



# Crusade

CLARION CALL

Issue 87 | Volume 88



  
**March & April '20**  
**EDITION**

**Article  
Inside**



**1** My College *Diary* 

**2**  Mind, Brain, Education and **LEARNING**

**3**  What Creates a **Pandemic?**

**4**  **COVID-19 SAVES THE WORLD**

and more...

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## MY first day

On a bright sunny morning, the sun kissed the bluish cotton clouds and the rays traversing through the curtain gaps of my bedroom window made my eyes open. I had sleepless night as I was enthusiastic of my College Inauguration and I asked myself, "How will my first day be? Will it be memorable? Will someone tease me or will I have a joyful day?" too many questions circled throughout my mind. At morning I dressed up, took all my belongings and with my parents behind I reached the Elegant entrance of my college which had a beautiful temple in the front. Whispering to god that all my dreams and hopes should come true, I moved forward to collect my ID card from the seniors who were distributing it to all the fresher and directing us to move to the grand hall "Centenary Centre" which stood by its words. All the newcomers of all departments were seated along with their parents, all the dignitaries on the dais addressed us and explained us about the resource, experience, and their first day of college which was soothing to hear. My father being an Ex-serviceman, and Ex-student of the NPTC recollected his first day and accompanied me to the stage. I made a beautiful portrait of Dr. APJ. Abdul Kalam with his principle "Simplicity is the best" engraved below and requested the SGS team that I wish to deliver this to my college. They were very happy to see it and all of a surprise I was fortunate enough to deliver it to the chief guest who enquired about me and received it with a pleasant smile. (It is still hanging on the wall of our college library which still reminds me my first day). My father was asked to deliver a short speech of his thoughts, I noticed his eyes were filled with emotions standing on the same place after 35 years. All newcomers were asked to stand up for pledge "We will do our duty and be a responsible student". We were directed to seminar hall where our corresponding department HOD'S interacted with us and had college tour which was the end of the day.

## My Day at Classroom

Waiting for my college bus at 8:20am, I saw some people approaching me they are none other than



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my seniors. Had a very good interaction with them, entered the bus and reached college. I moved to CC hall as instructed by seniors, being a talkative person I introduced myself to the people nearby and made them friends. We were separated into groups and taken to seminar hall. When I entered the hall I got nervous as all boys were seated with a space in between, being the first girl to enter I was told to choose a place to be seated. I calmed myself and choose a place between two handsome boys. We had very good interaction, seniors motivated us to perform our talent like singing, dancing, drawing and also played games, had a very good fun, I thought that was my classroom. By afternoon all hostellers moved to have their meal, being a day scholar I badly missed the life of college hostel which is entirely different from school hostel life. I met few people during my lunch sitting by the side of CC hall I had my lunch. At that time I didn't know those few people will be the best friends in my life. All moved to their respective classrooms as it was told by our seniors in seminar hall. It was the first time interacting with boys of my age, we introduced ourselves. My classmates were the best of all, soon we became a family with a lovely faculty that no one got. We had our classes as usual, interacted with other department friends and days passed.

### My Best Part of College -NCC

I was always inspired by the Armed forces when my father used to share his experience as we used to watch Republic day on TV. Once I came across the notice board of B-block (My favourite block ever) of recruiting newcomers in NCC which was a dream for me since childhood. I felt I want to grab this wonderful opportunity and enrolled myself in, but later found that only two of the girl students of the first year have enrolled all others were second year. At first I found it difficult as I became the first day-scholar as well as only girl candidate from first year ,but I was confident that if I give up I couldn't achieve anything great in my life beginning the first step of my college journey. It was easy for me to convince my mother as my father supported in whatever decisions I make as he is the only reason behind my independence. NCC made me



know about my potential, what perfection really meant, discipline, unity, punctuality which you can get only through experience. In short it taught me leadership qualities and how I should live a life. My NCC seniors groomed my talent and skills through various competitions. I participated in National level drawing competition, various social welfare programmes where I learnt humanity is the supreme religion.

