



ELECTROWRITE



A Newsletter From Dept. of Electrical Engineering, S.I.T

VOL 2 ISSUE 3

DEPARTMENT MISSION & VISION

Vision

To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

Mission

To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio-economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty

Message from the Desk of Mentor

It is with great pleasure and satisfaction for Electrical Engineering Department to bring out the News Letter, Volume 2 Issue III. A newsletter is an amalgamation of the events held in the departments and it plays an instrumental role in providing a greater ex-posure of the achievements accomplished by the students and faculties. This new volume of newsletter has been launched to give an opportunity to the students to craft and showcase their knowledge and skills and focuses on the technical advancements and achievements along with the recent trends in the field of Electrical Engineering. I wish all the very best in your endeavors.



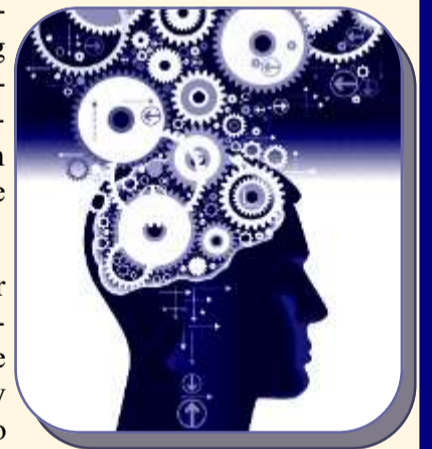
ENGINEERING BRAIN

- by Swasti Arya (4th Year, EE Dept.)

Engineering means innovations, inventions and creations. God himself has engineered human brains so beautiful and innovative that it is capable of creating countless technologies, to engineer more and more. Humans Beings are the most happening creatures in this world. We are meant to discover endless possibilities of making our lives more comfortable, easier and happier technologically in the most sustainable ways. From generating power to transmitting it till lightening up the world efficiently, building heavenly structures in very technical and beautiful ways, and connecting the world from earth to sky in an unseen promising network are some instances of the huge changes which we have made so far in our lifestyles, and there are still more to discover. Nature have always been creator's inspiration.

With the advancing technological era, everything has been changing. Storing the information's electronically are more easier today . Have you ever thought about storing everything which you are thinking right now, to store your brain memory somewhere? Sounds interesting, isn't it? Today scientists are in research to create an artificial brain that can think, respond, take decision, and keep anything in memory. No one has ever understood the complexity of human brain. It is complex than any circuitry in the world. So, "Is it really possible to create a human brain?" The answer is "Yes". People are now in research to create a virtual brain, called "BLUE BRAIN". If possible, this would be the first virtual brain of the world. Within 30 years, we will be able to scan ourselves into the computers. Is this the beginning of eternal life?

Virtual brain is an artificial brain, which does not actually the natural brain, but can act as the brain. It can think like brain, take decisions based on the past experience, and response as the natural brain can. It is possible by using a super computer, with a huge amount of storage capacity, processing power and an interface between the human brain and this artificial one. Through this interface the data stored in the natural brain can be up loaded into the computer. So the brain and the knowledge, intelligence of anyone can be kept and used for ever, even after the death of the person. Today we are developed because of our intelligence. Intelligence is the inborn quality that can not be created. Some people have this quality, so that they can think up to such an extent where other can not reach. Human society is always need of such intelligence and such an intelligent brain to have with. But the intelligence is lost along with the body after the death. The virtual brain is a solution to it. The brain and intelligence will be alive even after the death.



EVEN SEMESTER 2016 TOP PERFORMERS IN UNIVERSITY EXAMINATION

2ND YEAR, 2nd SEMESTER : MS. SNIGHDHA DAS

3RD YEAR, 2nd SEMESTER : MS. SATARUPA MUKHERJEE

4TH YEAR, 2nd SEMESTER : MS. NEELU KUMARI

Mr. SOUMALYA HOM ROY GOT HIGHEST DGPA— 8.97

A 'CAMINAR' ON THE RECENT INNOVATIONS

- by *Abhijit Das (3rd Year, EE Dept.)*

A day by day we are growing up. A day by day technology is spreading its arms. A day by day the world is becoming more advance. Without technology development is impossible. Let's have a view on some recent technologies and products which almost knocked everyone's eyes in last few days. Some technologies that made us pleased, that forced everyone to tell "WOW".

