



PEACE

Power of Electronics and Communication Engineering

Dept of ECE, Methodist College of Engineering and Technology, Abids, Hyderabad,

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Contribution from all the Faculty and Students of United ECE

MEDITATION REPLACES MEDICATION

Gautama Buddha was once asked "What have you gained from Meditation?" he replied "Nothing! But let me tell you what I have lost: Anger, Anxiety, Depression, Insecurity, Fear of Death and old age".

We all have heard Meditation is good for you; good in what terms is the question that boggles minds of many youngsters. The practice of meditation has been around for thousands of years, but recently scientists are unraveling the truth behind this seemingly simple practice. It involves a simple technique of focusing on a particular object generally breath, observing the mind wandering and returning to that object, commonly referred as Focused attention meditation.

Every morning, 20 minutes of meditation practice can clear the mind and body: has been shown to literally rewire brain circuits that boost both mind and body health. A Harvard study showed that eliciting the body's relaxation response could affect our genes in just minutes. They

found that meditating even just once, could dampen the genes involved in the inflammatory response, and promote those genes associated with DNA stability. Other short-term benefits include reducing stress and blood pressure and improving attention. It may even help us make smarter choices. By establishing a consistent practice we can experience enduring health benefits, associated with benefits to social aspects of our health, like boosting our mindfulness, empathy and resilience. It can also help us regulate our thoughts so that we're not so quick to judge, diminishing the potentially detrimental effects of stereotypes.

So, if you don't like medication, try meditation! An ounce of prevention is worth a pound of cure!!



Dr.N.H Shobha Reddy
HOD, ECE



OUR ACHIEVEMENTS THROUGH OUR STUDENTS

III ECE A & B students visited NSIC HYD ON 25 october 2018- A Govt. of INDIA undertaking. NSIC provides training to young entrepreneurs to establish their own small scale industry. They have advanced state-of-the-art technology labs in the field of Embedded systems, VLSI, IOT based projects. They have also has advance Solar Plant for training the students for taking up their Project as part of engineering curriculum.

III ECE students team of six students headed by K.ANURUOP and SAI PRADYUMNA have developed a WOMEN SAFETY SYSTEM AND TRACKING DEVICE using GPS and GSM Technology. It's a device where any women feel unsafe on roads or any other place; she can press a button wherein the GPS location will be sent to the nearby police and also parents. This work is shortlisted for INNOVATION INDIA by TEXAS INSTRUMENTS.

II ECE-B students , RATAN VIKRAM and M RUWAYD are selected as members of HYDERABAD YOUTH ACADEMY-Season VIII. They are actively participating to achieve four substantial development goals such as NO POVERTY, HEALTH AND WELL BEING , GENDER EQUALITY and CLEAN & AFFORDABLE ENERGY.

"WE NEVER MISS WATER TILL THE WELL IS DRY"

RADAR SYSTEMS AND ITS APPLICATIONS

RADAR is an Acronym "Radio Detection and Ranging". Radar is an Electromagnetic system for the detection and location of reflecting objects such as Aircrafts, Ships, Space crafts, Vehicles, People, and the natural Environment. It operates by radiating energy into space and detecting the echo signal reflected from an object target. The reflected energy that is returned to the radar not only indicates the presence of a target, but by comparing the received echo signal with the signal that was transmitted, its location can be determined along with other target related information. Radar can perform its function at long or short distances and under conditions impervious to optical and infra red sensors. It can operate in darkness, haze, fog, rain and snow. Its ability to measure distance with high accuracy and in all weather is one of its most important attributes. Conventional radars generally operate in what is called the micro wave region: operational radars works in frequencies ranging from about 100 MHz to 36 GHz, which covers more than eight octaves.

Applications of Radar: Radar has been employed to detect targets on the ground, on the sea, in the air, in the space, and even below ground. The major areas of Radar application are briefly described below.

