falls beyond the event horizon. Recent theoretical advances have attempted to reconcile these two theories, but the paradox remains unsolved, presenting a fascinating area of ongoing research.

Black holes also have intriguing connections with the concept of time travel. The theoretical existence of wormholes, hypothetical tunnels in spacetime that could connect distant points in the universe, has been linked to black holes. While speculative, these ideas captivate the imaginations of scientists and science fiction enthusiasts alike, pushing the boundaries of our understanding of the cosmos.

The study of black holes continues to be at the forefront of modern astrophysics, offering captivating discoveries and profound theoretical implications. Recent advancements in observational and theoretical techniques have deepened our understanding of black holes, shedding light on their formation, behavior, and interactions with the cosmos. As we journey further into the cosmos, the mysteries of black holes are sure to unveil even more extraordinary insights, reshaping our understanding of the universe and challenging our current theories of physics.

Prof. Varsha Salunkhe



THE IMPACT OF SOCIAL MEDIA ON RELATIONSHIPS AND COMMUNICATION

In the digital era, social media has become an integral part of our lives, transforming the way we interact and communicate with one another. While it has undoubtedly brought us closer in some ways, it has also posed new challenges for relationships and communication. In this blog, we will explore the profound impact of social media on our connections with others, both positive and negative, and discuss ways to foster healthy relationships in the midst of the ever-evolving digital landscape.

Social media has made it easier than ever to stay connected with friends, family, and acquaintances, regardless of distance. Platforms like Facebook, Instagram, and Twitter enable us to share our experiences and stay informed about each other's lives. However, this constant connectivity can also lead to a paradoxical feeling of disconnection, as online interactions may lack the depth and intimacy of face-to-face communication.

While social media provides instant communication, it can also create misunderstandings and misinterpretations. Text-based conversations may lack nonverbal cues, leading to ambiguous messages and potential conflicts. Additionally, the ease of online communication might deter individuals from addressing complex or sensitive topics in person, resulting in a breakdown of authentic and open communication.

Social media encourages users to present curated versions of their lives, often showcasing only the highlights and positive aspects. This filtered reality can create unrealistic expectations and feelings of inadequacy in others, leading to comparison and self-esteem issues. It is crucial to recognize that social media profiles are only a glimpse into someone's life and not a comprehensive reflection of their reality.

The blurring of personal and public spaces on social media can raise privacy concerns and challenges in maintaining boundaries. Oversharing personal information or relationship issues online can lead to unintended consequences and jeopardize the privacy of individuals involved.

As we navigate the digital age, it is essential to strike a balance in our use of social media to maintain healthy relationships and effective communication. Being aware of the potential pitfalls, such as comparison and online validation seeking, can help us approach social media with a critical eye and foster genuine connections with others. Establishing clear boundaries regarding privacy and what to share online can protect our relationships from unnecessary strain.

Ultimately, social media can be a powerful tool for staying connected and enriching our relationships, but we must remember that the most meaningful connections are often nurtured through face-to-face interactions and genuine, open communication. As we embrace the digital landscape, let us do so mindfully, leveraging social media as a supplement to our real-world relationships rather than a substitute for them. By being conscious of our actions and choices, we can harness the positive potential of social media while preserving the authenticity and depth of our relationships.

Prajwal Bhagwat



THE BENEFITS OF REGULAR EXERCISE FOR COLLEGE STUDENTS

College life is an exhilarating and transformative journey filled with new experiences and challenges. Amidst the excitement and academic demands, college students often find it challenging to prioritize their health and well-being. However, incorporating regular exercise into one's college routine offers a myriad of benefits that can positively impact both physical and mental health. In this blog, we will explore the numerous advantages of staying physically active and why regular exercise is a valuable investment for college students.

College life can be stressful, with academic pressures, social dynamics, and future uncertainties taking a toll on mental health. Regular exercise has been shown to release endorphins, the "feel-good" hormones that combat stress and anxiety. Engaging in physical activity acts as a natural stress reliever, promoting a more positive outlook and improved mental well-being.

Exercise is not just beneficial for the body; it also enhances brain function. Physical activity increases blood flow to the brain, delivering oxygen and nutrients that stimulate cognitive abilities. Regular exercise has been linked to improved focus, memory retention, and overall cognitive performance, which can significantly aid college students in their academic pursuits.