Days passed I entered second year of my college life where I have to pay attention on my core subjects as well as on NCC. I was informed by my NCC senior about the TSC camp to be held, but I always had interest on attending RDC. During my semester holidays I had to pack all my stuffs to attend my TSC selection camp which was for 10 days at Coimbatore. My senior accompanied me and one of my troop mate to the camp.

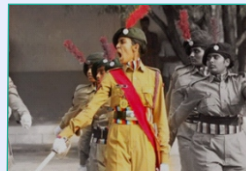
On the first day of my camp I felt NCC-MCET is always the best and different from others. I always had pride in my face on wearing my uniform and walked with head held high because No one's uniform was perfect as NCC-MCET'ians wore. NCC is the main reason why I chose Armed forces as my career option .The selection for next level was held and both of us got selected, we reported it to our senior. The camp was filled with fun as well as I learnt firing and various other skills and interacted with Armed forces personal, I got friends from various other colleges and my friends circle widened.



After attending the camp within 2 days I got my next selection camp. Consecutively, I attended 2 camps and both of us got selected for state level TSC Intergroup competition to be held at NCC training academy, Madurai. We made our best at the Academy, I won gold medal in one of the events and got direct entry for TSC camp at Delhi, my troop mate got entry for TSC phase-1. By the time, a month of my academics was completed. On returning to my college my friends were surprised to see my face terribly tanned, I told them ***“Beauty doesn't lie in face, I will retain it within a week but the experience I gained is unique and you cannot gain that.”*** The life you like to lead must always be unique so I created my own way. It was a crucial time for me I learned time management, I missed my classes and couldn't cope with any of the subjects being a day-scholar. I can never forget my friends, faculties, my troop mates and seniors who were of great supporting hand for me.



Independence Day celebrations was on our talent. At the same time my Industrial travel with my friends starting from my vain as Industrial visit was on August 15th, consoled myself that ***“You were weeks for the day”*** I gave my time in moulding myself in workshops and symposiums. All exams and got good grades. also got the **BEST CADET AWARD**.



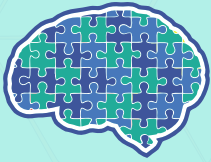
the way and we practised hard to show visit approached. I never went for a long childhood days, it was my wish. But all in I couldn't enjoy with my friends. I ***practising hard for past few best*** and I felt fulfilled. I spent technical aspects, attended prepared together for semester I secured proficiency 3rd and

### My Final Year

I applied for the post of president in my department association and got selected. I got good experience, shared my views, and motivated my juniors. Everyone were busy with their project work and placement as we were counting our college days. I prepared for my Entrance exam and SSB. I attended SSB at Bangalore and got conferenced out that still motivated me to prepare and practice more vigorously for the goal I want to achieve in life. I was in joy when I received ARUTHELVAR AWARD and proficiency 1st all in one go. Finally my hard work paid and still long way to go. I could not enjoy the final days of my college life because of COVID but I am sure my badge will always be remembered as the year spells 2020. With loads of memories and deep feelings in my heart I conclude my College diary.



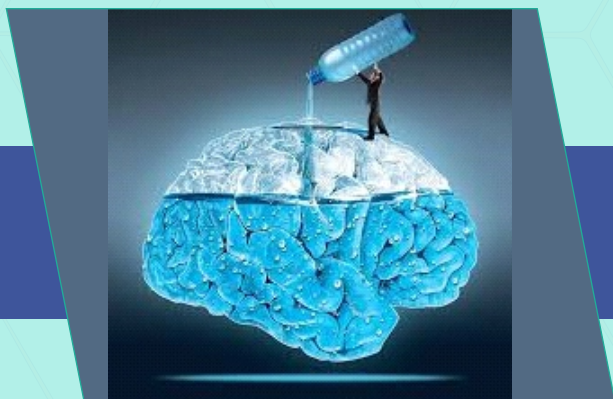
***“IF YOU DON'T SACRIFICE FOR WHAT YOU WANT, WHAT YOU WANT BECOMES SACRIFICE”***



# Mind, Brain, Education and **LEARNING**

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Mind Brain Education (MBE) is a trans-disciplinary field evolved from neuroscience, psychology and education. Neuroscience helps us to understand the physiology and anatomy of the brain and hence the mechanism of learning. Psychology helps us understand the mind and behaviours. Education consists of all the endeavours towards changing behaviours through learning.

