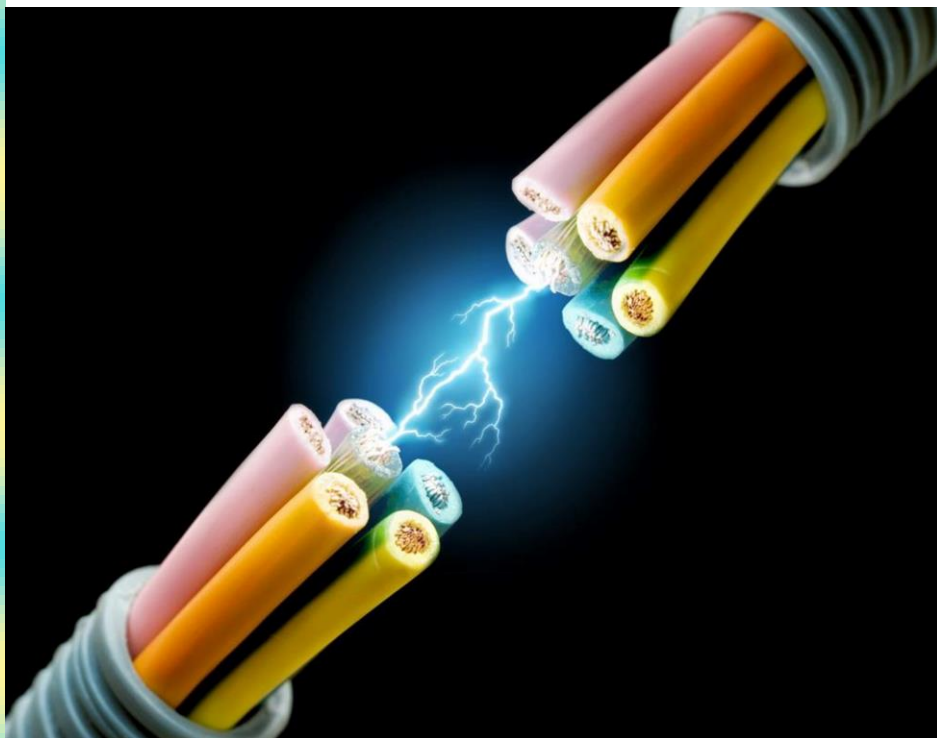## M.A.M COLLEGE OF ENGINEERING AND TECHNOLOGY, SIRUGANUR, TRICHY

DEPARTMENT OF EEE

Academic Year 2018 – 19

ELECTRICAL   ERUDITION

(Enlightens Engineers)

JUMPY JULY'18!

GUSTAV HERTZ

(Born 22nd July,1887)

Quantum Theory

VISIT TO VELMURUGAN INDUSTRIES:

Velmurugan industries are a heavy metal manufacturing industry located at Thuvakudi, Trichy. The safety of workers on the site was a matter of concern. *Mr.Vinoth Kumar* visited the site on 4th July 2018 and analyzed the various problems faced by the workers. Plausible solutions were provided for the improvement of safety at the work site.

HANDS-ON TRAINING ON INNOVATIVE ELECTRONICS

One-day training on developing innovative electronic circuits was organized by the department of EEE on 7th July 2018 at the Power Electronics laboratory from 8.45 a.m to 4.00 p.m.

The second year students were divided into groups and guided by a few nominated third year students. Each team developed the following ideas into projects.

- Home Security alarm
- Water level indicator
- Darkness Sensor
- Temperature indicator
- Portable Mobile Charger

The students had hands-on experience in building, analyzing and understanding

the working of the circuits. The event proved to be very useful in enhancing the practical knowledge of the students.

SOLAR WARRIORS – TAMILNADU ENERGY DEVELOPMENT AGENCY

The Tamilnadu Energy development agency organized a summer internship programme 'TEDA Solar Warriors' for TN students. The programme aimed at

making a difference in the society by making solar energy more accessible. As part of the programme each solar warrior along with an AE from TEDA were expected to visit various households and schools and convince them to install Solar panels on their rooftops. For successful canvassing of every 1kw solar rooftop a prize money of Rs.1000 was to be awarded. *S.Subash Chandra Bose of III year EEE* participated in the programme and visited various schools in Ariyalur district. He was able to install 25 kw along with the help of the AE thus making him eligible for a cash prize of *Rs.10,000*. At the end of the programme an objective test was conducted and he was qualified to receive an internship certificate.

GUEST LECTURE ON "OVERVIEW OF CONTROL SYSTEMS"

The department of EEE organized a guest lecture on the topic "Overview of Control systems" on 13th July 2018 at the Charles Correa Hall, MAMSA from 9.30 a.m. to 12.30 p.m. The guest of honour invited was Dr.Shobana Devi who is the head of the EEE department at the University College of Engineering, Ariyalur. Her areas of interest include Control systems, Power Electronics, and Electrical Machines.

