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Volume 2 Issue 4

July 2023

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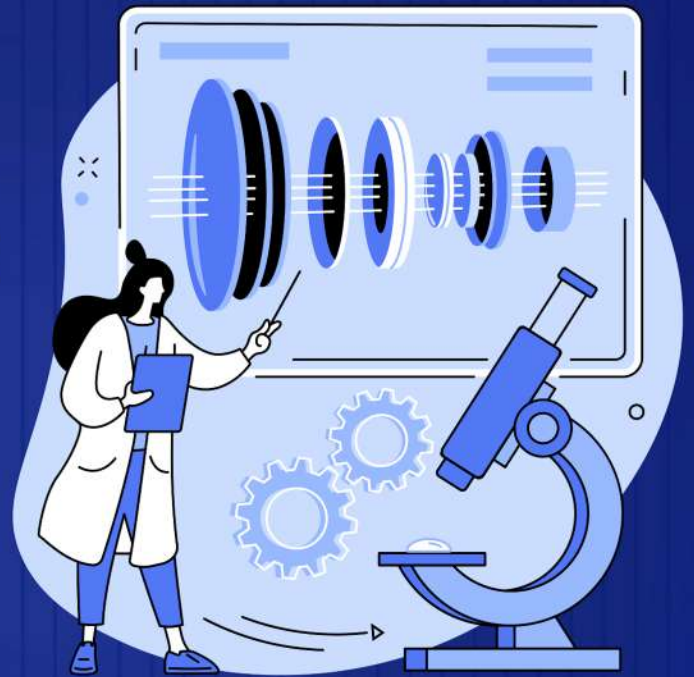
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EDITORIAL

Dear AIIMS Family,

A disclaimer at the outset.... This editorial is not written by chat GPT!

As a student of general surgery, I had only read about laparoscopy in text books, and it was part of surgical armamentarium only in few select hospitals. Fast forward to the present and even government hospitals across the country have robotic arms in operating theatres. Technology seamlessly became an integral part of healthcare over the last decade and now changes are happening so fast that 'blink and you will miss'!

Artificial Intelligence (AI), started as BI (borrowed intelligence of humans) transforming into CI (creative intelligence), rapidly evolving with DI (dynamic intelligence) and EI (emotional intelligence)! This new neural network species seems so human and yet being caring, compassionate and nurturing, are the essential traits that make us what we are: too unique to replicate!

As healthcare treads cautiously into machine learning, AI has taken the world by "storm"! AI can help us predict and prevent natural disasters more accurately. We celebrated Earth Day in April and also Environment Day recently. Let's hope that technology that is easing our lives and helping us find and get everything at the click of a button, also helps us find ways and means to safeguard our polluted mother Earth. Sustainable & renewable energy is the next big focus for mankind. As hospitals use more and more disposables and also generate biomedical waste, there is a vacuum in "recycling and sustainability" technology and that may be a potential space for new gadget gurus and robots to eat into!

Happy Doctors' Day to all the doctors in our AIIMS family and beyond.

-Dr Deepti Vepakomma



KNOW YOUR FACULTY

DR. RAJEEV ARAVINDAKSHAN

(Department of Community and
Family Medicine)

Interview done by
Kalyani AP
Dedeeep Sai

Could you tell us a bit about your childhood, family and schooling?

I was born just a couple of decades after the end of the second world war (just to give you a perspective on how time flies) as the middle-born son between two daughters. I had the most loving grandparents who incidentally took care of me later, during my medical college days, with all my angularities. My education was spread along the entire length of Kerala from Kasaragod in the north to Thiruvananthapuram in the south, a result of the frequent transfers my father used to get thanks to his unwavering sense of what was right.

Can you tell us more about your parents and family?

It might be interesting to the present generation of medicos to know that my father, in those days, was the amalgam of surgeon, gynecologist, orthopaedician and anesthetist (as it was known then). The specialties mentioned were far and few in those days. That made him the daredevil hero in my eyes. Of course, to balance his busy schedule and look after the three of us, we needed an angel at home, who got supplemented later in life by my numeric co-processor who happens to be an engineer. She works as Professor of Civil Engineering (and an earthquake specialist for taking care of unexpected tremors in life !).

Could you tell us about some of the best memories during your UG and PG days?

That period belonged to those times before TVs, 100 cc bikes and mobile phones and radiology departments had only X-ray machines! My alma mater is the same for both these courses and it was situated near my birthplace, i.e., Government Medical College Kottayam, Kerala. The place is now a well-known centre for entrance coaching in the south; started and maintained by my teachers and contemporaries (many of whom are now heading departments).

The best memories in my life might have been the visits to waterlogged areas for medical camps with our house surgeons; rowing canoes and walking back at times, through the fields to reach the main shore when we missed the boats. There were also expeditions to nearby high ranges for service camps which required staying over in schools and such places.

What motivated you to go into medicine and why are you inclined towards Community & Family Medicine?

The perception then (and probably now too) was that marks meant everything in life and consequently, as a result of a logarithmic fallacy, biology became my domain. Once in biology, one had to get into medicine. It might be interesting for you to know that our MBBS batch was the first one in the state to get into medical colleges through a proper entrance test.

Later, the first ever PC to come into the market (Siva PC) bit me during the third year of MBBS thanks to one technophile in my batch and the device has stayed with me through DOS to WinDOWS (and 8086 to Intel i5). The entrance story repeated for PG admission as well. The choices for me in the entrance examination were radiology (with ultrasound just on the horizon and only two MD seats in the entire state), community medicine and pharmacology. My personal forecast was that these three departments would be where computers will be used in the future (Nostradamian insight) even though the scene was not very promising then. Just to inspire those who are facing the spectre of NExT examination, my cohort never had entrance coaching of any kind because entrances were spanking new then. We faced them head on!

Could you tell us about your strengths and weaknesses?

My weakness is that I am a total introvert, and my strength is that I overcame that to some extent by joining community medicine.

How is your experience at AIIMS? In what areas is this institute different from the ones you previously worked at?

I have worked most of my life within the triangle made by Tiruvalla (Kerala), Sohar (Oman) and Mangalagiri with many early years in the epicentre that is Mangalore, Karnataka. I am lucky to have been a teacher to many leaders in the field of medicine now. The varied experience in budding deemed-to-be universities and private institutes of repute in India and abroad has been a big bag of career opportunities. The culmination of this journey happens to be in Mangalagiri and the growing pains were worth it, in terms of the value addition it provided to my career. The two chances to join the government (state and central) sector which I passed up have been compensated by this experience.

How is Mangalagiri different from your hometown? Have you faced any issues during the initial days here?

We joined the SMC campus first; and in the bustling city that is Vijayawada, one does not fully have to deal with the consequences of an inter-state move. Of course, moving to Mangalagiri was not as smooth a transition as the Vijayawada one and hence, it had its own associated hardships. Traffic was the biggest hurdle in the city until flyovers came up. The campus has also developed into its present shape and size even though the civic amenities are in advanced formative state.

How do you cope with the language barrier as CFM requires more interaction with the public?

This is one area which has created maximum hardship in relation to the question before. I have been lucky to have bilingual colleagues right down to the field staff who understand the limitations and adapt to the situation.

What are the difficulties you faced during COVID-19 especially as a community physician?

COVID-19 threw a curveball at all of us, especially the older ones among us, as it targeted the elderly and vulnerable. The two and half years of pandemic had been the maximum I stayed away from Kerala in my entire life. The pandemic was also the culmination of my teaching career as the Armageddon we always taught the students to be prepared for, really happened right in front of our eyes. Of course, the role played by the primary care team across India has been exemplary. (I would not bring my vaccine activism here in this short interview)

Could you tell us about your hobbies?

I overgrew my hobbies such as listening to music and drawing caricatures over the course of my internship days, never to pick them up again. I read English novels a lot though.

What is your life's most cherished moment?

Passing the post-graduate examination was probably the best moment which can be described as such. Since then, I have learned to take it all with a pinch of salt!

If you could go back to your days as a student in medical college, is there anything that you would like to do differently?

I did go back for the advanced course in medical education to my alma mater where I did see some of the changes that I had wanted in the form of competency based medical education and student centred learning. It was not possible in the absence of technology and other facilities which the current generations are blessed with.

I would definitely have wanted a computer laboratory in department of community medicine instead of me being forced to haunt the nearby arts and science colleges and computer institutes for such smart facilities.

What is one aspect of the medical field you would wish to see more change in, in the coming years?

The medical field is a bit ironic in that the discoveries and inventions made in healthcare are by people outside the field such as engineers and scientists. The environment within the institutes is generally not of a promoting kind in terms of improvising the existing methods or machines. The resistance to change is completely within. However, once a finished product such as drug/vaccine/machine comes into market, we, invariably, are the first ones to jump at it too.

What is your secret to success?

There is only so much life in our existence and success is a very relative concept. Just like the successful products and concepts which reigned in my younger years have passed into oblivion, we must also fade away one day. Understanding this transience, if we can be resilient, would keep us content.

What is your advice to the students?

This too shall pass! Keep praying to the Almighty to grant you the serenity to accept the things you cannot change, courage to change the things you can, and the wisdom to know the difference, living one day at a time; enjoying one moment at a time; taking this world as it is and not as you would have it!! (Reinhold Niebuhr)

Gallery



A photo with Dr Archit Bloor



Me and my dissection table mates



Me and my wife



Me and my friends



INTELLECTION

An expression of our simplest to most complex thoughts as stories / poems.