I had the opportunity of learning some fundamentals in this unique field (MBE) while attending a master class conducted by Dr. Tracey Tokuhamma Espinosa. During the master class, SIX principles and 21 tenets of Mind Brain Education and their relevance to learning were explained. In this article I, try to present the SIX principles and how they impact learning and hence what does it mean to a teacher and to a student.

The human brain is around 73% water and consumes 20% of blood and oxygen in body. The brain is responsible for controlling, sensing, processing, actuating, regulating, feeling, thinking and more importantly learning amongst others. Implies brain requires lots of energy, water and oxygen, hence active learning environments should have plenty of availability of energy, water and oxygen.

A Delphi panel study used in qualitative research was conducted by experts between 2006 and 2017. It had 41 experts from 11 countries answering five questions on 80 concepts in four rounds. The panel came up with SIX principles which are true for all human brains and 21 tenets that are true but have degrees of variation. It also highlighted several Neuromyths, which Tracey has published as a book.

The **SIX principles** and what they mean to a teacher and to a student are as follows:

**Principle 1: Each brain is unique and uniquely organized. Human brains are as unique as faces. This implies, while the basic structure remains the same, no two human brains are identical.**

***For the teacher:***

One size fits all approach of teaching will not work. Hence accept diversity as a norm and appreciate it.

***For the student:***

Explore your own strengths when it comes to learning. Trying to imitate others is waste of time and effort.

**Principle 2: All brains are not equal because context and ability influence learning.**

***For the teacher:***

Understand the context of learning of each individual student. Students have their own unique abilities of learning. Hence do not expect all students to perform at the same level at the same instance of time in a context.

***For the student:***

Understand the context of learning. Eventually all will learn, but at their own instance of time and space. There is nothing that is impossible to learn.

**Principle 3: The brain is changed by experience. Prior experiences influence the brain and hence learning.**

***For the teacher:***

Understand the prior experience of each learner related to current new topic of learning. Diagnostics should focus on prior experiences. If possible provide experiences that are required for learning a new topic through foundation programmes, concept recaps, ice breakers etc.

***For the student:***

Past experience is crucial for learning. Hence learning for the present, a course, a topic etc. will result in spending more time when the prior experience/learning is going to be drawn from. Look for meaningful learning experiences at all times.

**Principle 4: The brain is highly plastic. Known as neuroplasticity, the brain continues to rewire itself as long as we live. But as we age the rewiring slows down.**

***For the teacher:***

Any new learning is going to result in rewiring in the brain. It will take time, energy and effort for the rewiring to happen. Hence it is possible for all students to learn but the wiring has to happen, hence be patient.

***For the student:***

There is nothing that cannot be learnt. There is no age constraint for learning in general. Continue to learn new things to delay the brain from slowing down with respect to creating connections.

**Principle 5: The brain connects new information to old.**

**For the teacher:**

Since new information is always connected with old, when introducing new concepts take the learner from known to unknown.

**For the student:**

While storing of information is important for learning, the information being stored is equally important. The information being taken to the brain for storage is to be carefully chosen. Always filter the unwanted information that is dumped on individuals now-a-days through social media.

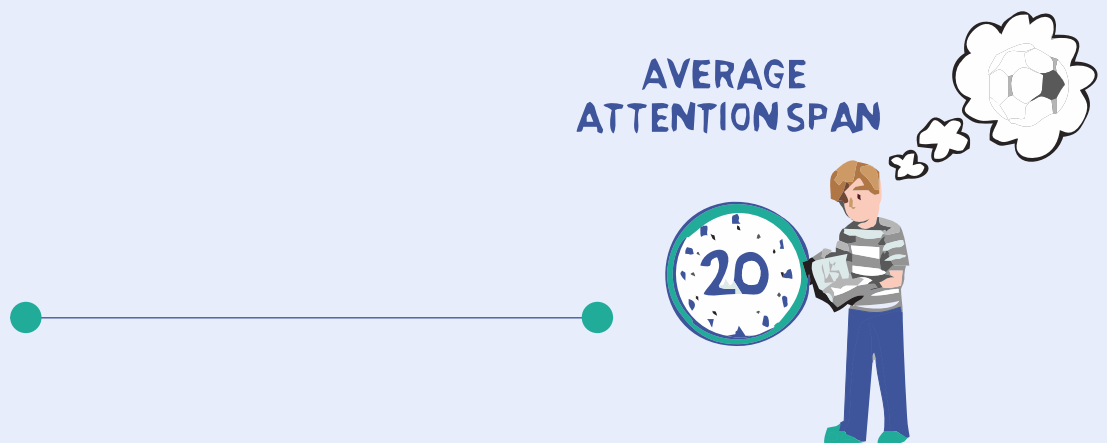
**Principle 6: Attention + Memory = Learning.** There is no new learning without attention and some form of memory. Memory is influenced by quality sleep, nutrition and physical exercise.