The college lifestyle often disrupts sleep patterns due to irregular schedules and late-night study sessions. Regular exercise can help regulate sleep-wake cycles, promoting better sleep quality. Students who engage in physical activity tend to fall asleep faster and enjoy deeper, more restful sleep, allowing them to wake up feeling refreshed and ready to tackle the day.

Feeling drained and fatigued is a common experience for college students juggling multiple responsibilities. Surprisingly, incorporating exercise into a daily routine can increase energy levels and combat fatigue. Regular physical activity improves cardiovascular health, strengthens muscles, and boosts endurance, providing a natural energy boost that enhances overall productivity.

Engaging in group exercises or joining sports teams provides an excellent opportunity for college students to build strong social connections. Exercising with peers fosters a sense of camaraderie and encourages teamwork, helping students form lasting friendships and support networks.

College schedules can be demanding, leaving little time for relaxation and leisure activities. Incorporating exercise into daily routines creates designated "stress-free" breaks, allowing students to recharge both physically and mentally. Moreover, engaging in regular exercise requires time management skills, helping students develop a balanced approach to their academic and personal lives.

Regular exercise is not just about staying physically fit; it is a holistic investment in overall well-being for college students. From stress reduction and mental clarity to improved sleep quality and increased energy levels, the benefits of regular exercise are vast and impactful. By prioritizing physical activity in their daily routines, college students can foster a healthier and more balanced lifestyle, enabling them to navigate the challenges of college life with greater resilience and success.

Ankita Mane



CHASING SHADOWS: REFLECTING ON ILLUSIONS AND REALITY

In the chase for shadows, elusive and fleet,
We wander through realms of illusions we meet,
A dance of light and darkness entwined,
As we seek truth and clarity of mind.

With outstretched hands, we reach for the haze,
Where dreams and realities blend in a maze,
Yet, as we pursue these illusory flight,
We grasp at whispers that vanish from sight.

In the twilight's embrace, we pause to reflect,
On the shifting forms that we try to detect,
For shadows can deceive and truths can lie,
In the dance of perceptions, we question why.

But amidst the pursuit of elusive guise,
We learn to discern where reality lies,
In the depths of self-awareness we find,
The power to illuminate shadows entwined.

Beyond the veils of illusion's domain,
The essence of truth begins to reign,
In moments of clarity, we start to see,
The beauty of both the real and the dream.

So, let us not fear the dance of disguise,
Embrace the shadows that make us wise,
For within the interplay of dark and light,
We uncover the depths of our soul's insight.

In chasing shadows, we journey through,
The tapestry of life, both old and new,
Reflecting on illusions, we come to know,
The balance between shadows and the glow.



Nimit Jogani

THE LANGUAGE OF DREAMS: UNRAVELING THE SUBCONSCIOUS MIND

In the language of dreams, the subconscious speaks,
A realm of symbols, where reality tweaks,
Through mystic corridors of slumber's domain,
We unravel the secrets that dreams contain.

In midnight's embrace, the mind takes flight,
Beyond the borders of reason and sight,
In dreams, a canvas where thoughts are spun,
An enigmatic tapestry, just begun.

Whispers of desires and fears interlace,
As we explore the depths of inner space,
The subconscious weaves its intricate tale,
In symbols and metaphors, it sets sail.
Visions may drift like a gentle breeze,
Or thunder with power that shakes and seizes,
Yet, beneath the surface, the message lies,
To decode the language, a soul must rise.

In the language of dreams, truths reside,
Veiled in riddles that seek to confide,
The essence of who we truly are,
Unfolding beneath the moon and stars.

The journey within brings clarity,
To decipher the messages that we see,
Unlocking doors to the heart's abyss,
Where emotions flow and memories reminisce.

Oh, the language of dreams, profound and vast,
A mirror to the soul, holding memories amassed,
With each passing night, the subconscious implores,
To explore the depths of our inner shores.