This is the 'intellectual collection'

ARTIFICIAL INTELLIGENCE INDUCED ROBOTIC SURGERY

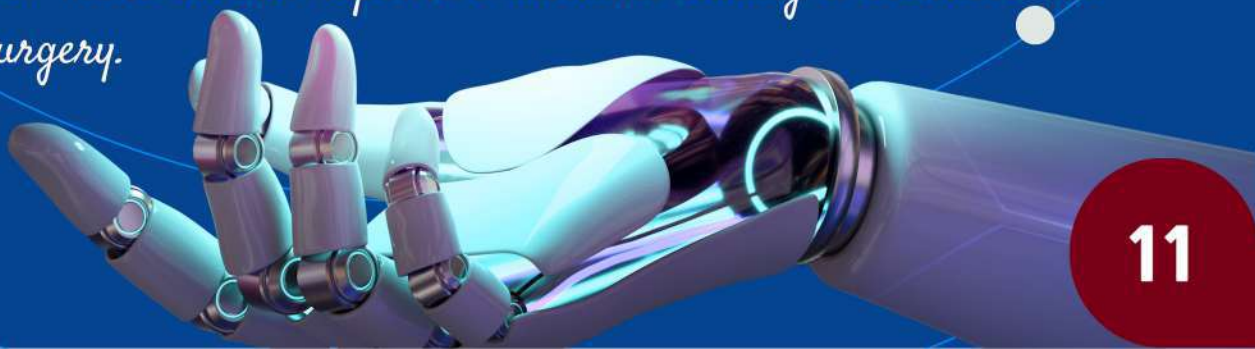
Recently, the rate of production and renewal of information makes it almost impossible to stay updated. The idea of AI, which was first introduced in 1956, has evolved over time by revealing deep learning and evolutionary plexus that can mimic the human neuron cell.

Image processing is leading the improvement in developed algorithms. Theoretically, these algorithms appear to be quite successful in interpreting medical images and orthopaedic decision support systems for preoperative evaluation. The first robotic applications of orthopaedic surgery started in 1992 with the ROBODOC system. Applications started with hip arthroplasty and continued with knee arthroplasty.

Publications indicate that problems such as blood loss and infection caused by the long operation time in the early years have been overcome with the help of learning systems that surgeons can train on. Although studies indicate that new technologies could be more successful than humans, technology may not be able to replace experience and conventional methods altogether.

The first records of robotic surgery performed date to the 80s. Specifically, the first surgical robot, PUMA 560, was used in a brain biopsy procedure. This procedure took place in 1985 as robotics started to be implemented to reduce movement due to hand tremors.

Then in 1988, the PROBOT, developed at the Imperial College London, was used to make several repetitive incisions during a transurethral prostate surgery.



At the beginning of the 90s, Integrated Surgical Solutions, Inc. and IBM developed ROBODOC. In 1992, they successfully used ROBODOC to prepare the femur for hip replacement in human subjects.

By the late 90s, engineers had developed three different systems that combined laparoscopic technology with surgical robots. These systems were the da Vinci Surgical System, the AESOP, and the Zeus surgical systems.

2001 marked the Lindinburg Surgery, which was a major success for telesurgery. Doctors Jacques Marescaux, from France, and Michel Gagner, from Canada, performed a remote gallbladder removal surgery from New York City. The patient was in Strasbourg, France, during the procedure.

Some of the robotic surgery procedures are gynaecologic procedures, prostate surgery, kidney surgery, gallbladder surgery and other procedures.



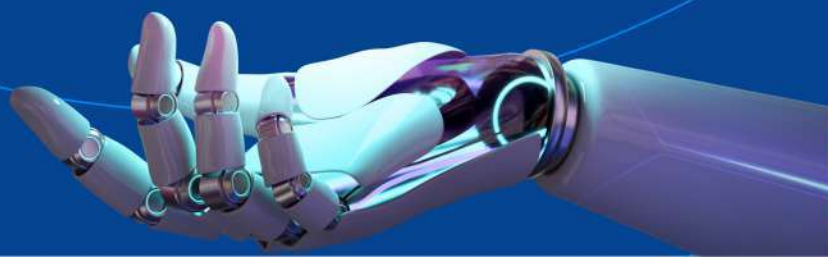
References:

Hinman's Atlas of Urologic Surgery. 4th ed. Philadelphia, PA: Elsevier; 2019:chap 7.

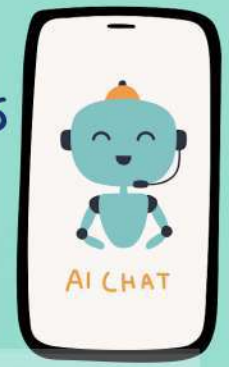
Sabiston Textbook of Surgery. 21st ed. Philadelphia, PA: Elsevier; 2022:chap 16.

Miller's Anesthesia. 9th ed. Philadelphia, PA: Elsevier; 2020:chap 71.

-M S SAILAJHAA
DEO
GENERAL SURGERY



Empowering Healthcare Students and Workers with ChatGPT in Their Lives and Career



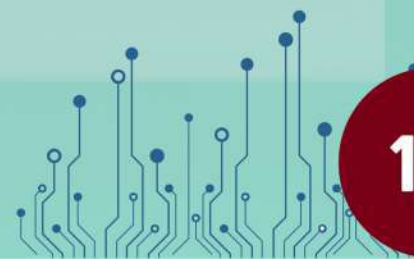
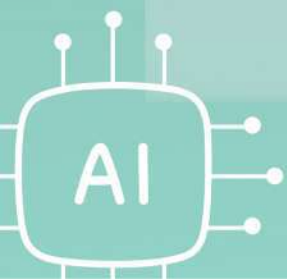
As the field of healthcare continues to evolve, incorporating emerging technologies becomes essential for students and professionals alike. Artificial intelligence (AI) has emerged as a game-changer, offering innovative solutions to various challenges in the industry. One such AI-powered tool is ChatGPT, an advanced language model developed by OpenAI. This writeup explores how healthcare students and workers can leverage ChatGPT to enhance their daily lives, improve patient care, and advance their careers.

1. Enhancing Medical Education:

ChatGPT can serve as a valuable resource for healthcare students during their educational journey. It can provide instant access to a vast amount of medical knowledge, research papers, and clinical guidelines. Students can pose questions to ChatGPT, allowing them to reinforce their understanding of complex topics and improve their problem-solving abilities. Additionally, ChatGPT can be used as a virtual study partner, engaging in interactive discussions and stimulating critical thinking.

2. Facilitating Clinical Decision-Making:

In the healthcare industry, quick and accurate decision-making is crucial. ChatGPT can assist healthcare workers by acting as a reliable clinical decision support system. By inputting patient symptoms and relevant medical information, healthcare professionals can receive suggestions and recommendations from ChatGPT. This can help in diagnosing rare conditions, identifying potential drug interactions, and exploring treatment options, ultimately improving patient outcomes.



3. Improving Patient Communication:

Effective communication between healthcare providers and patients is paramount. ChatGPT can play a significant role in bridging this gap. With its natural language processing capabilities, ChatGPT can generate patient-friendly explanations for complex medical terms, diagnoses, and treatment plans. It can also serve as a virtual health assistant, answering patients' questions, offering lifestyle recommendations, and providing personalized health information.

4. Enabling Research and Innovation:

Research is a vital aspect of the healthcare field, and ChatGPT can serve as a valuable tool for healthcare professionals involved in research and innovation. It can assist in literature reviews, extracting relevant information from medical databases, and generating preliminary hypotheses. Researchers can collaborate with ChatGPT to explore new avenues of study, validate findings, and uncover potential breakthroughs.

5. Medical Case Discussions and Consultations: Doctors and nurses can leverage ChatGPT for case discussions and seeking expert opinions. By presenting complex case scenarios and discussing possible diagnoses, treatment plans, and management strategies, health professionals can enhance their clinical reasoning and problem-solving skills. ChatGPT acts as a virtual consultant, providing insights and alternative perspectives to aid in patient care.

ChatGPT holds tremendous potential for healthcare students and workers, augmenting their knowledge, facilitating decision-making, improving patient communication and enabling research. However, it is important to remember that ChatGPT is a tool and should be used in conjunction with professional judgment and ethical considerations. Integrating AI technologies like ChatGPT into healthcare practice can empower individuals to provide better care, stay up-to-date with advancements, and excel in their careers, ultimately benefiting the patients they serve.

References:

<https://www.jmir.org/2023/1/e48392/>

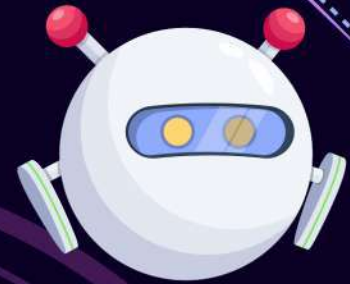
<https://ccforum.biomedcentral.com/articles/10.1186/s13054-023-04380-2>

<https://www.medrxiv.org/content/10.1101/2023.02.21.23285886v1>

- M Fayiz

Batch 2020

THE BEGINNER'S GUIDE TO AI



Change is the only constant in life and also in the field of medicine. With the great change of AI, there also comes a great opportunity to expand the scope of medicine beyond conventional norms.

The sooner we adapt to this changing medical environment the greater we can contribute in driving it forward and provide maximum benefit to our patients. This is why as future doctors it's our responsibility to not only adapt to more evolved forms of Healthcare but also fully understand the positives and negatives to applying it in practice.

AI is taking the world by storm in literally every field ranging from healthcare, education, transport, research, communications, marketing and even the entertainment industry, that's why we must take our first steps in understanding what AI is and why it's such a big revolution in today's world.

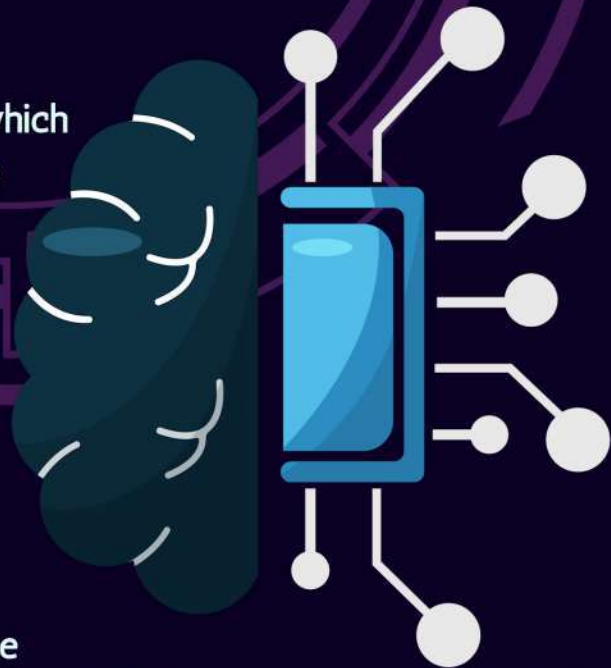
What is AI?