**For the teacher:**

The maximum continuous attention span in young adults is around 20 minutes. Break learning sessions into smaller sessions of 20 minutes or less. Include variety in the methods and tools used during instruction to gain attention repeatedly.

**For the student:**

Trying to simply memorize will store information in the working memory only and will not be available in the long term for retrieval for further learning or use. Hence for learning to be effective work on attention by being mindful and memory by having quality sleep, nutrition and physical exercise.



I am sure the teachers, students and others who read this article will appreciate MBE perspective of learning and will start exploring this wonderful trans-disciplinary field.





# What Creates a Pandemic?

If we think of anything that could wipe out millions silently the answer is not world war or any other natural calamity, it is the "Pandemic". The pandemic is a serious risk to human kind. It is not something new, the world has endured a lot of pandemics in the past. In 6th century a pandemic killed half of the world's population, in 14th century another wiped out half of the European population and more recently in 20th century a pandemic killed 5% of the world population in just 2 years. Pandemics leave a deep mark and permanent changes in civilizations and alter the very way we exist. It has been part of human evolution and it will always be.

From the learnings and experience from the past pandemics we have improved diagnostics, treatments and developed new vaccines and medicines. We have also formed global organizations like WHO to monitor global health. But wonder why we could not stop CoVid 19 becoming a pandemic in such an advanced 21st century with all modern technology – the reason is that our mother nature is the ultimate bio-terrorist. But she only uses the bio-weapon when she is disturbed and destroyed. In CoVid 19's case we disturbed the wildlife. Further CoVid 19 will not be the last pandemic.

Ever wonder why and how a pandemic evolves? Pandemics begin in the world invisible to naked eye. Microbes were likely the first living organisms on planet earth. Pandemics are caused by two major microbes – bacteria and virus. Interesting thing about virus is that they are supremely adapted to jump from one species to another. Therefore, viruses are the likely microbes responsible for pandemics in the future. More precisely "ZOO NOTIC VIRUS"

Estimates show that there are around 1.5 to 2 million viruses in wildlife which we don't even know about. Under normal circumstances the virus in animals do not infect humans. But in very rare circumstances through unexpected means a wildlife virus or animal virus can adapt, mutate and jump into a human cell. It is a rare event but once this happens the virus quickly mutates in the human cell to form a novel



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strain creating a fast spreading disease. Let us see an example of how H1N1 came to humans from animals and created the 1918 flu pandemic.

A century ago, in US at a farm there were pigs and birds domesticated. Birds had bird flu caused by an influenza virus – it is quite common in birds, geese and ducks for centuries. The person in the farm had a different influenza virus that caused common seasonal flue in humans for centuries. The virus in birds are not adapted enough and cannot jump to humans and the same goes vice versa, thus they could not infect each other species. Interesting part is that the two viruses can infect pigs. Under a spontaneous uncertainty the two-virus combined in one cell of the pig and emerged as a new zoonotic virus H1N1 that could infect humans, pigs, birds, geese, ducks etc. Unfortunately, in humans it evolved into a pandemic mainly due to movement of people throughout the world as a result of world war 1 prevailing at that time.