Aniket Padilkar

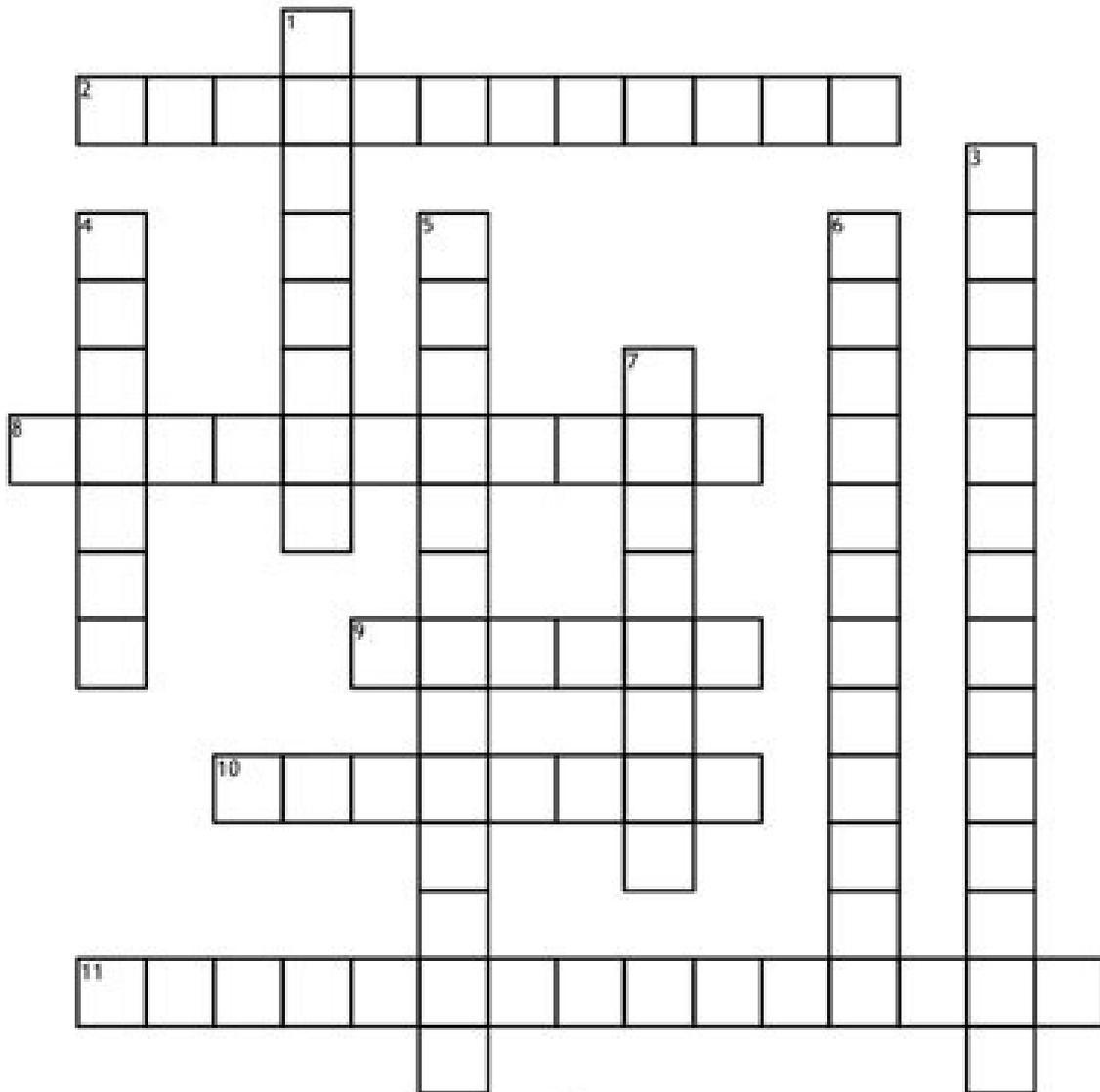


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CROSS WORD

Water terms



Across

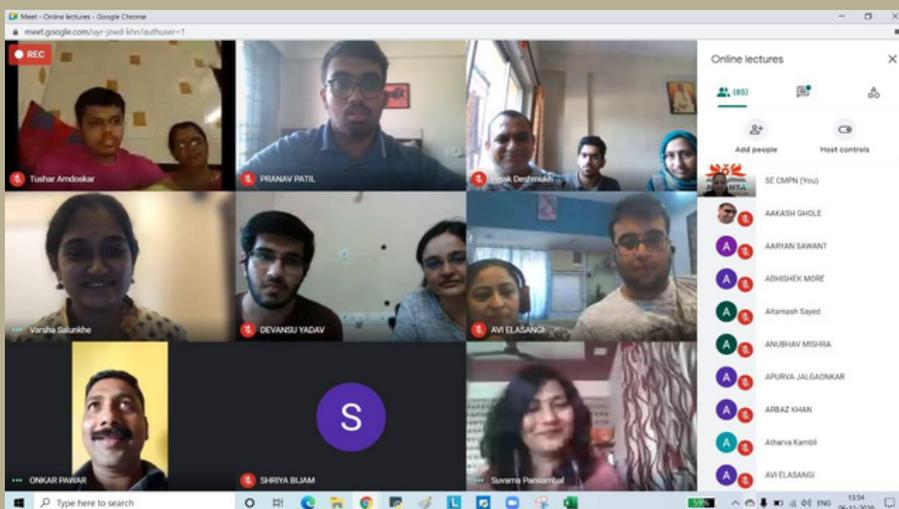
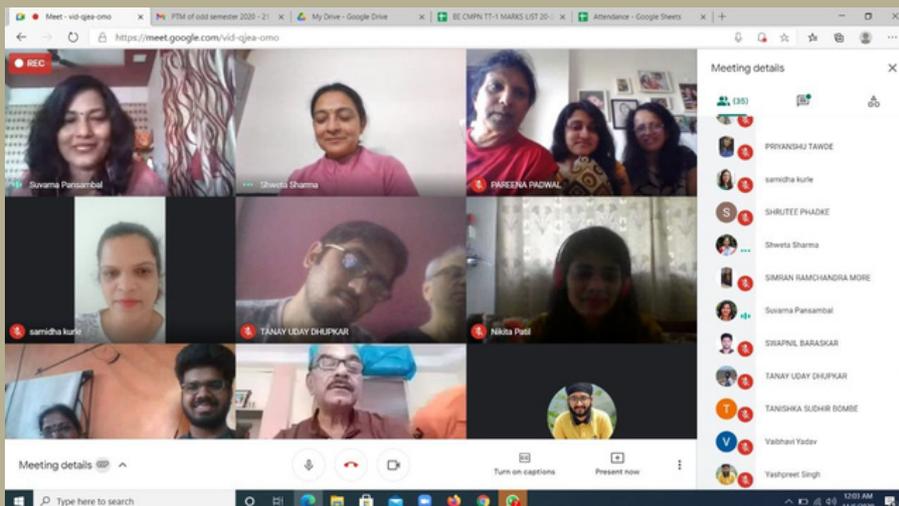
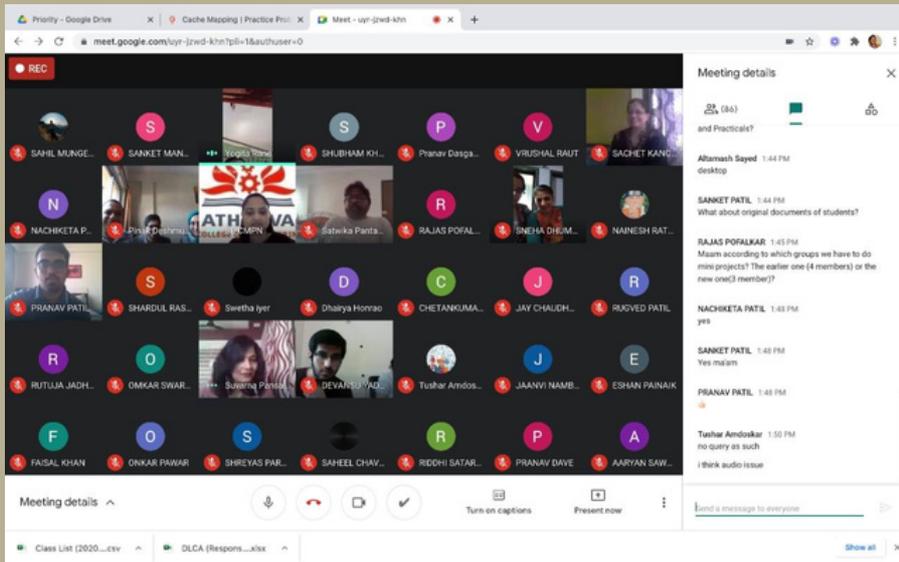
2. water vapor (gas) cools down and changes back into liquid
8. process of liquid molecules absorb heat & change into gas
9. substance that gets dissolved by the solvent in a solution; it is the smallest amount
10. the force that combines the same type of polar molecules together
11. attraction of water molecules with molecules of surrounding objects/materials