Here is something to lift your spirits : A cup that can hover :-

What can be better than a drink in your hand. How about a drink that can levitate? It's not a magic. It's something called ELECTRO MAGNETIC SUSPENSION. A wireless block & special cups with magnetic bases create a magical illusion of a drink that hovers like a hummingbird.



Dubbed as "LEVITATING CUP", the gravity defying effect is purely aesthetic and that's exactly the point according to the creator Joel Paglione. If this is used in restaurants, bars, they can make their appearance more attractive. If we think for domestic purpose it can enhance the dining experience. Now the question is what makes the cup a floating object? The thing is called magnetic force. The magnetic forces are playing between the cup small electrically powered base.



Magnets in the cups bottom & magnets in the base repels each other, while electricity in the base interacts with the magnetic field, creating a state where the cup is stabilized & suspended in the air. Paglione said he initially created a wired base for the floating cup but quickly realized that a wireless design is more practical. This is the first ELECTROMAGNETIC SUSPENSION SYSTEM to offer a wireless option. The base lasts up to 8 hours on a full charge, allowing users to transport their suspended drinks across bars or from room to room. It might take a little practice to perfect how to set your drink down on a invisible surface, but once the cup is in place, it balances well, even while being carried, Paglione said. In recent years, so called liquid nitrogen cocktails-drinks are served in glass with liquid nitrogen to create cloud of vapor-have risen popularity & are featured in many celebrated water holes. So there would seem to be an eager audience ready for a little more "WOW" with their drinks.

FRESHERS' S WELCOME(VITAJTE 2.0)

Fresher's day was celebrated on 5th Sept 2016 in a very colorful way. 2nd year students organize this day to welcome their juniors They organize a very good cultural program by performing a drama, song, dance, recitation. As per the juniors cultural activities they selected Mr. and Ms. Fresher of VITAJTE 2.0.

Mr. Fresher : Sahil Rai.

Ms. Fresher : Anushka Roy



TEACHERS' DAY CELEBRATION

"When We Think We Know, We Cease To Learn"

~ Dr. Sarvepalli Radhakrishnan

A teachers purpose is not to create students to his own image but to develop students who can create their own image. A very good cultural program with a delicious cake cutting ceremony was organized by the students. A surprise event for teachers was ar-ranged by the students.



PUBLICATION OF WALL MAGAZINE

(GEN-EE-US)

We are pleased to announce that the 2nd Wall-magazine published by the students of EE department. It was inaugurated by Mr. J.B.Basu, HOD, EE followed by all the faculty & staff members on 05.09.2016. The theme of the wall magazine was Saint Teresa to remember the work and her sacrifice for the society. Her work inspired us to pay homage on her demise day.



EMERGING TRENDS IN SUB-STATION

- **Priyadarshi Chakraborty** (Assistant professor in Electrical Engineering)

UNITIZED SUB STATION (USS):

The unitized substation is a state-of-the-art-system which simplifies conventional substation design. USS is fully engineered factory built design, tailor made to customer needs. USS comprises of a single substation factory built package having transformer, HT and LT controls. The safety features and mandatory requirements are fully complied with. USS is a fit and forget technology, where the connections are precise, secure and totally enclosed. Hence the chances for failure, corrosion and losses are very less.

Space Saving & Cost Effective: Space to install USS is typically 10' X 10' which is approximately the space required for a car park.

Application: The USS can be placed in the basement or ground floor or on roof top of the high rise building.

Technical Highlights:

Dynamic Mimic: The status (ON & OFF) of both main & earth switch will be automatically indicated in the mimic diagram for triple pole gang operated load break switch.

Live Line Indicator: Specially designed live line indicators operating through Voltage Sensors for indication if the cable terminals are live or not.

Over Current & Earth Fault Protection: Unique O/C & E/F protection for Transformers controlled by Load Break Switch Fuse Unit.

The HV Compartment: It comes in two versions i.e. Vacuum Circuit Breaker RMU & H V Fuse RMU and load break switch.

The Transformer Compartment: The compact substation incorporates Distribution Transformer which is designed and made strictly as per IEC60076 and IS2026 specifications.

The LV Compartment: This compartment encloses the LV Distribution Board which is connected to LV bushing of the transformer. The LVDB can be designed to meet various application and requirements having:-

1. MCCBS and ACB
2. LV fuse switch units
3. Instrumentation and metering

Main Advantages Of USS:

1. Custom built design and suitable for constant mobility. This provides a high flexible power supply points without much difficulties.
2. Reduced Electrical losses as package substation can be provided in the center location of load.
3. Total economy in cost. Even site cable cost is minimized as the transformer is directly connected to LV switch board.
4. A high degree of safety and operational reliability is achieved by HT and LT switchgears and protective relays to avoid overloading.