Thus, it is clear that a novel zoonotic virus can emerge anytime. Provided that world has become globalized and air travel has become cheaper a zoonotic virus can create a pandemic like CoVid 19 easily. The only weapon against the pandemic is preparedness and readiness. Of course, vaccines are important but it needs some time to develop it. Before that our humankind has to be vigilant and ready to curb such zoonotic viruses before it creates a pandemic in future.

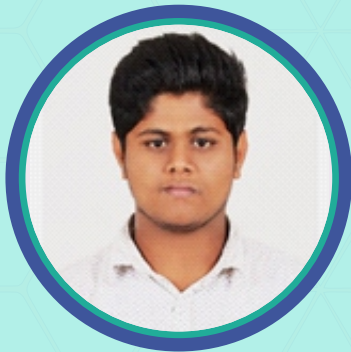
## “ P a n d e m i c

is not a word to use lightly or carelessly. It is a word that, if misused, can cause unreasonable fear, or unjustified acceptance that the fight is over, leading to unnecessary suffering and death.”



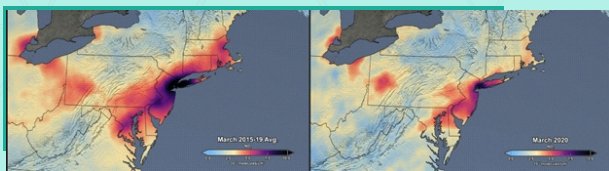
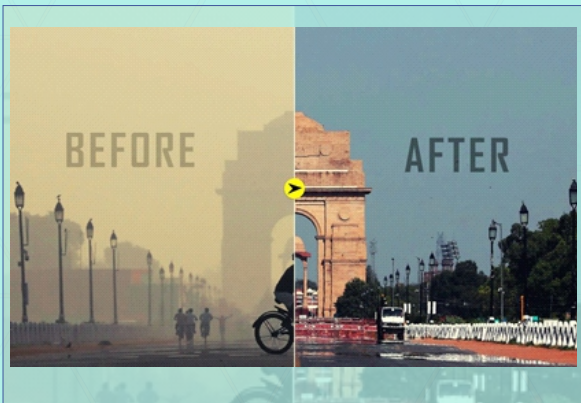
COVID-19

# SAVES THE WORLD



**MANOJ K SRIIVARDHAN**

II Automobile Engineering



(Image: © NASA)

**THE COVID-19** pandemic is scaring the whole world today since the virus does not know geographical boundaries irrespective of where it started.

More than 17,77,515 people are infected and nearly 1,08,862 people dead and the count is increasing day by day. In the fight with this virus, the world is under lockdown. People are self-distanced. Now the usage of transportation is reduced, factories and companies are closed.

### How this killing VIRUS saves the world?

The pollution due to tailpipe emission from an automobile is enormous before the spread of COVID-19. WHO estimates that around 7 million people die every year due to inhalation of carbon-dioxide. The polluted air leads to diseases such as stroke, heart disease, lung cancer, chronic obstructive pulmonary diseases and respiratory infections, including pneumonia, etc. After measures were taken to halt the spread of the COVID-19 virus, the Copernicus Atmosphere Monitoring Service (CAMS) monitored reduced levels of PM2.5(IN CHINA) likely linked to the precautions as per the Atmosphere Monitoring Service.

NASA's Aura satellite shows less air pollution over the Northeast United States in March 2020 compared to average values for the month of March between 2015 and 2019.

The ozone layer in the Antarctic region is healing at the same time a new ozone hole is opened up in the arctic region. If this becomes a regular feature, life will not be able to survive on our planet. The solution is reduction of pollution through adoption of electric mobility for transportation, solar power, wind power, tidal power utilization as opposed to fossil fuel, only these measures can reduce pollution in the air and save life. For now it is imperative that we follow the rules of lockdown and ensure we break the virus chain to go back to normalcy as closer as we can.

**Stay safe. Turn our world  
into a better place to live in!!!!**

# Lessons of Lockdown

This is an unprecedented situation in which the entire world is gripped into. Never in our wildest dreams would we have dreamt that a single cell organism will make us all dance to its tune. Man has been in the height of his arrogance that he is the superior being on earth who can persecute the nature as per his whims and fancy. The nature today has reached its breaking point of tolerance and has turned the table on human beings. A righteous minority have always been cautioning the megalomaniacs in power to mitigate the abuse of nature, which fell into deaf ears. Today they are regretting their dismissive approach while the nature is relentlessly pulverizing the human race.

