"ELECTROCRATS' 19"

EEE STUDENT'S FORUM

NEWSLETTER

12/2ND ISSUE, APRIL 2020

EDITORIAL

Dear Friends,

It gives us great pleasure and pride to be given the opportunity to publish department newsletter for the year 2019-20.

Action embodied in one's effort is the real key to happiness. There is no success and resultant happiness without action. What is more-you can derive satisfaction and happiness in having done your best. In spite of the tight schedule, the students of EEE Department have made this newsletter a reality by sharing their creativity, thoughts, general and technical knowledge.

Our sincere thanks to our management, Founder President, Dr. N.M. Veeraiyan, Director, Dr. Rajesh for providing us the necessary facilities. Our special thanks to our ever vibrant Principal Dr. R.Ramesh for being the mainstay throughout our journey. We are grateful to our HOD, Ms.Monica P Suresh and all our faculties for their constant support

Editorial Board

Principal's Message

Iam very glad to note that the department of Electrical & Electronics Engineering is releasing their newsletter for the academic year 2019-20.The department newsletter brings out the activities, achievements and creativity of the students in the engineering aspects

The newsletter realistically connects the students, staffs, industries and institutional interaction. This newsletter contains various information about seminars, workshops, industrial visits, colloquium and Co-curricular activities. We aim at providing outstanding learning experience for all the students by conducting various activities in the student's forum to enrich their knowledge in different spheres. It is rewarding for us that each year we see our students develop and gain the confidence that will serve them well in life and work. I congratulate the editing team of this newsletter for their efforts and wishing them all the best!!

Dr. R. Ramesh

Principal

Vice Principal's Message

While we march forward towards our goals, we should look back to recollect what we have already done. We should also be aware of what we are doing at present and how we are doing it. We should also bring out a plan for the future. Newsletters exactly do these things. Bringing out newsletters train students in collecting, correlating and disseminating information and ideas.

Iam happy that Electrical Engineering department is bringing out the newsletter. I wish the outgoing students a successful career and a bright future.

Dr.R.Senthil Kumar

Vice Principal

HOD's Message

Iam very pleased to announce that the EEE student's forum is releasing its 2nd issue Newsletter for the academic year 2019-20. The Newsletter brings out a lot of information which is useful to the students. I do hope students are benefited and gain a lot of knowledge through this Newsletter. I thank the editorial team for bringing out such a creative and interactive Newsletter. My best wishes to the students to achieve great heights in all their endeavours.

Mrs.Monica P Suresh

Head of Department

LIVE FULLY SO YOU CAN DIE HAPPY

PRISCILLA QUEEN R, IVTH YEAR

Most people do not discover what life is all about, until before they die. While we are young, we spend our days striving and keeping up with social expectations. We are so busy chasing life's big pleasures that we miss out on the little ones, like dancing in a park on a rainy day with our kids or planting a rose garden or watching the sun coming up. We live in an age in which we have conquered the highest of mountains but have yet to master ourselves. we have tall buildings but short temper , more possessions but less happiness, great minds but a meaningless life.

Do not wait until you are on your deathbed to realize the meaning of life and the unique role you have to play within it. Too often people attempt to live their lives backwards, spending their days striving to get the things that would make them happy rather than having the wisdom to realize that happiness is not a place you reach but a state you create. Happiness and a life of deep fulfillment come when you commit yourself , from the very core of your soul, spending your unique talents for making differences in their lives. When all the clutter is stripped away from your life, its true meaning will become clear, to live for something for more than yourself. Stated simply, " the purpose of life is a life of purpose".

May your days be spent in work that is engaging on pusuits that are inspiring and with people who are loving. I'd like to leave you with the following words of GEORGE BERNARD SHAW, "this is the true joy in life, being used for a purpose recognized by yourself as a mighty one, being a true force or nature instead of a feverish little clod of ailments and grievances complaining that the world willnot devote itself to making you happy". I am of the opinion that my life belongs to the whole community, and as long as I live, it is my privilege to do for it whatever I can.

I want to be thoroughly used up when I die. For the harder I work, the more I live. I rejoice in life for its own sake. Life is a sort of splendid torch which I've got to hold up for the moment and I want to make it burn as brightly as possible before handling it on to future generations.

On a mother's day

BHARATH JEEVAN K T, IVth Year

Very close to my heart I keep,

The memories of the time I spent with my mom,

The games we played and the secrets we shared.

Even after so many years as two decades,

I'm still the old little girl,

Kidding on mamma's lap waiting to be pampered.

But as I begin my growth to womanhood,

I feel no fear, for you are near me to inspire.

My closest friend wherever I am,

My sole consoles at all bad times,

My greatest strength and pleasure,

Your very presence gives me contentment.

My only possession,

To you I'm indebted, my whole life.

Irreplaceable, my God in disguise.

Alexander Graham Bell Facts

Sanjay Kumar.G
III[rd] Year

- Alexander Graham Bell was an influential scientist, engineer and inventor.
- He was born on March 3, 1847 in Edinburgh, Scotland. He died on August 2, 1922 at the age of 75.
- He is widely credited with the invention of the first practical telephone.
- Bell's mother and wife were both deaf, this had a major influence on his work.
- He didn't have the middle name "Graham" until he turned 11 when his father gave it to him as a birthday present. He'd earlier asked to have a middle name like his two brothers.
- Bell became an excellent piano player at a young age.
- When he was 23, Bell and his parents moved to Canada.
- Bell studied the human voice and worked with various schools for the deaf.
- Bell experimented with sound, working with devices such as a 'harmonic telegraph' (used to send multiple messages over a single wire) and a 'phonautograph' (used to record sound).
- He worked on acoustic telegraphy with his assistant, an electrical designer named Thomas Watson.
- On February 14, 1876, Bell and an American electrical engineer named Elisha Gray both filed patents with the U.S. Patent Office covering the transmission of sounds telegraphically. There is debate about who got there first but the patent was awarded to Bell. A few days later he succeeded in getting his telephone to work using elements similar to those of Gray's water transmitter.