ALUMNI SPEAKS

'Work is a very essential part of our life , you got to love what you do, till then keep searching and do not settled...Steve Jobs.

I was always an average student throughout my career. My WBJEE rank was around 8000 when I took admission in SIT in the year of 2004 which was not that good .But I was a guy with confident outlook. I was sure that I will surpass all difficulties and get a job before I pass out from college. I started my aptitude preparation from 4th semester itself with my room mate Arnab Guha (CSE, 2008 pass out , now project Lead in COGNIZANT and settled in USA). Both of us worked hard and completed all materials available in the market and internet and it was around 5th SEM. We were confident to clear any aptitude questions that come before us. Our heads were high with confidence.

We started interactive sessions with our seniors and talked to them on phone and started preparing for interviews. And in few weeks we were up and ready for campus interviews. It says hard and smart work pays off. I was selected in Wipro in the 2nd round and my roommate Arnab was selected in the 3rd round in Accenture. Now am working as a project Lead in Cognizant and he is working IIT's around me and trust me in many cases I surpass them with my work quality and capabilities , and when I look back my old days I feel it was my confidence that has taken me in this arena. My goals are clear and way to achieve the goals are even more clear.

I urge every one to close your eyes, realize what you want to do with your life, pull up your socks and dive deep in your mission.

With Love and Courage

Joydeep Sen. SIT EE 08 pass out

now.win09@gmail.com



DEPARTMENTAL ACTIVITIES:

PARENTS TEACHER MEETING:

An interactive session between the faculty and the parents of 2nd year students was organized on 15.09.2016. The main motive of this interactive session was to discuss the overall progress of the student.



AKSHAY URJA DIVAS:

On 20.08.2016 Akshay Urja Divas was celebrated by the students of EE to make awareness about the development of the renewable resources available in the country. The program was organized by EES.



ENGINEERS' DAY:

On 15.09.2016 Engineers day was celebrated by the students in the remembrance of the birthday of the legendary engineer Sir M. Visvesvaraya. The program was organized by EES.



WORKSHOPS/ TRAININGS/ INTERACTIVE SESSIONS

- ◆ Workshop on Motor winding and Home appliances by N.S.I.C (Govt. of India) — 01.08.2016 to 12.08.2016
- ◆ Basic Automation Training on PLC by SIEMENS - 05.09.2016 to 01.10.2016
- ◆ Workshop on MATLAB Programming - 01.09.2016 to 03.09.2016
- ◆ Training on HTML, Java script, CSS, Bootstrap by PCS Global - 23.09.2016 to 28.09.2016
- ◆ FSP Training by VISTA MIND - 16/08/2016 to 27/08/2016
- ◆ Basic Automation Training on PLC by INDWELL - 08.09.2016 to 10.09.2016
- ◆ Invited lecture cum interaction with chief manager of Siemens. - 24.09.2016
- ◆ One Day Industrial Visit at 33/11 KV Sub- Station - 27.09.2016
- ◆ Interaction with Alumni (Mr. Sujoy Das, EEE 2005 PO batch) - 19.08.2016
- ◆ Interaction with Alumni (Mr. Abhijeet Sinha , EE 2009 PO batch) - 09.09.2016



SUDOKU Solution



The renewed committee of the Electrical Engineering Society (EES), SIT for the academic year 2016-2017

Faculty Advisor — Mr. Kaushik Chatterjee, Asst. Prof, EE & Ms. Rubi Kumari, Asst. Prof, EE

President - ABHISHEK PODDER , 4th Year

Joint Secretary - KOUSHIK BARMAN , 3rd Year

Vice President - KABITA GUPTA , 4th Year

Joint Secretary - ABHIJIT DAS , 3rd Year

Treasurer - PRIYANKA DAS , 3rd Year

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Mousumi Basu Das, Assistant Professor, EE Department.

Rubi Kumari, Assistant Professor, EE Department.

Abhijit Das, Arkajit Fouzder, Anupam Datta. Student, 3rd Year, EE Department.

Projoy Roy, Singhdha Das, Debarati Pal, Student, 2nd Year, EE Department.