AI is the branch of computer science which enables computer programs to perform tasks normally performed by humans. Ultimately, it aims to enable computer programs to think and act like human beings and aid in decision making.

What are its applications in medicine?

The major applications of A.I in medicine

1) Management of patient flow in OPD and IPD departments and reducing medication errors.



2) Ensuring hand hygiene through AI based alarm systems which ring whenever a step is missed .

3) Keeping track of various steps included in checklists like NICU checklists.

4) Enables patient prioritization in emergency rooms so that most vulnerable and at-risk patients are admitted first. This is possible through A.I based triage scans which screen several patients at an instant and identify the patients who need admission immediately.

5) Round-the-clock monitoring of patient's B.P, blood sugar and heart rate.

6) Early diagnosis and identifying the disease the patient is at risk of developing by assessing his genetic profile from a simple saliva sample. This allows us to suggest corrective lifestyle changes to prevent the disease from occurring in the first place.

This has been revolutionary in treating neurodegenerative diseases like Parkinsonism where early intervention has the best prognosis.

It can alert patients who are at risk of developing certain cancers enabling them to make early lifestyle changes.

AI has allowed us to take the popular statement "Prevention is better than cure" to the next level by identifying diseases even before symptoms can manifest.

7) Govt. Of India is welcoming AI into the Health Sector through Ayushman Bharat Digital Mission (ADB) which is an entire health ecosystem with benefits like-

a) Access to e-prescriptions and claims

b) Access to digital records of patients across hospitals for storage and retrieval.

c) Reducing administrative burden on hospitals

8) Medical education is evolving with AI based 3-D models and virtual learning.

9)FDA approved AI systems like Da Vinci and several others have assisted in nearly 10 million operations till date.

10)AI also played an important role in the COVID-19 pandemic by identifying patients of covid, tracking and mapping the spread of the virus, therefore helping in taking measures to contain the virus.

Finally, AI is a boon to so many in the healthcare sector and is fundamentally an assistant to the clinician and not a replacement. It is a tool for skilled and experienced clinicians to further improve the way they treat their patients by reducing the burden of patient flow and allowing them to give more attention and time to each patient.

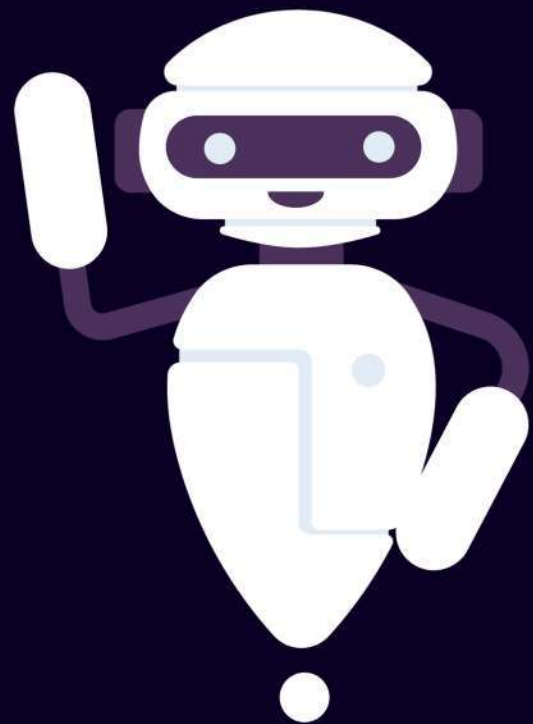
AI is the way of the future in a rapidly evolving medical sector and by embracing change we enable our physicians to work at their best while AI handles the rest.

References:

<https://pubmed.ncbi.nlm.nih.gov/35955022/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9140402/>

<https://www.sciencedirect.com/science/article/pii/S2666990023000034>



-P V Vignnesh
Batch 2020

BEYOND ROBOTIC SURGERY: HOW AI TRANSFORMS MEDICINE



When speaking about application of Artificial intelligence (AI) in medicine, the first image that forms is that of a patient on the surgery table surrounded by many robotic arms. But AI in medicine is not just about robots performing surgery. It is a broad term that refers to the use of computer algorithms and models to analyze data and generate results that can help improve the outcomes of patient health and health care experiences. AI has numerous applications in medicine, ranging from diagnosis and treatment to research and drug discovery.

AI for Diagnosis and Treatment

- AI can help healthcare workers make decisions about treatments, medications, mental health and other requirements of a patient by providing them with quick and easy access to patient clinical records, relevant research literature, diagnosis and treatment protocols.
- AI can also analyze medical images like X-rays, CT scans and MRI for abnormalities and other findings that a human radiologist might miss. For example, Google Health has developed an AI system that can detect breast cancer from mammograms and has a higher reported accuracy than human experts.
- AI can also predict outcomes from data other than images, such as EEG and ECG and there are some AI based tools that can predict mortality risk in patients with sepsis, stroke cardiovascular events etc, by analysing the vitals.

- AI can also help in remote examination and assistance of patients by doctors who are not physically present at the site, using AI-controlled robotic arms and technology for video conferencing. Another example is a robot arm that can be controlled by the patient's brain through electrodes implanted on the scalp which may replace conventional prosthetics.

AI for Research and Drug Discovery

- AI can accelerate the pace of medical research and drug discovery by finding patterns, relations and trends in large and complex data. For example, an AI system called AlphaFold can predict the three-dimensional structure of proteins from their amino acid sequences.
- The concept of precision medicine is also augmented by AI. It is the tailoring of medical care to an individual level and providing personalised treatment recommendations based on the genetics of each patient.

AI for Healthcare Access and Delivery

- Healthcare related apps based on AI have potential to drastically improve access to healthcare for common people. Babylon is an AI powered app that allows periodic health monitoring, screening symptoms, analysing lab reports and online consultation with doctors if found necessary.
- AI can also reduce hospital workload by taking care of tasks such as scheduling, billing, inventory management, and disinfection. For example, Aethon is a company that provides autonomous mobile robots that can deliver supplies, medications, and lab specimens within hospitals.



Babylon- An AI powered Health care app that does regular health checkups, gives advice, screens symptoms and helps in online consultation with expert doctors.

AI in medicine is a rapidly evolving field that offers many opportunities for improving healthcare and advancing science. However, it also poses many challenges and ethical dilemmas such as data safety, reliability in case of data from various populations, privacy concerns, lack of transparency, technical faults, glitches and the balance between doctors and AI. If all of these are carefully considered and addressed, AI can be the next major revolution in the field of medicine.



A robotic arm controlled by the human brain



Aethon- A robot which transports supplies, medications, specimens and documents inside the hospital

REFERENCES:

- (1) Patient Monitoring and Assistance using Robotic ARM – IJERT. <https://www.ijert.org/patient-monitoring-and-assistance-using-robotic-arm>.
- (2) This robot arm can be controlled by the power of your brain. <https://www.sciencefocus.com/news/this-robot-arm-can-be-controlled-by-the-power-of-your-brain/>.
- (3) Robotics in Healthcare: The Future of Robots in Medicine - Intel. <https://www.intel.com/content/www/us/en/healthcare-it/robotics-in-healthcare.html>.
- (4) 6 Applications for Robotics in Medicine - ASME. <https://www.asme.org/topics-resources/content/top-6-robotic-applications-in-medicine>.

-Kalyani A P
Batch 2020

WHAT DO YOU THINK OF AI?



Hey, let's talk about the tech of Gen.-Z

You mean about Artificial Intelligence?

I'm very curious to know how it would impact our hospitals and what the doctors have to say



Yes, it surely affects the medical branch, and as a junior doctor, I can imagine how it would change and enhance the processes

How do you think a robot should be implemented in a consultation room?



The role should be a few preliminary tasks, like prescription writing, directing the patient to the specific department after analyzing their disease, etc.

Robots have memory and data storage capabilities on a very different level, so by tapping that potential, we can establish robots as advisors to doctors, which can keep updating the doctor regarding newer discoveries. It can also apprehend the complications that might happen in a certain procedure and can be used as an alert system.



While the Surgeon is the guiding hand, the Machine should be acting hand. The human will have powers to make critical decisions with help of his humane side. While, the machine, with its precision and accuracy would help in improving outcomes.

Well, that is pretty nice. How do you think a robot might be an ally to the doctors?



A few from the top of my head are –shortened consultation times, reducing manual mistakes and incidences of negligence, working for prolonged durations without getting tired and managing heavy patient load.



Not to forget how doctors have succeeded to control robots from a remote area. Robots are also helpful in emergency departments. Also, in triage situations, they would be more effective, as humans might be masked by their emotions.

That's a huge list of merits, I would say. Don't you think the medical field might be jeopardised by the AI bots?



Being in the developmental phase, rather than being a catalyst, AI might result in counterproductive outcomes. Not to forget, the concern of losing jobs for many people, which is economically very dangerous. As the technology gets sophisticated, the cost of services also would increase and that would be pushing the poor into a poorer state.

One other famously anticipated concern is how AI might over-rule humans, which is a jeopardy, not only for the medical field, but for the entire globe. And lastly, technical glitches are bound to happen, and in times of emergency and crisis, they are not acceptable.



#mmm... If you are to have a surgery, who would you want to have behind the scalpel? A human doctor, or a robot?

I would wish my surgery to be performed by a human, as putting our life in hands of a robot, that is still evolving, prone to technical glitches, equipment malfunctions and non-empathetic, is not acceptable to anyone who cares to live.