- Bell's first words with the working telephone were spoken to his assistant Watson and were along the lines of "Mr Watson, come here. I want to see you."
- Bell improved on the design and by 1886 more than 150000 people owned telephones in the United States.
- Bell also had a strong interest in other scientific fields, conducting medical research, searching for alternative fuel sources, experimenting with metal detectors, developing hydrofoil watercraft and much more.
- Famous Alexander Graham Bell quotes include: "Before anything else, preparation is the key to success."
- "A man, as a general rule, owes very little to what he is born with - a man is what he makes of himself."
- "The day will come when the man at the telephone will be able to see the distant person to whom he is speaking."

"The inventor looks upon the world and is not contented with things as they are. He wants to improve whatever he sees, he wants to benefit the world; he is haunted by an idea. The spirit of invention possesses him, seeking materialization."

WINDMILL

MONISHA , IInd year

Mankind been harnessing the wind's energy for many years. From Holland to traditional farms around the world, windmills were used in the past for pumping water through primitive irrigation systems or used to grind grain. Then, the wind turned large "sails" which were connected by a long vertical shaft that was attached to a grinding machine or to a wheel that turned and drew water from a well. Today's turbines - can utilize the energy of the wind to turn large metal blades which in turn spins a generator that manufactures electric power.

Electricity windmill turbines, unlike the machines of old, are mounted on very tall towers in order to capture the most wind energy available. At 100 feet (30 meters) or more above ground, wind turbines can take advantage of the faster and less turbulent wind. Turbines catch the wind's energy with their propeller-like blades. Usually, two or three blades are mounted on a shaft to form a rotor.

A blade acts much like an airplane wing. When the wind blows, a pocket of low-pressure air forms on the downwind side of the blade. The low-pressure air pocket then pulls the blade toward it, causing the rotor to turn. This is called lift. The force of the lift is actually much stronger than the wind's force against the front side of the blade, which is called drag. The combination of lift and drag causes the rotor to spin like a propeller, and the turning shaft spins a generator to make power.

In recent years, government have invested enormous amounts of (taxpayer) money in electricity windmill "wind farms" to generate electric power. The only problem with wind generated power is that when the wind stops, so does the generator and therefore the electric power production. Electric power cannot be produced and stored for consumption later. Therefore, wind power can only be counted on mostly when the wind is blowing at optimal speeds and only in locations where the prevailing winds are such that it makes economic sense to build these power plants and this may not be when and where the power is needed.

Stand-alone electricity windmill turbines are typically used for water pumping or communications. However, homeowners, farmers, and ranchers in windy areas can also use wind turbines as a way to cut their power bills.

Small electricity windmill systems also have potential as distributed energy resources. Distributed energy resources refer to a variety of small, modular power-generating technologies that can be combined to improve the operation of the electric power delivery system.

Electrical Safety

Kishore.B, III[rd] Year

Electrical Safety is the most important issue in the electrical industry. Electricity is an immediate and essential part of our daily lives, providing power for industrial, commercial and institutional power systems, communications and computerization in homes, offices and industrial plants. It's because electricity is so widely used in every aspect of our lives that every year people come into unsafe contact with electricity and are killed or injured by electric shocks, arc flash burns, and arc blast explosions.

This is because they either were not complelely aware of the relative hazards and did not properly understand the effects of electricity on the body or (as in case of electrical workers) they did understand but had accidental or negligent contact with electricity in high enough voltages to either injure or kill them. This makes electrical safety paramount, whether or not you are an electrical worker.

In every company, electrical safety starts with a company's commitment to the health and safety of all it's employees, electrical and non electrical workers. Electrical professionals need to receive periodic but regular training on the proper care, maintenance, inspection and utilization of the electrical systems in industrial, commerical and institutional locations. Safety programs are designed to make sure that electricans work within the guidelines of current Federal (OSHA and CSA), state and provincial, U.S. NFPA 70e and Canadian CSA Z462 regulations.

Electrical safety protection programs help employees and companies reduce the risk of personal injury and equipment damage due to operator error. These programs are designed to ensure that, under emergency conditions, the proper steps are taken to restore power in an efficient and safe manner.

In North America, various federal (OSHA, CSA), and state and provincial laws require that employers maintain safe workplace conditions and practices. This means that under the Occupational Electrical Health and Safety Act, employers, supervisors, and workers individually have legal responsibilities to ensure that all work practices are being conducted in a professional and electrically safe manner.

Electrical safety OSHA regulations govern hazards are addressed in specific OSHA standards for the general industry, shipyard employment, and marine terminals. OSHA standards, the Regulatory Agenda (a list of actions being taken with regard to OSHA standards), including Federal Registers (these are rules, proposed rules, and also notices), OSHA directives (these are instructions for persons deemed to be "electrical compliance officers"), standard interpretations (this means official letters of interpretation of the OSHA standards), and national consensus standards which are related to any electrical equipment hazards.

Electrical Safety Procedures are an essential part of any program. Electrical workers must know where the disconnect switches and electrical panels are located in the workplace so that the electrical equipment can be quickly de-energized when an electrical accident occurs. Posting the location of the electrical panel on servicing equipment is also a great way to enhance safety.

Lockout Tagout is a term that refers to specific electrical procedures that are designed to safeguard electrical employees from electrocution in the event of unexpected energization of electrical equipment and machinery during service or electrical maintenance activities.

The Electrical Safety Forum is designed to provide electrical workers and non electrical workers with the latest information about standards and regulations, products and services.