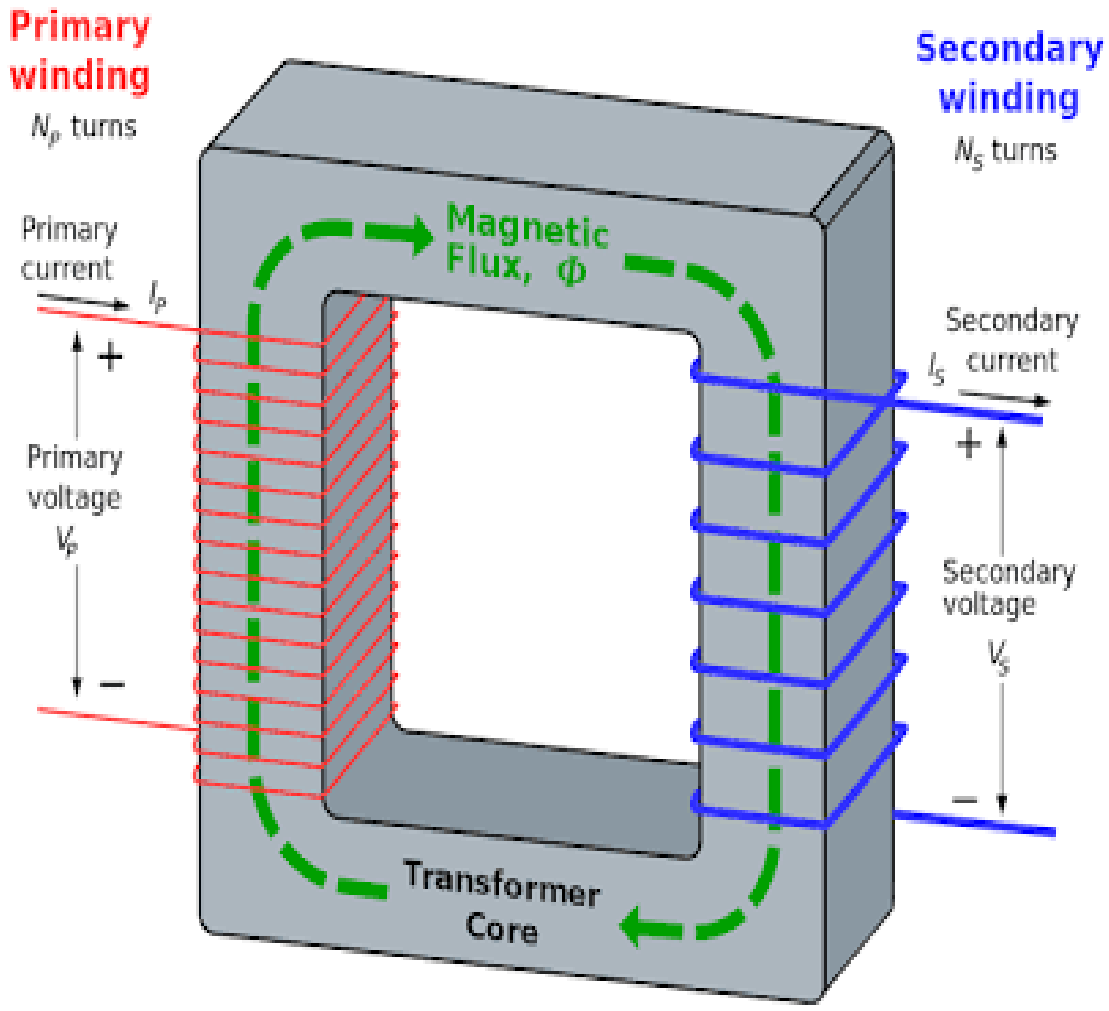
SPARKZ-2016

Department of Electricals and Electronics Engineering....



AUGUST 2016 EDITION

THE TEAM

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Message from the HOD'S desk

Greetings all,

I welcome you all to our esteemed institution and to this new academic year. Right now you have come as a novice here, but I would like you to leave as electrified stars. The hardwork you exhibit these four years will speak loud when you turn forty. So I would ask you to make optimum use of your college days. "Time lost is opportunity lost and career lost, in short, is life lost!" The faculties would be of timely help and will fulfill your timely needs. Hence, I would advise you all to act prudently. All the best for your future endeavours.

Dr.K.KalaiSelvi

HOD/EEE

1.FACULTY ACHIEVEMENTS:

a. Dr._K.Mala, Associate Professor, Department of EEE, Mr.Manoj Kumar ,EEE,IV A, Manoj Kumar.K of IV A, E&I, and Mr.R.Vignesh ,EEE,IV B are selected for oral presentation on the paper titled "A wearable diagnostic device to combat children's pneumonia" at Global Humanitarian Technology Conference , Seattle ,Washington,USA on October 13th to 16th 2016.

b. Dr.K.Mala,Associate Professor, department of EEE, had given a presentation on DST project Proposals on 15.7.2016 titled on "Advanced respiratory alarm and monitoring (ARAM) for elderly and disabled people" at Bangalore.

c. Mr. P.Senthilkumar, Assistant Professor of Electrical and Electronics Department has participated in FDP on "control systems" conducted by N. Kumaraswamy College of Engineering, Karur between 13.6.2016 and 19.6.2016.

d. Dr. R. Murugan /EEE, has recognized as a supervisor (ref no is 2730069.), Anna university in the research area on High Voltage Engineering, EM Field, Power Electronics and Drives.