This out of the normal predicament, is bringing clarity to the solid facts which have been obscured thus far by human hubris, that the real heroes and avengers of earth are not matinee idols or any imaginative larger than life characters on the silver screen but the Doctors, Nurses, Paramedics, Police personnel, Hygiene Workers. Who are selflessly serving to protect and laying their life down in a bid to save the human race. They deserve all the respect, worship and fanfare with which we have been flourishing and celebrating the shadow heroes hitherto. It is saddening to learn in some part of the country people are behaving indifferently to these heroes who selflessly sometimes even sacrifice their life fighting against the pandemic.

It is moments like this that gives us abundant time to think that life can still progress without the fast foods, cinema, malls, alcohol, etc which more harms than good to the body. All the myths that America is the toughest nation, Britain, Italy, Spain, France, Germany all developed nations which have a robust healthcare system and people there are sensitive to hygiene, are all fading away. The pandemic has changed our perspective on popular views and also our lifestyle to some extent. Even after the lockdown period, the unbeaten virus will change the way we all co-exist at workplace, hospitals, temples, shopping places etc, whether we like it or not social distancing will become the order of the day until an antidote or vaccine against COVID is discovered. Vehemently keeping the humans inside the house for significant

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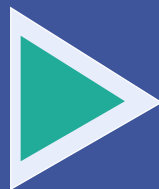
period of time has no doubt resulted in mitigating the pollution of all types. Keeping the humans out of the streets has resulted in animals reclaiming their rightful space and liberty.

The earth is on maintenance and human race is compulsorily locked inside which is resulting in unimaginable transformation of the globe due to reduction in water, air, and sound pollution. There is absolute peace prevailing everywhere. Once there were times the moment you open the TV News Channels you are bombarded with news about countries fighting between each other in the name of religion, differences among ethnic groups, oppression of minorities, natural resources dispute, trade warfare, if this is not enough, simply as show of strength to boost one's ego. All have taken backseat today since the whole world is fighting a common enemy called Corona. Thus far we were all divided by our own ego for trivial reasons. The nature is bringing back the unimpeachable moral into human DNA which we will hope will revive the nobility and make this world an abode of peace.



### Madras Presidency

## Lesser Known Fact



Three century old Ivy League of school, Yale University was named about Elihu Yale, the first Governor of Madras during the British Raj in 1639. He was also a successful merchant during his stay in Madras Presidency. After his retirement he packed back to England the wealth he swindled from India. He subsequently funded the development of Yale University, with the wealth he made from Madras. The university was named after him since 1718 for his generosity. What needs to be realized and felt proud about is, a globally distinguished University has the contribution of Madras Presidency.



# International Women's Day 2020



NIA Educational Institutions, Pollachi celebrated the august moment of International Women's Day 2020 through Yuvasakthi, a Forum for Women on 07th March 2020 at 10.00 am in MCET-NPTC campus with its magnificent stature and grand to commemorate the valiant deeds and honours of women earned through plethora of hardships.

It began with a welcoming note by Selvi T. Vishalakshi, III year, Textile Technology, NPTC. Mrs. K. Durgalakshmi, Asst Professor, MCET presented the annals of women achievement and awards in the form of annual report. The ceremony was honoured by the presence of the Co-ordinator of Yuvasakthi Forum, Thirumathi Rukmani Ramasamy. Among other dignitaries present were Dr. C. Ramasamy, Secretary, NIA Educational Institutions, Principals of MCET and NPTC, heads of various departments, professors, Mr. A. Chinnasamy, Administrative Officer, NIA Schools, Head Masters of NIA Schools and students, Mrs. M. Sabarinithya, President of Unjavelampatti.