According to me, a robot would be prepared in such a way that it wouldn't make a single mistake because of the inserted algorithm. But humans are always prone to making mistakes. A robot can proficiently perform complicated and microsurgeries while every surgeon might not be as proficient and qualified. So I prefer a robot.



Well, I would prefer a coordinated work during my surgery. What do you think is the case when it comes to mental and psychiatric disorders?

I would prefer a human doctor, as humans are better at handling emotions and humans are the ones having emotions in the first place, not a robot. A robot is merely a compilation of permutations and combinations of sets of scenarios mimicking real life situations, hence getting into the crux of every unique case presented to it is difficult.



I think, a robot is a level above when it comes to confidentiality. A human might breach confidentiality, but a robot is programmed not to do so, making it a better confidant. A robot also wouldn't judge the patient after listening to their story, but humans invariably judge, even though they don't mean to.

That's true too. You are aspiring to become a doctor, right? How does the introduction of AI affect what you choose as your speciality?



I had a sweet spot for Radiology. Now I think, we human doctors would be rendered jobless once AI takes over this field effectively. I am reconsidering my options now, as I don't really want to go into a profession where we are not on the centre stage of work.

It really wouldn't. However, if AI is expanding and becoming a part of Medicine, be it any speciality, I would prefer to actually accept it and adopt it than to stay on the sidelines. By working with it, I would realize how it too has shortcomings, which only we can resolve.



Now, once you become a doctor, and you find yourself in a situation where the robot's response to an issue is contradicting yours, whose decision do you think should be given priority?

A physician's decision is considered more supreme than the one suggested by AI, as a physician has a treasure that AI truly lacks, which is years of experience and the emotional quotient.



But, AI has the database of almost the entire medical literature, so the case that a doctor might fail to see as it is, can be judged and diagnosed by a bot, as it can easily pick it up from the literature that is famous or known to every single doctor.



I think, AI's decision can be considered if it succeeds in explaining the reason behind the response. Now, what about medico-legal issues involving robots?

The company that developed the AI programme would be held responsible, as there was a flaw in the algorithm or a deficit of an algorithm to handle such a case.



A doctor can also be pointed at, as it is their responsibility to supervise the work done by AI bots, and AI also can't handle every single type of case that is presented to it, as it is still an evolving system. It would be the doctor's mistake to leave the case entirely in the hands of an AI bot.

#mm... That's an interesting way to see at it. Coming to my next question, which department might be the most benefitted by AI?



The branch already implementing AI in their procedures is Surgery. The other branch that necessarily requires highly sophisticated devices is Radiology and Radiodiagnosis.

General medicine is a branch with a very high patient load, so AI might be used to deal with such high numbers. Emergency department also can use AI effectively, in cases of triage



Finally, don't you think AI will rob workers of their job? So, is it a boon, or a bane?

Everytime technology advances, a set of jobs does go obsolete. And so the people associated with it are robbed of their livelihood. But we can't hold it responsible for making people jobless.



Yes, otherwise, we would have to stay stagnant with our technological advancements, and ensure a job security to everyone. We humans are always capable of more. And thus we adapt.

Yes, it's absolutely true. It was very nice talking to you both about the technological advancements. I feel much more enlightened about AI. I hope we have many more conversations like this.



Until next time

Information in the above conversation is derived from responses of AIIMS MG MBBS students to a questionnaire on AI prepared by - M Fayiz, N Vivek, Kalyani AP, NL Keerthana (Batch 2020)

chronicles of medicine



Deaths due to choking were so prevalent in the 1970s that, according to reports of the New York times, in 1972 alone, 3000 people died because of accidental choking of food in the country of United states, making it the 6th most common cause of accidental deaths. Additionally, the symptoms of choking were not identifiable for most people, which made it likely that anyone who saw such an occurrence would mistake it for a heart attack and hence the name "cafe coronary". This was further complicated by the mounting research that called into doubt the efficacy of the choking first aid technique that was then commonly accepted: back thrusts.

This was the situation in America when a surgeon from Ohio started working on anesthetised beagle dogs by purposefully inserting large chunks of meat into their airway and attempting to push them out by various maneuvers. After trying several techniques that proved ineffective, he learned that pressing upward on the dog's diaphragm could create a flow of air that would force the meat out of the windpipe. The Heimlich manoeuvre, which is still used as the first aid for choking, was developed as a result of his efforts to modify this manoeuvre for use on people of all shapes and ages.

The doctor who devised this method was Dr Henry J Heimlich, a thoracic surgeon specialised in lung and chest disorders. He published his findings in an informal essay entitled "Pop Goes the Cafe Coronary" in the June 1974 issue of Emergency Medicine magazine. He described the maneuver as follows: "Place the thumb side of your fist before the rib cage, just above the belly button, grasp the fist with the other hand and press the fist inward and upward. Perform it firmly and smoothly and repeat until choking object is dislodged".

Dr. Heimlich wanted his maneuver to be known and practiced by the public at large, rather than exclusively by health professionals. He contacted a medical reporter named Arthur Snider, who wrote a column for the Chicago Daily News on June 16, 1974



introducing the Heimlich maneuver to millions of readers. The success of this maneuver became evident just a week after its publishing, when a retired restaurant owner Isaac Piha saved a fellow vacationer who was choking with a piece of chicken at a summer cottage.

Since then, numerous organisations, including the American Red Cross, the American Heart Association, and the WHO, have endorsed the Heimlich manoeuvre, making it one of the most well-known medical techniques in the entire globe. It has been credited with saving the lives of many celebrities, such as Ronald Reagan, Elizabeth Taylor, Clint Eastwood, and Jack Lemmon. Dr Heimlich himself used his maneuver for the first time at age 96 to save a fellow resident at his retirement home who was choking on a piece of hamburger.

Dr. Heimlich was not only known for his maneuver but also for his other contributions to medicine. He invented several devices and techniques for chest surgery, such as the Heimlich valve, the Heimlich chest drain valve, and the micro-trach. He also advocated for controversial treatments for diseases such as AIDS, cancer and Lyme disease using deliberate infection of patients with malaria parasites.

Dr. Heimlich died on December 17, 2016, at age 96. He was a visionary surgeon who dedicated his life to finding innovative ways to save lives. His most famous invention, the Heimlich maneuver, has become a lifesaving legacy that will continue to benefit millions of people for generations to come.

References :

<https://www.pbs.org/newshour/health/dr-heimlich-got-maneuver>

https://issuu.com/fireandrescueinternational/docs/fri_vol_6_no_4_interactive/s/16357372



-Kalyani A P
Batch 2020

ABHIWAKTI



'Going beyond words and bringing out the artist within by a sketch or painting, or letting the lens of a camera capture the moment which one wishes to share and experience forever.'



KLIK BY RAM
28-May-2023, 18:17

Mini Taj Mahal,
Aurangabad

A longstanding myth holds that, "Shah Jahan planned a mausoleum to be built in black marble as a Black Taj Mahal across the Yamuna river"

*Ram Vinakoti
2022 Batch*



*B. Sanjay Kumar
2021 Batch*



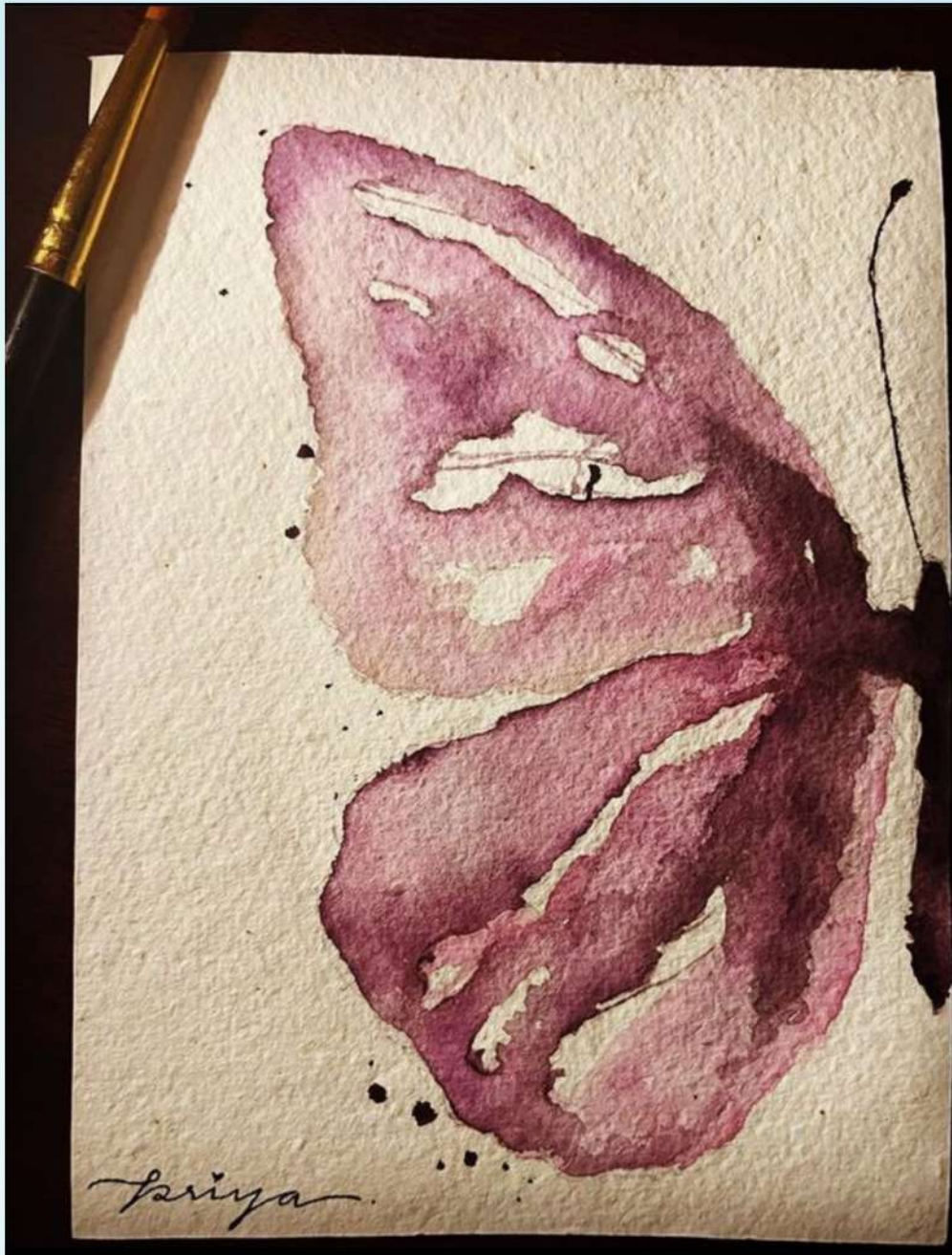
*It doesn't matter how slow you go...
As long as u don't stop....*

*B.Naga Para Charan
2021 Batch*



*"Monsoon hits differently after a long summer in
AIIMS MANGALAGIRI "*

*Shaik Mudassir
2022 Batch*



*"A butterfly reminds us that there is
always beauty at the end of all the pain."*

*Priyadharshini Kannan
2021 Batch*



Constructive destruction ?