Military:- Radar is an important part of air-defense systems as well as the operation of offensive missiles and other weapons. In air defense it performs the functions of surveillance and weapon control. Surveillance includes target detection, target recognition, target tracking, and designation to a weapon system. Weapon-control radars track targets, direct the weapon to an intercept, and assess the effectiveness of the engagement. A missile system might employ radar methods for guidance and fusing of the weapon. High-resolution imaging radars, such as synthetic aperture radar, have been used for reconnaissance purposes and for detecting fixed and moving targets on the battlefield. Many of the civilian applications of radar are also used by the military. The military has been the major user of radar and the major means by which new radar technology has been developed.

Remote Sensing:- All radars are remote sensors; however, this term is used to imply the sensing of the environment. Four important examples of radar remote sensing are (1) Weather observation, which is a regular part of TV weather reporting as well as a major input to national weather prediction; (2) Planetary observation, such as the mapping of Venus beneath its visually opaque clouds; (3) short-range below ground probing; and (4) mapping of sea ice to route shipping in an efficient manner.

Air Traffic Control (ATC):- radars have been employed around the world to safety control air traffic in the vicinity of airports (Air Surveillance Radar, or ASR), and en route from one airport to another as well as ground vehicular traffic and taxiing aircraft on the ground. The ASR also maps regions of rain so that aircraft can be directed around them. There are also radars specifically dedicated to observing weather in the vicinity of airports, which are called Terminal Doppler Weather Radar, or TDWR.

Law Enforcement and Highway Safety:- The radar speed meter, familiar to many, is used by police for enforcing speed limits. It is also employed detection of intruders.

Air Safety and Navigation:- The Airborne weather-avoidance radar outlines regions of precipitation and dangerous wind shear to allow the pilot to avoid hazardous conditions. Low-flying military aircraft rely on terrain avoidance and terrain following radars to avoid colliding with obstructions or high terrain. Military aircraft employ ground mapping radars to image a scene. The radar altimeter is also radar used to indicate the height of an aircraft above the terrain and as part of self-constrained guidance system over land.

Ship Safety:- Radar is found on ships and boats for collision avoidance and to observe navigation buoys, especially when the visibility is poor. Similar shore-based radars are used for surveillance of harbors and river traffic.

Space:- Space vehicles have used radar for rendezvous and docking, and for landing on the moon. As mentioned, they have been employed planetary exploration, especially the planet earth. Large ground-based radars are used for the detection and tracking of satellites and other space objects. The field of radar astronomy using earth-based systems helped in understanding the nature of meteors, establishing an accurate measurement of the Astronomical Unit (the basic yard stick for measuring distances in the solar system), and observing the moon and nearby planets before adequate space vehicles were available to explore them at close distances. Other Applications:- radar has also found applications in industry for the noncontact measurement of speed and distance. It has been used for oil exploration. Entomologists and ornithologists have applied radar to study the movement of insects and birds, which cannot be easily achieved by other means. Some radar systems are small enough to be held in ones hand. Others are so large that they could occupy several football fields. They have been used at ranges close enough to almost touch the target and at ranges that reach to the planets.



--N Raj Kumar, Asso.Prof, ECE

"There is NO time like PRESENT."

BE READY TO ANSWER

1. Please introduce yourself
2. Tell us something about yourself other than what is given in your C.V.
3. What additional studies/work/projects, other than the curriculum, have you done for the job profile you are looking for?
4. How have you prepared for this selection process?
5. Have you appeared for other companies so far? Which companies have selected? If you are already selected, why are you appearing for this job?
6. If you have not been selected by any company so far, what do you think might be the reasons? How are you making yourself selectable?
7. If you are not selected now what will you do?

--G.Mujtaba, Asst prof, ECE

GALLERY OF MONTH



MOVIE REVIEW OF MONTH

Zero is an upcoming 2018 buddy comedy film written by Himanshu Sharma and directed by Aanand L. Rai. The film is jointly produced by Colour Yellow Productions and Red Chillies Entertainment's Gauri Khan. It stars Shah Rukh Khan, Katrina Kaif and Anushka Sharma. The plot follows Khan playing a man of short stature, who falls in love with a superstar played by Kaif. Sharma portrays the character of a girl with intellectual disability.