Down

1. force that combines different polar molecules together (water 'sticks' to sides of cup)
3. the tightness across the surface of water that is caused by polar molecules attracting to one another
4. substance that dissolves another substance in a solution; it is the largest amount
5. molecule that has electrically charged ends
6. amount of heat needed to increase the temperature of a substance by 1 degree Celsius
7. mixture in which one substance dissolves into another

ONLINE PTM

Department of Computer Engineering of ACE organised an online PTM to brief parents on academic progress of their ward via Google meet. Here's a glimpse of the meet





Department of Computer Engineering conducted 2 days hands-on webinar for students on frontend development. The workshop incorporated from teaching the basics of web technologies to making a project and hosting it on Github.

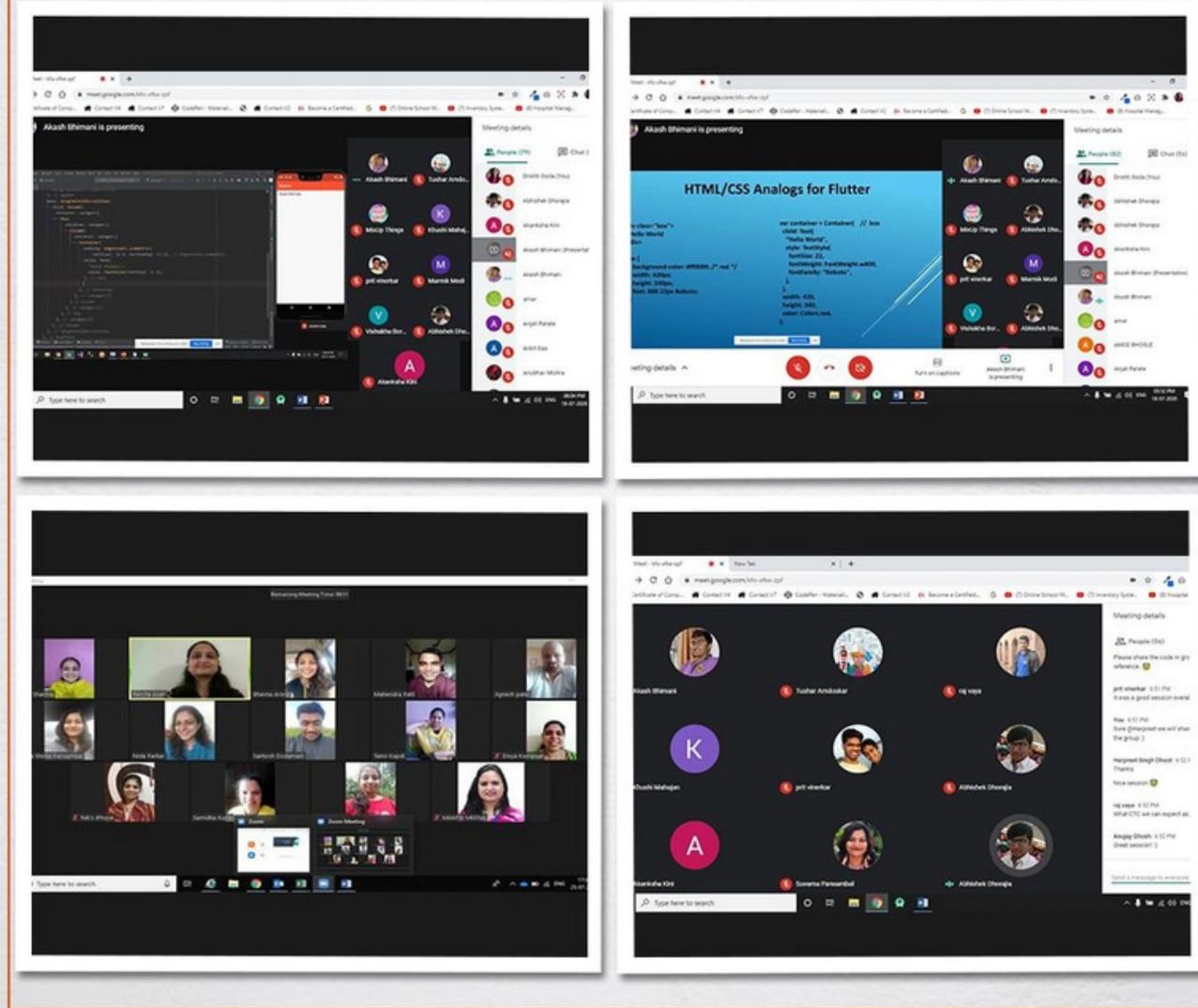
The topics covered were:

1. HTML
2. CSS
3. JavaScript basics
4. Javascript Libraries
5. Github Hosting
6. A project based on all the topics above

Date- 2nd and 3rd October

Time:11.00am to 1.00pm

Resource person: Rohit Phatarpek



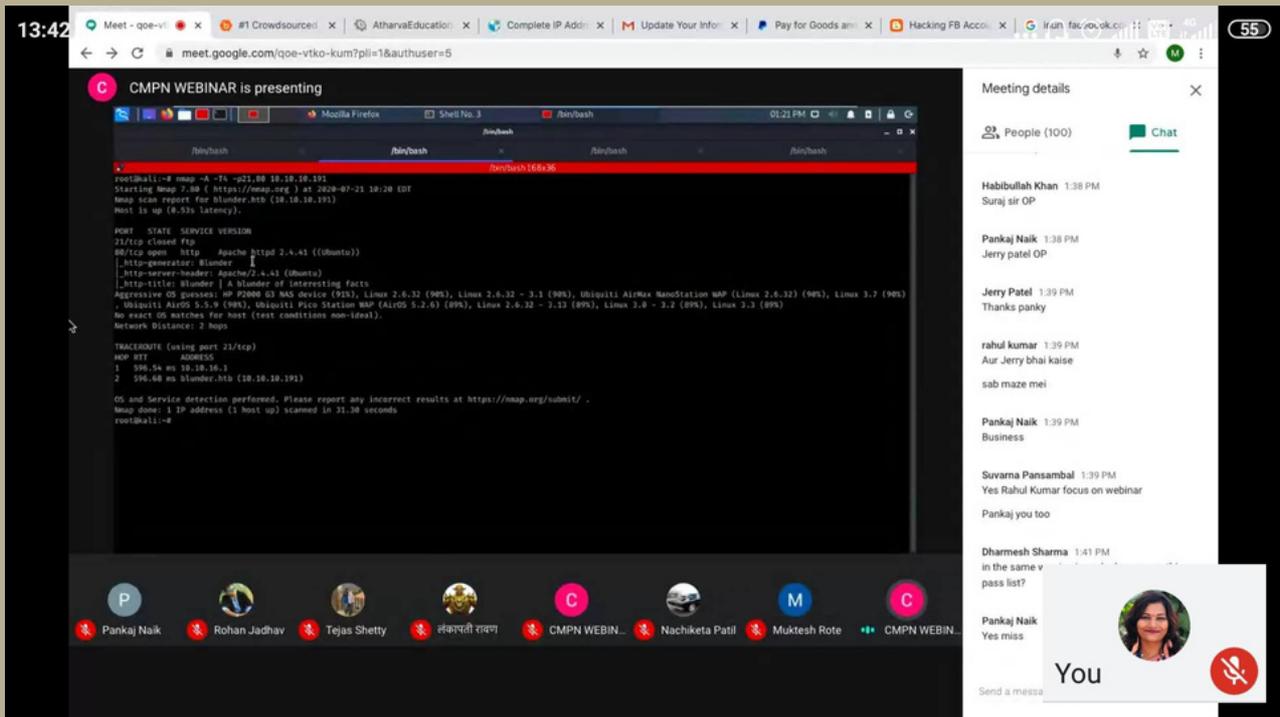
Department of Computer Engineering
Department, Atharva College of Engineering,
successfully conducted an online webinar on
"Flutter", on 18-07-2020 at 5 PM - 7 PM

Speakers:

Akash Bhimani - Infosoft Systems

Drishti Goda -HeyHub

Abhishek Dhorajia - HeyHub



Department of Computer Engineering of Atharva College of Engineering successfully completed 3 days webinar on CYBER SECURITY AND ETHICAL HACKING.

DETAILS:

Date: 20th to 22nd July 2020

Time: 12.00 pm to 02.00 pm

Speakers:

- 1) Mr. Peeyush Kumar
- 2) Mr. Suraj Pawar
- 3) Mr. Sandeep Suhag