*K.Nandita
2020 Batch*



P
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Time, Energy and
Resources well
spent !



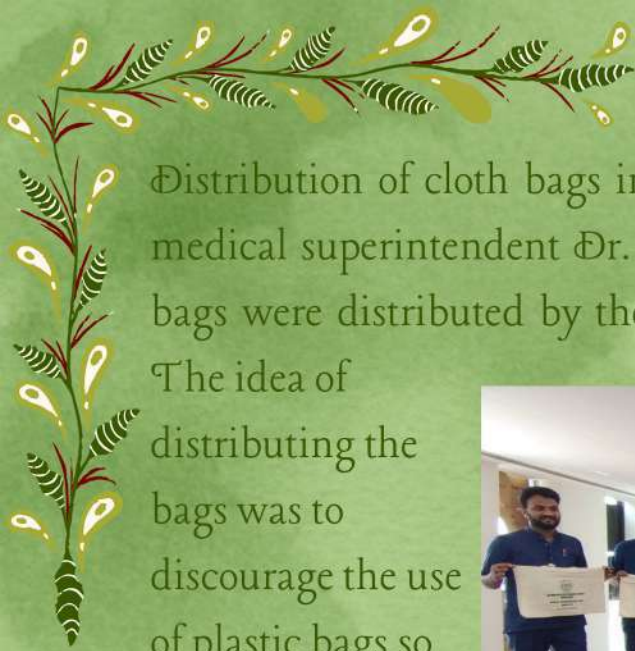
World Environment Day 2023



World environment day 2023 on the theme 'Only one Earth', was celebrated in Aiims Mangalagiri campus on 5th June 2023. The following activities were carried out with the sanitation and hygiene committee, social and environment club, and nursing officers association under the Swachhta action plan.

Awareness talks in the OPD on various aspects of environmental pollution and different solutions on tackling the same given by nursing officer Mr. Harsha G. A mime was done by nursing officers on the theme of plastic pollution which the audience appreciated. The mime ended with a message on stopping plastic pollution.





Distribution of cloth bags in the OPD to patients was carried out by the medical superintendent Dr. Vineet Thomas Abraham. In addition, cloth bags were distributed by the nursing officers and various other faculties. The idea of distributing the bags was to discourage the use of plastic bags so that plastic consumption can be reduced.



All the activities were well coordinated and were appreciated by the public. We thank all the people who participated in the events.



-Dr Bakshi S
ENT Department



PLANTATION DRIVE

FROM SINGLE USE TO SUSTAINABLE: UP-
CYCLING WASTE INTO GREEN



We don't have to sacrifice a strong economy for a healthy environment.

-Dennis weaver

For planting trees, we don't need a lot of resources; all we need is a caring heart and initiative. With this idea in mind, we, the members of the Social and Environment Club, have collaborated with the faculty and horticulture team to develop the concept of "upcycling waste into greenery" on the occasion of World Environment Day which is celebrated every year on June 5th.

Upcycling transforms old items into new ones, and the possibilities of upcycling waste are nearly endless, limited only by your imagination. Recreating waste into greenery is a fantastic way to promote sustainability and environmental consciousness. The presence of greenery around us creates an aesthetically pleasing environment and contributes to stress reduction.

All of us were filled with excitement, as upcycling was something we had previously enjoyed while contributing to various events in the institute, such as UTHPAN and Anusandhan decorations. Every one of us gathered plastic bottles from different locations on campus. With a variety of bottle types and colors, we were confident that we could make our campus vibrant by planting saplings in them. We created hanging pots by cutting openings on the surface of the bottles and filling them with soil and compost. Discarded wires were ingeniously utilized to suspend the pots. Despite the scorching weather, we thoroughly enjoyed working together to bring our vision to life.



Finally, on the day of World Environment Day, June 5, 2023, we joined hands to plant the saplings in the bottles we had created and hung them in various areas around the entrance of our UG amenity hall. We vowed to nurture them every day and take good care of them, dedicating our free time to their well-being. We felt very fortunate to plant them and bring them up with our own hands. We are filled with excitement and eagerly anticipate witnessing the serene greenery flourish

The primary goal of this initiative is to promote greenery in every corner of our campus through sustainable and innovative ideas, while raising awareness among all of us that it is our duty to take care of our environment, as we have only one Earth

Our sincere gratitude to everyone who participated. Hoping further participation and support from all.



**-ASU SATYA
BATCH 2020
S&E CLUB**

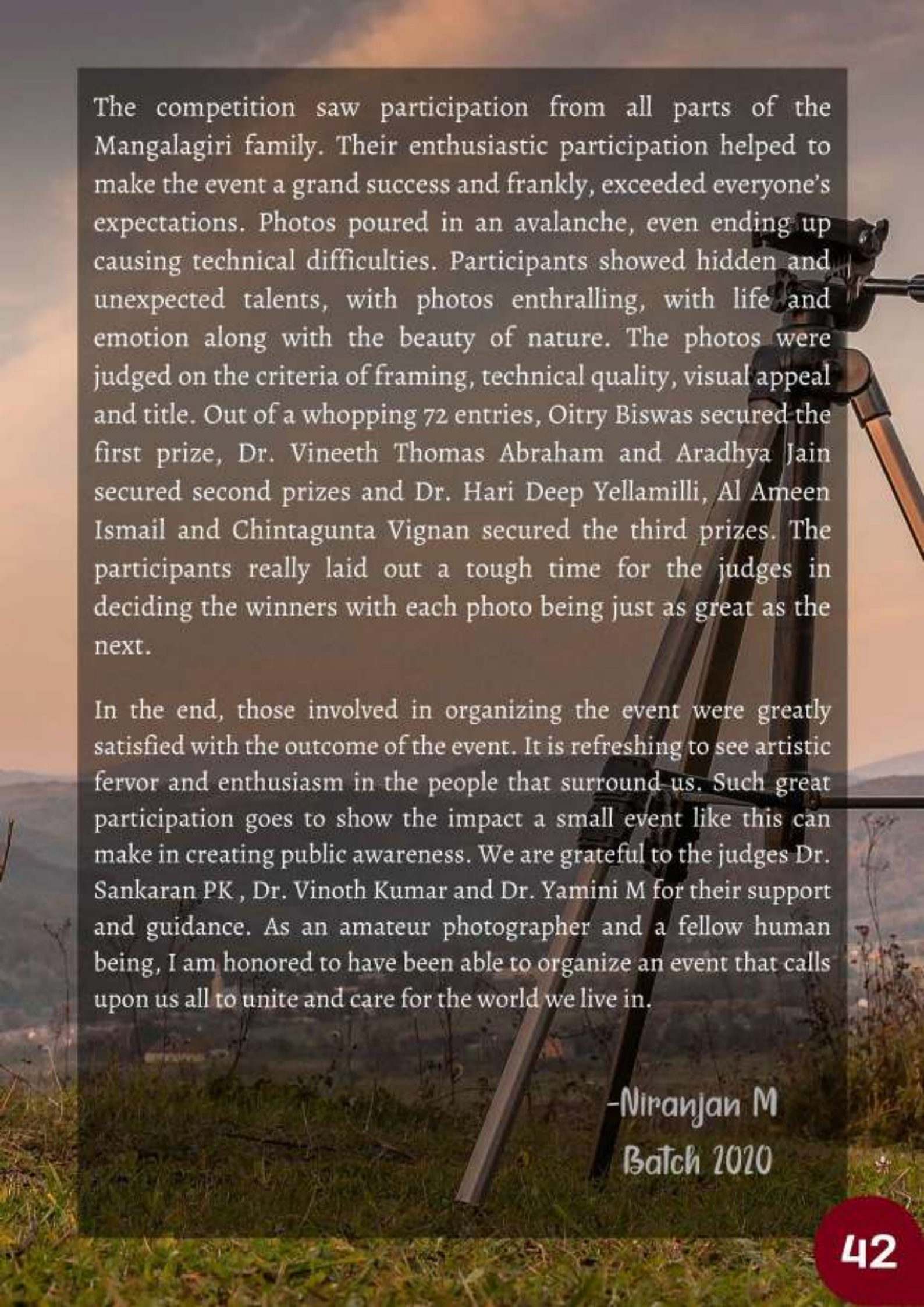
GALLERY



DHARTHIFY

Mother Earth - She is beautiful, nurturing and awe-inspiring. She is kind to her children, providing all that we need to live comfortably. But in the face of growing environmental deterioration and climate crisis, her nurturing cradle is threatened. Out of concern for her, humankind, her most responsible children, decided to take action. Every year, on April 22nd, we celebrate 'Earth Day', marking the anniversary of the birth of the modern environmental movement in 1970. It aims at creating public awareness regarding the growing environmental crisis. It is a day of action to change human behavior and create global, national and local policy changes.