The film was conceived by Rai in 2012, announced in 2016, and set to be released in the Christmas week on 21 December 2018. It marks the second collaboration of the lead trio, the fourth collaboration between Khan and Sharma and the second collaboration between Khan and Kaif. This marks the last film appearance of Sridevi, who died on February 24, 2018, shortly after completing the film.

The announcement was made by SRK and team *Zero* on January 1. In *Zero*, SRK plays a dwarf and VFX plays a major role in the film. Of the film's title and the release date, Aanand L Rai told Mumbai Mirror, "You can touch infinity even when you are zero, like Khan *saab's* (Shah Rukh Khan) character. December is a month when we celebrate life and what better time for a boy who celebrates that he is physically incomplete and in his incompleteness completes others as he travels from Meerut to New York. There is a beauty in incompleteness we are celebrating.

TECHNOLOGY :

Visual Effects (abbreviated **VFX**) is the process by which imagery is created or manipulated outside the context of a live action shot in film making.

Visual effects involve in the integration of live-action footage (special effects) and generated imagery (digital effects) to create environments which look realistic, but would be dangerous, expensive, impractical, time consuming or impossible to capture on film. Visual effects using computer-generated imagery (CGI) have recently become accessible to the independent filmmaker with the introduction of affordable and easy-to-use animation and compositing. Visual effects primarily divides into two groups .

1. Special Effects: It covers any visual effects that take place in live action, e.g. on set explosions or stunt performances.
2. Digital Effects (commonly shortened to **digital FX** or **FX**): It covers the various processes by which imagery is created or manipulated with or from photographic assets. Digital Effects often involve the integration of still photography and computer-generated imagery (CGI) to create environments which look realistic but would be dangerous, costly, or impossible to capture in camera. FX is usually associated with the still photography world in contrast to visual effects which is associated with motion film production. Digital FX also divides into different subgroups of professions . -- G. Mujtaba, Asst.Prof , ECE



SPORTS REVIEW OF MONTH

Sports are very important for one's life and participation in sports should always be encouraged. Participation in sports makes us active, healthy, fit, and also the development of our social and communication skills. The most common saying "Healthy mind lives in Healthy body" is so true because for a man to be successful his physical, as well as mental state, should be well. Sports are the greater source of recreation. Sports remove stress and provide relaxation to our mind and body. Participating in sports helps us to tackle the problems such as hardships, hurdles, and sudden miseries etc.

Sports improve blood circulation of our body too. Sports improve our efficiency also. Sports increase the team spirit quality in a human being. Sports teach us the value of time. It teaches us the value of a minute as well as a second also. Sports offer us a change from our mundane routine. Playing as well watching Sports are the great source of entertainment also. Sports are very important for kids and youth at their growing stage.

Sports are generally played as a form of a contest between two competitive sides that could be a team or an individual. There are various types of sports and games categorized as indoor games and outdoor games. Indoor games are the games which can be played inside the home such as Carom, Chess, Ludo etc and outdoor games are the games which we play outside the house such as Basketball, Badminton, Football, Cricket, Volley Ball etc. sports are very important for kids as they are helpful in the growth process of kids and provides good health and fitness. One must also play brain or mind games such as Sudoku, chess etc to increase the mental power and concentration.



--P Ramesh Babu, Asst Prof, ECE

STUDENT LIFE IN A NOTE BOOK

Think of a notebook with several pages. Each page in itself is just an open page. It is up to us to either scribble on it or write important points on it. Irrespective of what we do with the page, we can still turn to the next page. Till the pages of the notebook end, the freedom of choice to use or abuse the pages of the notebook purely rests on us. So fill the pages in the notebook with good things. Unlike a notebook, life will not give a second chance so, think twice before you do anything and do it perfectly well.