Yuvasakthi Forum was found and inaugurated by Arutchelvar Dr. N. Mahalingam and Shrimathi Mariammal Mahalingam on 08th March 2004 with a view of identifying and venerating the women community for their tireless achievements in various fields and bestowing awards and prizes. Every year on this occasion, a woman with multi-talented competency is bestowed with YuvaSakthi Award for the outstanding contribution in their fields. Moreover, the needy girl students of NIA Educational Institutions are identified and given with monitory assistance in the form of scholarships based on their educational acquisition and family background. Now Yuvasakthi forum is strengthened itself with an endowment of 85 lakhs and in future it is raised up to be one crore. Through the endowment of Yuvasakthi forum, every year a girl student is adopted, and support is rendered till her placement.

Selvi. B.Santhiya, III ECE, NPTC introduced the Chief Guest to the gathering. This year Mrs. M. Revathi, Founder, INSPIRE, Coimbatore was recognised for her



outstanding contribution to the farmers to reclaim land and livelihood presented with YuvaSakthi Award by Thirumathi Rukmani Ramasamy.

In her acceptance speech, she elucidated her life and career where she started as a school teacher transformed into a pioneer in Organic farming and in reclaiming agricultural lands destroyed by natural disasters. Her work has touched more 12, 00,000 farmers to reclaim land and livelihood. She illuminated the young minds with her experience as a bird's watcher transmuted into bird researcher and involvement in changing the philosophy of farming in many parts of India-to switch from industrial to Eco-friendly sustainable farming.

This was followed by the prize distribution ceremony, where dignitaries on the dais gave away the scholarships and awards. 18 girl students of NIA schools, Polytechnic College and Engineering College are identified and provided with scholarship and Gold coin with worth of 3.10 lakhs on merit cum means basis. And also they distributed the prizes to girl students and teachers for their participation in various competitions.

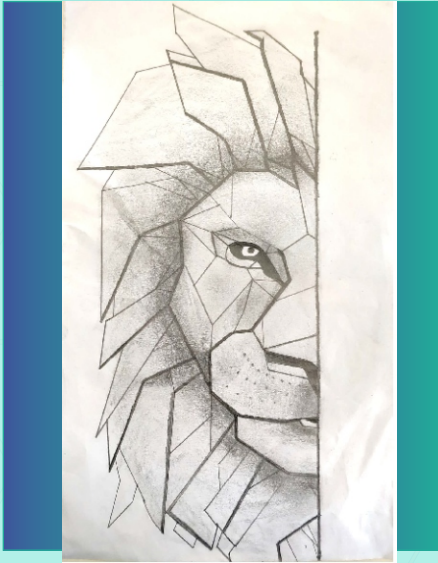
Vote of thanks was proposed by Selvi S. Santhiya | ECE, MCET.

The function concluded with a colourful and vibrant cultural fest by Kasturba Gandhi Oral School Coimbatore students, and it was a visual treat for the audience. NPTC and MCET girls performed various forms of dance and yoga. The function culminated with the national anthem.





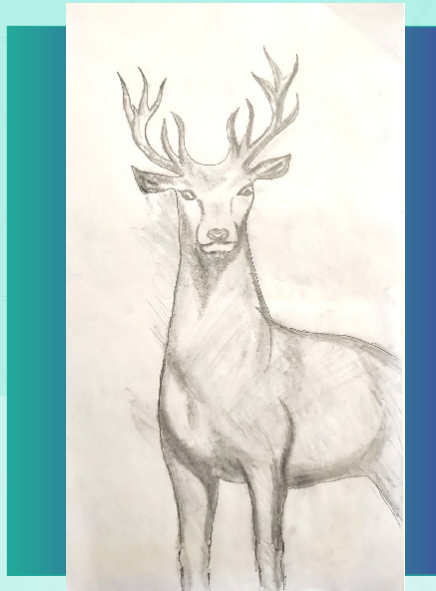
# Pencil Sketches



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# Automatic Hands Free Sanitizer

Dr. MAHALINGAM  
**MCET**  
COLLEGE OF ENGINEERING AND TECHNOLOGY  
Enlightening Technical Minds Estd. 1998  
An Autonomous Institution  
(Since 2011)



## Mayon Technology (An Incubatee of CIBIE)

Founder : Manoj Srii Vardhan, Final Year Automobile

CIBIE congratulates Manoj Srii Vardhan for his efforts to respond to the PM's clarion call and develop a product to fight Covid-19.

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