In solidarity with Earth Day 2023, the AIIMS Mangalagiri family participated in a nature-themed photography competition conducted by the students from the 10th of April to the 22nd. The competition named 'Dharthify' aimed at creating awareness regarding the existence of the environmental movement, to remind people of the need for action to prevent deterioration of the planet we live on and to remind them that we are all on the same boat. There is a growing need for unity amongst the population to create a greater impact on saving earth (therefore Dharthy+ Unify=Dharthify).



The competition saw participation from all parts of the Mangalagiri family. Their enthusiastic participation helped to make the event a grand success and frankly, exceeded everyone's expectations. Photos poured in an avalanche, even ending up causing technical difficulties. Participants showed hidden and unexpected talents, with photos enthralling, with life and emotion along with the beauty of nature. The photos were judged on the criteria of framing, technical quality, visual appeal and title. Out of a whopping 72 entries, Oitry Biswas secured the first prize, Dr. Vineeth Thomas Abraham and Aradhya Jain secured second prizes and Dr. Hari Deep Yellamilli, Al Ameen Ismail and Chintagunta Vignan secured the third prizes. The participants really laid out a tough time for the judges in deciding the winners with each photo being just as great as the next.

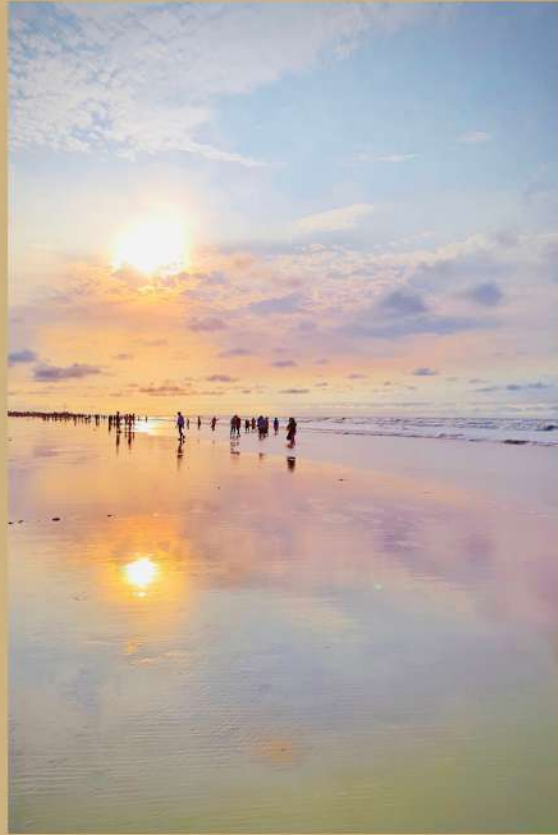
In the end, those involved in organizing the event were greatly satisfied with the outcome of the event. It is refreshing to see artistic fervor and enthusiasm in the people that surround us. Such great participation goes to show the impact a small event like this can make in creating public awareness. We are grateful to the judges Dr. Sankaran PK , Dr. Vinoth Kumar and Dr. Yamini M for their support and guidance. As an amateur photographer and a fellow human being, I am honored to have been able to organize an event that calls upon us all to unite and care for the world we live in.

-Niranjan M

Batch 2020



gallery





DAZZLING FACES

On the 17th of June, SnE Club launched the first ever "Face-Painting" competition where MBBS students of all batches along with nursing staff participated in teams of two to display their artistic talent by turning each other's faces into a living work of art hued with vibrant shades from across the spectrum.

Face painting is an art form which involves application of non-toxic paints to a person's face to transform it into a mural of blended colors and accents. The human face itself acts as an artist's canvas and the strokes drawn upon it are used to reflect several themes and ideas from traditional and ethnic to western and modern.

Adhering to the themes and principles of the SnE Club all the paints used were eco-friendly and non-allergic. The overlying theme for painting was "Environment".

The judges were Dr. Prashant Joshi, Dr. Afreen and Dr. Anjani Priya who gave us their valuable time and evaluated the participants under the criteria of creativity, neatness, color usage and overall adherence to a theme.

The immense creativity and diverse talents of the participants made it a really arduous task for the judges to decide upon just five winners.

With a narrow margin the final winners were

1st place - Deepika and Hansika
(from 2020 batch)

2nd place - Sandra and Sujji
(nursing students)

3rd place - Sumati and Bhrinda
(Nursing Staff)

4th place - Bipasha and Oitry
(Nursing students)

5th place - Neharika and Karthik
(from 2022 batch)



Dr. Bakshi and Dr. Vinod were an integral part of the event who stayed involved from the start to finish.

The SnE Club would like to thank all the volunteers who helped shape this event into a fun, enjoyable and light-hearted evening for everyone.

We would also like to thank all the participants for their amazing response and enthusiastic efforts put forward on their behalf which motivates us to conduct many more events in the near future, which not only entertain the audience but also provide an outlet for several budding artists to display their talents, overcome their timidness and hesitancy to express their talents and amaze us in the process.



-P.V.Vignnesh
Batch 2020

E-Poster Competition

Recently, I had the opportunity to attend a research conference on “National E-conference on plastination technique” organized by the department of Anatomy, Saveetha Institute of Medical Science and technical science Chennai on 3rd June 2023. I am very glad that I got to participate in the conference by submitting an E-poster on my ICMR-STC approved research project on the topic “Exploratory Study on Micronuclei and meta-nuclear abnormalities in Exfoliated Buccal Cells of COVID-19 suspected patients”, which was successfully completed with the help of my mentor Dr P K Sankaran, Associate professor, Department of Anatomy .

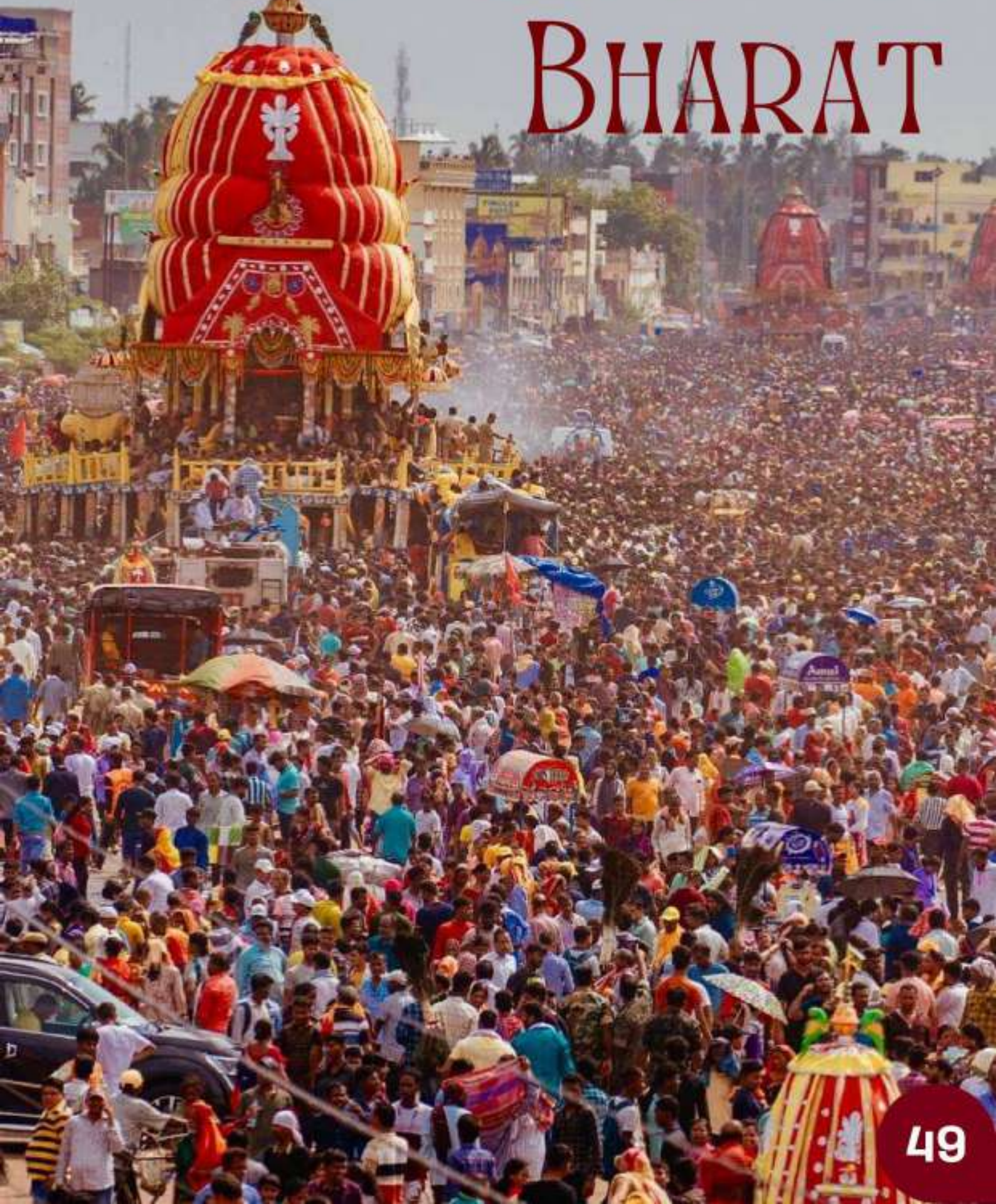
This conference brought together researchers and medical professionals from different parts of the world to share their knowledge and insights on plastination techniques. Plastination is a process that involves preserving biological specimens by replacing water and fat with plastic. This has been used in medical education, research, and exhibitions to provide a better understanding of human anatomy and physiology. Attending the research conference on plastination technique was a fascinating experience that provided me with a better understanding of this innovative and revolutionary technique. Apart from these sessions, the conference also had poster presentations where researchers presented their works. This being my first experience in making a poster on my research topic, I found it to be very engaging. I am very happy that my poster was one among the few selected posters during the function and I also won second prize for the same.