Note-taking is a developmental process that builds over time. Despite understanding the material clearly as it is being presented, it is difficult to remember that information for an entire unit or a chapter. Writing notes allows the student to go back and remember important ideas over time. In addition, note-taking keeps students active and alert during class and focus on the important information.

Here are a few tips for note-taking from the textbook:

Break the chapter into smaller sections or topics, and focus on understanding the material.

Find the main idea after you read a certain section.

Summarise the material in your head. This helps you to remember the concepts better and you become actively involved but learning the material.

Write facts, key concepts and explanations in your own words.

After reading a few paragraphs, think about what you have read. Then paraphrase briefly the important concepts,

Use plenty of space and write in logical order or in an outline format. Review your notes again to reinforce the material learned.

This is probably the most important part of taking class notes! After taking notes, it is important to re-read and review the information on a regular basis.



--V. REBEKAH, III

MAHATMA@150

ON THE SPECIAL OCCASION OF OCT-2nd LET US REMEMBER OUR "MAHATMA"

1.The Whole World Was His Family

Long ago when a reporter asked Kasturba Gandhi how many children, she had, she replied "Four, but she also replied that Bapu, my husband, has four hundred million." Now, you can think why she said like this because 400 million was the population of India at that time.

2.He Believed In The Dignity Of Labour

Once upon a time Lalaji (Lala Lajpat Rai) and Mahatma Gandhi were staying at the house of an ardent nationalist, Shiv Prasad Gupta. On their first day at the house of their host, Lala Lajpat Rai dressed new clothes after his bath and left his dirty and old clothes, in the bathroom. The next morning he found the clothes washed and neatly folded, on his bed. He was delighted. Lalaji had been travelling a lot for Freedom Movement at that time and he had many more dirty clothes with him. He politely asked Mr Gupta if he could put the whole lot of dirty clothes for washing. Mr Gupta said he certainly could. So Lala Lajpat Rai got all his clothes washed. When the time came for them to leave, the Lalaji said he would like to tip the servant who had washed his clothes. His host said it was not necessary but Lalaji insisted. Mr Gupta went in search of the man who had washed the clothes of Lalaji but he shocked to know that, the clothes had not been washed by any of his servants. Finally, a servant said, "It was the other man in the room with Lalaji who washed all the stained clothes. "I saw him hanging out the clothes to dry." Can you guess now, who had washed the clothes of Lalaji?.

3.We Are Here To Serve Not To Be Served

A sanyasi (Monk), Swami Satydev spent a day at Sabarmati Ashram and then expressed a wish to stay there. "I like the work you do here," he told Gandhiji. Gandhiji said he was welcome to stay at the ashram was meant for people like him, but added "You will have to put away your saffron robes, and dress like the others here." The Swami did not like that. "I am sanyasi (Monk)!" he protested. "I'm not asking you to renounce sanyas," explained Gandhiji. "Sanyas is a state of mind. Dress has nothing to do with it." If you wear your ochre robes here, people will not allow you to do work out of respect for your robes, instead, they will serve you, and that would be contrary to the principles of this ashram. We are here to serve, not to be served. The swami thought the matter over and decided to join the ashram. On another occasion, a man in an advanced state of leprosy came to the ashram and asked for shelter. "I've come to shed me skeleton here," he said. "I won't go even if I'm pushed out." "How can I say there's no shelter for you here?" said Gandhiji. "You're welcome." Nursed by Gandhiji, the man spent several days in the ashram before succumbing to the disease.

4.He Was Fearless

"I have no fear. That is why I'm unarmed. That is what ahimsa is about." When he visited the Northwest Frontier to meet his Pathan supporters, he was dwarfed by their height. They were tall and rugged, and all carried guns. "Are you afraid?" he asked them. "Why else would you carry guns?" They stared at him, stunned into silence. No one had ever dared to question their courage. "I have no fear," continued Gandhiji. "That is why I'm unarmed. That is what ahimsa (Non-violence) is about." The leader of the group, Khan Abdul Ghaffar Khan, threw down his gun, and the others followed suit.