The session was convened by Ms.Rakkammal, HOD/EEE and she introduced the guest with a welcome address. The lecture was attended by the students of III year EEE and II year ECE. Dr.Shobana Devi briefed the students on the basic concepts of signals and systems, methods used for block diagram reduction, steady-state analysis, transient response, root locus technique, controllability and observability. She also emphasized on the analogy between electrical and mechanical systems. The practical applications of all these concepts were also discussed. The students actively participated in the session by raising questions and doubts which were effectively responded to by the guest.

At the end of the three-hour lecture, the students were able to gain a clear understanding of all the basic concepts of control systems mentioned above. The session ended on a thank you note delivered

by Ms.Punithavathy Assistant Professor/EEE

GUEST LECTURE ON "SOLAR POWER GENERATION"

The Trichy local center of the Institution of Engineers organized a guest lecture on "Solar Power generation at the institution building on 17th July at 5.00 p.m. The lecture was attended by **Mrs.Punithavathy**, Assistant Professor/EEE , **Mohamed Ismail , S.Subash Chandra Bose and Mohamed Ajmal and Shanmuga Rajasekar**. The guest speaker **Mr.Arun K.Robeiro** briefed the gathering about the importance of solar power generation and its relevance in the present-day scenario. The lecture was very useful and interesting.

TOASTMASTER'S CLUB MEETING:

The toastmasters club meeting for the month of July was held on the 18th at the Trichy plus building, Thillai Nagar from 5.30 p.m. to 8.00 p.m. **Mr.Elanthamizh**, Assistant

Professor/EEE and **Ms.Keerthana J.** Assistant Professor/EEE attended the meeting as guests. It was a good platform to develop effective communication skills. The meeting consisted of various segments and in the first segment a few toastmasters showcased their presentation and public speaking skills. They were then evaluated by their respective mentors. During the next segment topics were provided and impromptu speeches were delivered by some of the guests. The usage of words and grammar by all the speakers of the evening was assessed. The meeting was finally concluded with a feedback session by the guests. The session proved to be very useful and all the guests were encouraged to join the club.

IEEE STUDENT BRANCH INAUGURATION

The Department of EEE inaugurated the IEEE student chapter and TESLA'18 Association of EEE on 20.07.2018 at the Charles Correa Hall at 11.30 a.m.

The Approval for opening the IEEE student Chapter was received during April 2018 and the same was inaugurated on 20.07.2018.

Mr. Prabhu G .Kumar, Co-founder and Managing Director of Logic Information Systems Inc. was the Chief Guest. He was an active member of many professional bodies like IEEE, ISTE, and IEI and is a well-established entrepreneur. The inauguration started with a welcome address by the Staff coordinator of IEEE Ms.Rajarajeswari , Assistant Professor/EEE. Dr.M.A.Maluk Mohamed, our director gave the presidential address. The Chief Guest inaugurated the student branch by handing over the approved membership to our Director. Mr.Prabhu G.Kumar delivered the inaugural address. He addressed the gathering on how he rose from being an employee to an employer. He also stressed the importance of co- curricular activities and how it helped him to shape his career. Then the association members were inducted by our HOD Mrs. Rakkammal. The

activities to be conducted by the association were briefed by Mrs. Punithavathy, Assistant Professor/EEE. The event finally ended with a vote of thanks by G.Tamizhmaran Final year/EEE.

GUEST LECTURE ON "OVERVIEW OF BMI AND AI APPLICATIONS TO HEALTHCARE"

The Department of EEE organized a guest lecture on "Overview of BMI and AI applications to healthcare" on 21.07.18 at the IT lab from 9.30 a.m. to 12.30 p.m. The guest speaker invited was Dr.N.Sivakumaran,

Professor, NIT, Trichy. The lecture was attended by the third year and final year students. The session started with a welcome address by Ms.Rajarajeswari Assistant Professor/ EEE. The guest was introduced by Mr.Rajasekaran Dean/Admin. The speaker briefed the gathering on the importance of biomedical instrumentation and its development in the country. He explained the use of instruments in the field of healthcare and their uses. The students were also educated on the general process of medical treatment and how each instrument plays an important role in diagnosis and treatment. The session was very interesting and the students raised their doubts which were clarified by the speaker. Finally the session concluded on a thank you note by **Mrs. Punithavathy** Assistant Professor/EEE.