I thank my mentor Dr. P K Sankaran for his undying support and guidance during the entire research period and this E-poster conference, without whom I would not have achieved anything. I also thank all my co-guides who have helped me a lot in completing the research.



-Vishnu B
Batch 2020

DISCOVER BHARAT



RATH YATRA: A SACRED JOURNEY OF DEVOTION



Every year, millions of devotees flock to the sacred city of Puri in Odisha, India, to witness and participate in one of the most spectacular festivals of Hinduism—the Rath Yatra. The Rath Yatra, also known as the Chariot Festival, is an annual procession that takes place in the month of June or July, during the auspicious occasion of Ashadha Shukla Paksha.

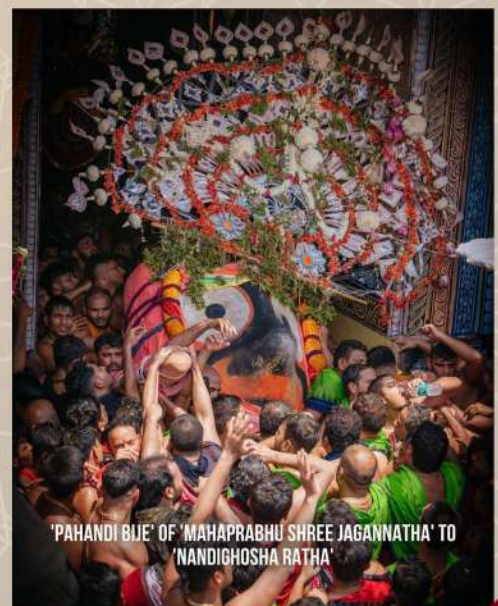


The festival primarily revolves around Lord Jagannath, an incarnation of Lord Vishnu, and his divine siblings, Lord Balabhadra and Goddess Subhadra. The deities are believed to embark on a journey from their temple, the Shri Jagannath Temple, to the Gundicha Temple, which is located approximately 3 kilometers away.

The chariots are named Nandighosa (Lord Jagannath's chariot), Taladhwaja (Lord Balabhadra's chariot), and Darpadalana (Goddess Subhadra's chariot).

Pahandi

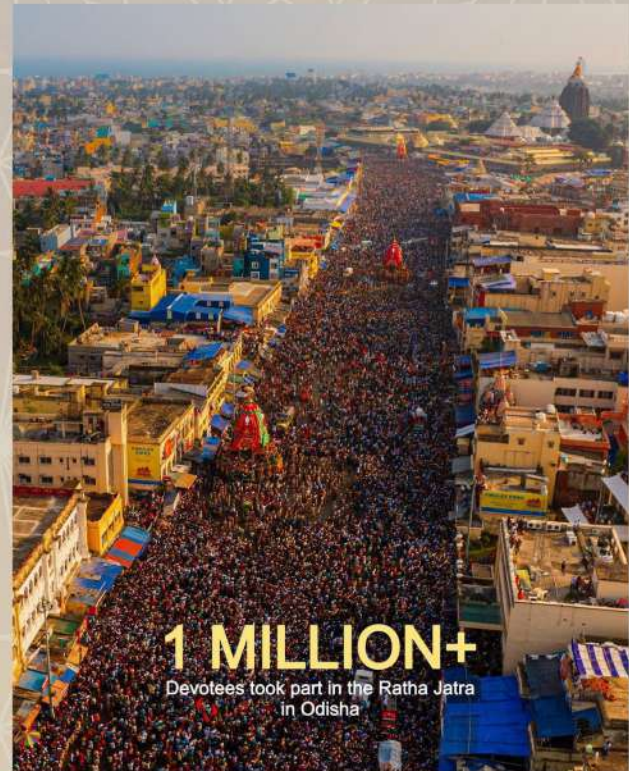
Amidst chanting of hymns, blowing of conch shells, and beating of drums, the idols of Lord Jagannath, Lord Balabhadra, and Goddess Subhadra are ceremoniously carried from the temple to the chariots.



Ratha Prabesh

The chariots are then pulled by thousands of devotees with ropes tied to them. The act of pulling the chariots is considered highly auspicious and is believed to cleanse the sins of those involved in the sacred endeavour.

The journey from the Sri Jagannath Temple to the Gundicha Temple (Mausima Temple) takes several hours. The distance covered is relatively short, but due to the massive gathering of devotees, the progress is slow and deliberate. Upon reaching the Gundicha Temple, the idols are ceremoniously brought inside and placed on the altar.



Gundicha Yatra

The deities stay at the Gundicha Temple for a span of nine days, during which devotees from far and wide visit to offer their prayers and seek the blessings of the divine siblings. This period mythologically signifies the stay of the deities at their aunt's house.

Bahuda Yatra

After the nine-day stay, the deities are brought back to the Sri Jagannath Temple in a similar procession. The chariots are prepared once again, and the idols are carefully placed



inside their respective chariots to commence the procession. The journey back to the temple is equally vibrant and spirited, with devotees pulling the ropes of the chariots, singing devotional songs, and expressing their unwavering faith in the divine.

Suna Besha

The deities are adorned with gold and precious jewels, and devotees gather in large numbers to witness this breathtaking spectacle. After this the ritual of Adharapana takes place and at the last the deities are taken back into the temple.

Ratha Yatra is not limited to Puri alone. The festival has gained popularity and is celebrated in various other cities and towns across India and even in different parts of the world, wherever there is a significant presence of the Jagannath cult. The Rath Yatra holds profound spiritual significance for the devotees. It symbolizes the journey of the soul back to its divine source, representing the eternal bond between the devotee and the deity. The act of pulling the chariots is seen as an act of surrender and devotion, where devotees offer their physical strength to serve the Lord. Apart from its religious importance, the Rath Yatra also showcases the rich cultural heritage of Odisha. The festival attracts tourists from all over the world. The Rath Yatra of Puri stands as a testament to the enduring faith and devotion of millions of people, it is a celebration of love, unity, and spirituality, bringing people from different walks of life together in a common bond of devotion. The grand processions, the divine presence, and the infectious enthusiasm of the devotees create an atmosphere that is truly unparalleled. The Rath Yatra continues to be a cherished tradition that keeps the flame of devotion alive and inspires generations to come.



*-Soumya Ranjan Parida
Batch 2020*

DISHA

What after MBBS?

Students interaction with
faculty of a department to know more
about the branch as an option for post
graduation

DEPARTMENT OF PHYSIOLOGY



Faculty Interviewed
SD : Dr Satish Dipankar
AMD : Dr Amudaraj D
AF : Dr Afreen Begum

Interview done by
Nandana Hegde
Batch 2021

Why and when did you choose Physiology as your main branch?

SD:-It was accidental. I wanted to do MD Medicine but then I was working as a medical officer and studying at the same time. I wasn't able to dedicate too much time to studying and then I chose Physiology for my rank

AMD:-I had a natural inclination towards basic sciences like physics and mathematics and the medical subject that comparably provides more scope for applying these is Physiology. Therefore, I opted to pursue physiology as my specialty.

AF:-I found Physiology most interesting since day one of my course. Moreover, after my under graduation, I felt the dire need to improve my understanding of the various branches of scientific medicine. To achieve it, I believed that pursuing a specialization in basic medical science subjects like Physiology will accomplish this.

How does your branch differ from the other branches?

SD:-Physiology is the Mother of Medicine. It forms the basis for understanding other subjects. Since it deals with basic science, it forms the foundation on which other subjects are understood

AMD:-Lots of applications of basic sciences like physics, mathematics and chemistry.

AF:-My branch is the humongous ocean, once you take a dive you will know what it treasures. It is diverse! As much as it seems ebasic, it is a stepping stone for clinical subjects. This is what makes it Physiology.

For whom is this an ideal branch?

SD:-It is suited for someone interested in teaching and research while also contributing to patient care by assisting other departments in patient care. The work-life balance is also pretty good.

AMD:-Anyone who loves to practice, share, contribute, and improve scientific medicine. People who are naturally inquisitive and interested in basic sciences will find it interesting.

AF:-Doctors who love teaching, research and clinical investigations, it is the best branch. Curious minds who need time to contemplate and explore your interests; Physiology has lots to give.

How is your department helpful to other departments regarding investigations and reaching the diagnosis?

SD:-We run clinical physiology labs and thereby assist other departments in diagnosing patients. Investigations such as Andrology, PFT, AFT, EEG, ECG, NCS, and HRV are done

AMD:-The Physiology department's diagnostic division operates five laboratories: Electrophysiology, Autonomic Function Testing, Pulmonology, Electroencephalography, and Andrology. These labs contribute significantly to diagnosis and treatment planning.

What is the main area of focus in the physio department?

AMD:-The Physiology department focuses on three main areas: Academics, Patient care, and Research.

AF:-Teaching undergraduate students is the integral focus at any given point of time of our department. Imbibing thorough knowledge of Physiology and its cognizant aspects into young minds is the crucial objective and we are extremely dedicated towards it. .

How do you think physiology as a subject and a branch is a keystone in building up any medico's career?

SD:-Physiology comes under basic science and its understanding is essential for any medico to become a good clinician. Apart from that, there is still a lot of research being done which is part of the career of any medico.

AMD:-It is obvious. Physiology knowledge is fundamental to the practice of scientific medicine. Its importance permeates all disciplines of scientific medicine.

AF:-Physiology is not limited to teaching; revolutionary advances it has made in reputed institutes are plenty. To explore the depth, interests, and erudite research minds, Physiology is the key.

What are the challenges that you tackle daily?

AMD:-Challenges in academics, including limited time for teaching practical physiology and the discontinuation of essential equipment and laboratory items. This has led to the loss of important physiological principles and techniques. In patient care, acquiring skilled support staff for the laboratories poses challenges.