These were the untold short inspirational stories of Mahatma Gandhi's life. I hope you have enjoyed this article. -- I Poorna Chandar, Asst.Prof, ECE

SAY NO TO PLASTIC

Plastic in any form or of any quality is harmful to health, period. In a perfect world you would want to avoid exposure to all forms of plastic. Considering plastic lurks in every nook and corner of our lives, banishing it completely seems unrealistic and impractical. But, we can start with more awareness about the little ways with which we can reduce our exposure to plastic. This can go a long way in reducing toxicity, hormonal imbalance, cancer, infertility, obesity and acidosis.

All we need to do is come back to the simpler lives once we lived. Break away from the habit of buying avoidable plastic bags. Carry a cloth/jute bags always. Bring awareness about the harmful effects of plastic to people around you. --R Navya III ECE B



WHY USING PLASTIC IS A BIG PROBLEM?

- It takes 1000 years to decompose into smaller pieces, which seep down into the soil and release chemicals, which eventually reach the water supply.
- Kills animals in water when they eat plastic thinking they are jellyfish.
- Not only animals in water but also, animals like cows, dogs etc consume it thinking they are eatables.
- Manufacturing of plastic is very harmful to the environment because non-renewable resources are used (petroleum and natural gas). The manufacturing process itself uses a toxic chemicals, pollutes the atmosphere and consumes energy.
- Apart from causing soil pollution, sewage blockages, cattle and mainly marine creature's mistake plastic for food directly or indirectly, blocking digestion and possibly causing starvation. About 44% of all seabirds eat plastic, apparently by mistake.

SHOPPING CULTURE IN EARLIER DAYS

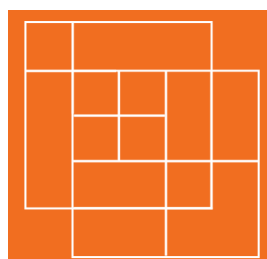
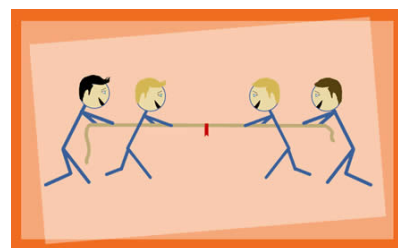
Before the advent of poly-bags, people did shop, buy things, bring eatables from the market, and did the same marketing as is done now. How did they do it? The raw material for the bag was decided by its usage. Cloth bags for lighter items, Gunny bags/jute bags for heavier goods. These bags were washable and reusable lasting for six months a year.

Let us be very clear here, we have only one Earth and only chance here. The Earth will not take this hands down. She is raging, and when her rage will hit us with full force, there will be no light of day for the human race anymore.

Congratulations **Reshma** madam, Wishing you joy, love and happiness on your wedding day and as you begin your new life together. --Dept of ECE

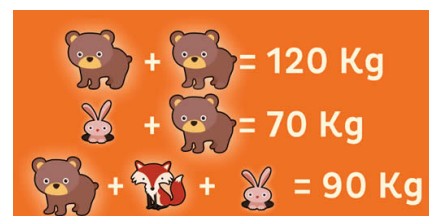
INTERACTIVE PUZZLES

Mike, Andrew, Kevin and Rory are playing tug of war. Mike and Andrew pulled Kevin and Rory easily. After that, both Mike and Kevin together managed to pull Rory and Andrew hardly. Then, both Mike and Rory played against Andrew and Kevin but neither of them won the game. Thus, can you compare them according to their strength?



How many squares are there in the figure?

Find the weights of the animals in the figure



First winner of Interactive Puzzle is honored in next issue

"A man known by the company he keeps" :: "Fortune favors the bold"