COMMINGLE"-LANGUAGE PROFICIENCY SESSION

A language proficiency session-"Commingle" was organized by the Department of EEE for the second year students on 21.07.18 (Saturday).The main aim of the session was to inculcate letter writing and public speaking skills in the students. The three hour session was handled by **Ms.Rajarajeswari** Assistant Professor/EEE and **Ms.Keerthana** AssistantProfessor/EEE. During the first one hour of the session the students were trained in writing different types of letters like permission letters, job application letters and other informal letters. The students were enlightened on the various words and phrases they could use while writing letters on different occasions. The next session began by dividing the students into five groups, with nine members in each group. Topics relevant to the present day were given to each group as follows,

- **Man on Moon or Food for Man**

- **Startup India**

- **Will automation reduce Unemployment in India?**

- **Hype for Cricket in India**

- **Early birds or night owls.**

Each group was allowed to gather information along with their teammates for a few minutes. Group discussion was then conducted and each group was asked to present their topic. All the students were able to present their points effectively. After discussing the topic for a period of five minutes each member was asked to project their final viewpoint on the topic. The session was thoroughly enjoyed by the students and all the participants were appreciated.

A THREE-DAY WORKSHOP ON "REALIZATION OF EMBEDDED APPLICATIONS USING ARDUINO"

The Department of EEE organized a three-day workshop on "Realization of Embedded Applications using Arduino" in association with Pantech ProEd Pvt. Ltd. from 25.07.18 to 27.07.18 at the CS LAB-II , MAMCET. About 16 participants from other colleges and over 80 students from MAMCET participated in the event. The main objective of the event was to enhance the microcontroller programming skills of the students by providing them with hands on training using hardware.

On the first day of the session the students were given an introduction about embedded systems and their development in the real world. They were also educated on the uses of Arduino implementation in electronic circuits .After the brief introduction, the students were asked to install Proteus and Arduino software using their ID's provided .Following the installation the students were guided on using the Proteus simulation software. They were asked to develop basic circuits like 555 timer, sine wave generator and also design circuits for practical applications like LED blinking.

On the second day of the event the students were provided with Arduino UNO kits using which they learnt to develop circuits for LED lighting, Buzzer operation and displaying information on a LCD. The students initially developed the code for the required operation and then they were instructed to dump the code into the target hardware. During the afternoon session, the students were given the task of developing the code for displaying information on multiple LCD's and also creating a timer circuit.

On the third day, the students learnt the technique of developing circuits for real world applications. During the forenoon session they developed the code for determining the temperature of a gas and also detecting the presence of smoke in a room. They then linked the code to the hardware thus creating temperature and gas sensor circuits. During all the three days lunch and refreshments were provided. On the final day the event concluded with the distribution of certificates to the students by Dr.Rajasekaran,Dean/Admin.

UNNAT BHARAT ABHIYAN:

Unnat Bharat Abhiyan is a programme initiated by the Ministry of Human Resource Development ,Government of India for the upliftment of rural India. This scheme steered by IIT Delhi encourages educational institutes to adopt villages and provide

technical solutions for the problems faced by each of them. As part of the scheme, the village **Konalai** was adopted by the Department. **Mr.T.M.Navin Kumar**,Assistant Professor/EEE. and **Ms.Rajarajeswari** Assistant Professor/EEE visited the village on 27th July to take an initial survey of the place. They met with the village panchayat secretary Mr.Selvakumar and collected details about the basic amenities available in the village like the number of schools and colleges functioning, hospitals, market and sanitation facilities .They also met the village administrative officer(VAO) and enquired about the total area of the village, the agricultural, housing and waste land available and the level of water table in the area. With the details collected, further work is being carried out to identify the major problems faced by the village.

PALS EXECUTIVE COMMITTEE MEETING:

The first executive committee meeting of the PALS association was held at National Engineering College ,Kovilpatti on 27th July 2018 from 11.00 a.m. to 2.30 p.m. The meeting was attended by **Mr.Elanthamizh**. The meeting commenced with the introduction of the newly inducted members. The activities conducted in association with PALS during the past academic year were briefed to the council.The upcoming events planned by the council were scheduled in accordance with the academic schedule

PALS-INNOWAH INAUGURATION

The yearlong InnoWAH! event organized by the PALS association was inaugurated on 31st July through a webcast by IIT Madras at 10 a.m. The webinar was attended by **Ms.Keerthana J** along with 20 interested students belonging to all the

three years. The main features of the event were highlighted in the webcast. The importance of creative thinking was stressed and students were encouraged to develop innovative projects.

NPTEL REGISTRATION

The enrollment for various courses offered by NPTEL was done for the third year and second year students. About twenty two students from the second year registered for Digital circuits and thirty five students from the third year registered for Power System Analysis.

MATLAB COURSES

Dr.Rajasekaran, Mr.T.M.NavinKumar, D.Thaniga and Mr.R.Vadivelan attended and successfully completed MATLAB onramp courses on DEEP LEARNING. Copies of their certificates are as follows.