Research encounters obstacles due to the limited availability and high cost of beachside equipment used in physiology studies.

What are the career options for a person aspiring to do MD physiology?

SD:- Apart from being a teacher and training students, a career in academia can also be built by doing research at the cellular and molecular levels. There are still many things that are not known and can be uncovered after high-quality research.

A career in sports medicine, Aviation medicine, Sleep medicine, or Yoga therapy is also possible options

AMD:- Fewer job opportunities, uncertain futures and less financial income have discouraged people. The main career option is to become a teacher in medical college with or without private practice. Full-time research positions are also available in a few centers. One of my friends has become a full-time IONM expert and doing well.

• **AF:-** 1. Can take up DM Clinical Physiology, and can be a consultant in many corporate hospitals undertaking IONM, NCVs, Sleep labs, EEG Etc.

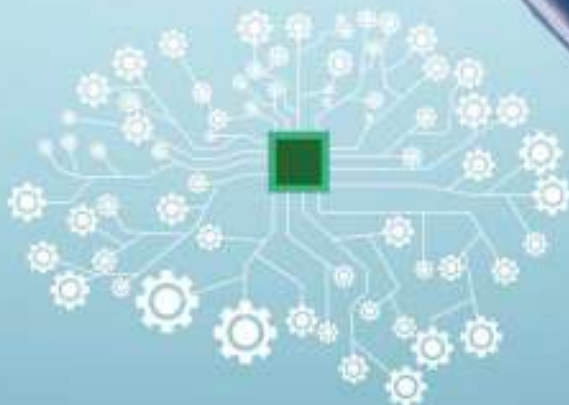
△ 2. Can be a senior research reviewer / Manager in many of the leading pharmaceutical companies.

3. Can be an ICMR scientist or undertake scientific research trials as a project manager for renowned organizations.

4. Fellowship in Sports and Medicine, Sleep Medicine, Space Physiology and Medicine, Molecular Biology Cell Culture, and Yoga are cutting-edge courses after Physiology post-graduation if one wants to venture.

CROSSWORD

A.I



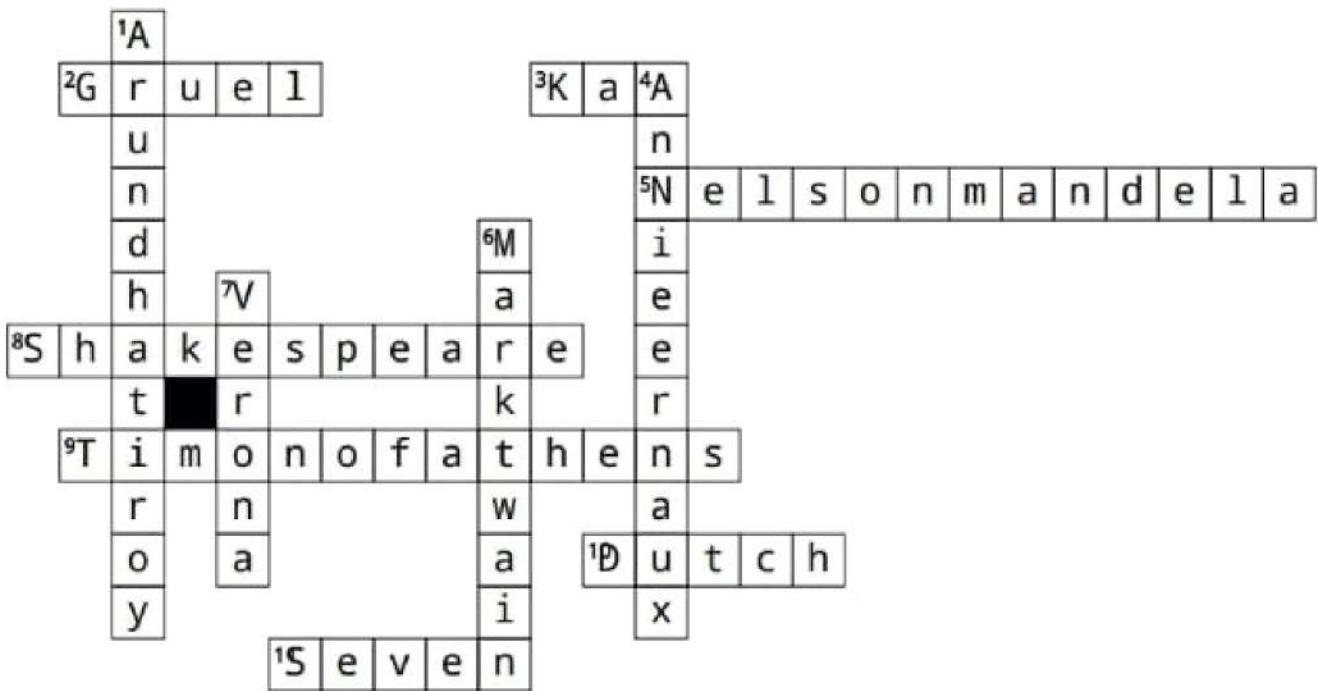
ACROSS

1. A SUBFIELD OF AI THAT FOCUSES ON ENABLING COMPUTERS TO UNDERSTAND, INTERPRET, AND RESPOND TO HUMAN LANGUAGE.
5. THE STUDY OF MENTAL PROCESSES SUCH AS "THINKING," "LEARNING," AND "PROBLEM-SOLVING."
9. THE CAPACITY TO REASON, UNDERSTAND, AND APPLY KNOWLEDGE
10. THE CAPACITY OF A MACHINE TO LEARN FROM EXPERIENCE AND IMPROVE ITS PERFORMANCE OVER TIME.
13. A SET OF RULES OR PRINCIPLES THAT GOVERN THE BEHAVIOUR OF AN AI SYSTEM
15. THE THEORY AND DEVELOPMENT OF COMPUTER SYSTEMS ABLE TO PERFORM TASKS THAT NORMALLY REQUIRE HUMAN INTELLIGENCE.
17. RELATING TO OR INVOLVING COMPUTER SYSTEMS THAT CAN PERFORM TASKS WITHOUT HUMAN INTERVENTION.
18. THE STUDY OF HOW COMPUTERS CAN PERCEIVE AND UNDERSTAND THE WORLD THROUGH VISUAL INFORMATION
19. A TYPE OF AI SYSTEM THAT USES ALGORITHMS TO IDENTIFY PATTERNS AND MAKE PREDICTIONS
20. THE PROCESS OF USING COMPUTER ALGORITHMS TO PERFORM SPECIFIC TASKS.

DOWN

2. THE CREATION OF INTELLIGENT MACHINES THAT CAN MIMIC HUMAN BEHAVIOR AND PERFORM TASKS AUTONOMOUSLY.
3. A TYPE OF AI SYSTEM THAT CAN ANALYZE AND INTERPRET HUMAN EMOTIONS
4. A METHOD IN AI THAT ALLOWS COMPUTERS TO MIMIC HUMAN DECISION-MAKING PROCESSES
6. THE STUDY OF HOW COMPUTERS CAN PERCEIVE AND INTERPRET SOUNDS LIKE HUMANS.
7. A TECHNIQUE USED IN AI TO MODEL THE BEHAVIOR OF A COMPLEX SYSTEM USING INTERCONNECTED ARTIFICIAL NEURONS
8. THE PROCESS OF EXTRACTING MEANINGFUL INFORMATION FROM LARGE DATASETS
11. A SUBFIELD OF AI THAT FOCUSES ON THE DEVELOPMENT OF SYSTEMS THAT CAN UNDERSTAND, GENERATE, AND PROCESS HUMAN LANGUAGE.
12. . A FIELD OF STUDY THAT COMBINES AI AND BIOLOGY TO CREATE BIOLOGICALLY-INSPIRED SYSTEMS.
14. THE STUDY OF HOW INTELLIGENT BEHAVIOR EMERGES FROM THE INTERACTION OF SIMPLE COMPUTATIONAL ELEMENTS
16. THE FIELD OF STUDY THAT FOCUSES ON THE DEVELOPMENT OF COMPUTER SYSTEMS CAPABLE OF PERFORMING TASKS WITHOUT HUMAN INTERVENTION

PREVIOUS CROSSWORD KEY



Across

2. Please sir, I want some more" Oliver Twist asks for this.
3. Python in Rudyard Kipling "Jungle Book"
5. Long walk to freedom" by
8. Where ignorance is bliss, it is folly to be wise.
9. Truman capotes in cold blood takes its name from this play
10. The diary of a young girl" in this language
11. Number of books in Harry Potter series.

Down

1. First Indian win man booker prize
4. 2022 Nobel prize in literature
6. Samuel langhorne Clemens pen name
7. Romeo and Juliet"set in this city.

OUR TEAM



COVER DESIGN

N Lakshmi Keerthana
Kirtika Jakhar

FACULTY MENTORS

Dr Deepti Vepakomma
Dr Suresh Vaikkakara
Dr Satvinder Singh Bakshi
Dr Shikha Yadav
Dr M A Bari Siddiqui

CONTENT EDITING & COMPILING

N Lakshmi Keerthana
K Shanmukh Krishna
Gourav J
Shriya T
Nandana H
Chaitanya Bhaskar

MAGAZINE DESIGN

Adithya Nath
N Lakshmi Keerthana
K Shanmukh Krishna
Kirtika J
Shriya T
Akhil P
Siddharth A

ALPAVIRAAM

✧ ✧ ✧ This is not an end to the ever expanding field of Artificial Technology, but we tried to build on what most of us wonder about but have vague knowledge of, thus bringing us to an end of this Alnlightening issue of Atman magazine.

The next issue is also an interesting one, but currently under wraps. We will be revealing the details soon.

It will be released on *1st September 2023*.
Last day for sending in your entries is *16th August 2023*.
Meanwhile, Stay Tuned, and Happy Reading.

With Love
Team ĀTMAN