2.STUDENTS ACHIVEMENTS:

1) Naganathan .N of III year A section had participated in SDP on Hybrid vehicle design & manufacturing for hybrid vehicle challenge organized by imperial society of innovative engineers from 14.7.2016 to 15.7.2016

2) Students of our department had attended a pre –conference tutorial session on the topic "ROLE OF ICT FOR AGRICULTURE AND RURAL DEVELOPMENT" conducted on 13.7.2016 and 13.7.2016 in association with International Conference On IEEE Technological Innovations In ICT For Agriculture And Rural Development on 15.7.2016 and 16.7.2016. The event was organized by Department of Information Technology, Easwari Engineering college

3.WORKSHOP DETAILS:

A workshop was conducted by Entrepreneur Development Cell on 26-07-2016 in multipurpose hall in main block first floor.It was a speech on start-ups. The speech gave a basic idea for the students about the competitive world of Entrepreneurship.It was a motivating speech as to how youth of today should come forward and take an initiative to stand on their own rather than working under someone.It was an enlightening speech and gave them a clear picture about the pros and cons.

The following students attended the workshop:

EEE II A:	MeenuBalika
	Hithesh Sankararaman
EEE II B:	Sowndarya
EEE III A:	Y.V.Aishwarya
	Keerthivasan
EEE III B:	K.Shivani
	Pranav.V.Sarma
EEE IV A:	P.Aravind
	Mohammed Asif Hasan
EEE IV B:	R.Vignesh
	S.Varun

4.FACULTY PUBLICATION DETAILS:

S.No	Authors	Title	Journal details
1	1.Smilee Mathuram and 2.C.Sharmeela	An Advanced Zigbee Stack for Effective Date Handling and Management	Middle-East Journal of Scientific Research 24(4) :1016-1024, 2016 ISSN 1990-9233 IDOSI Publications 2016 DOI:10.5829/idosi.mejsr.2016.24.04.23207
2	1.Murugan.R 2. Saravana Kumar M.N. 3.Azhagar Raj.M	Investigating the Effect of Current Shape on Rail Gun Design at Transient Conditions	International Journal of Advanced Engineering Technology E-ISSN 0976-3945
3	P. Aravind and V Kishore	E-street zone-automatic street light based on movements of vehicles	Indian journal of science and technology Vol9(16),DOI:io.17485/IIJST/2016/v9i16/92201, April 2016
4	1. R.Murugan 2. S.Poorani 3. A.Keshtkar 4. L.Gharib	Estimation of Inductance Gradient Empirical Formula of Rails using Regression Analysis Technique	International Journal of Advanced Engineering Technology E-ISSN 0976-3945
5	1. R.M.Renga Meena 2.Dr.K. Mala	Remedial Measures for Voltage Dip Using Crowbar Protection Technique for DFIG Wind Turbine	Paper id - 138
6	1.B.V.S. Annapurna 2. Dr. K. KalaiSelvi	Modelling of ZCT Transformer less PV Grid-connected HERIC Inverter	Paper id – 139

5.A.MOCK INTERVIEW-I

The Department of Electrical and Electronics Engineering has organized mock interview for final year students on 2.8.2016 between 4.00 pm to 5.30pm in seminar Hall, Main building, first floor. Mr. P.Pushpakarthick and Mr.P.Senthilkumar conducted the Mock interview-I for final year students who are eligible in Kaar technologies drive and also the Technical/HR panel members are Mr.Vijeesh, Mrs.Indusailaja, Mrs.A.Jouselinemetilda, Mrs.R.Keerthana, Ms.B.Ponkarthika, Mrs.P.Divya, Mrs.M.Devabrinda, Mr.Agin Paul and Mr.G.Vignesh had actively participated in the mock interview.

B.MOCK INTERVIEW-II

The Department of Electrical and Electronics Engineering has organized mock interview for final year students on 3.8.2016 between 4.00 pm to 5.30pm in seminar Hall, Main building, first floor.Mr. P.Pushpakarthick and Mr.P.Senthilkumar conducted the Mock interview-II for final year students who are eligible in Kaar technologies drive and also the Technical/HR panel members are Dr.R.Murugan, Dr.R.Karpagam, Mr.K.V.Thilagar, Ms.E.Priya, Mr.Marriskumar, Mrs.Divya, Mr.Agin and Mr.Vignesh had actively participated in the mock interview.

6. A.ALUMINI INTERACTION-I

The Department of Electrical and Electronics Engineering has organized a Alumini interaction by 2013 passed out batch for final year students on 6.8.2016 between 2.00 pm to 3.45pm in Simulation Lab, Main building, first floor. Mr. Bipin,Project Analyst ,CTS, Mr.Arun Kumar.R, Network Engineer, DELL ,Mr.Amrith.E.B, SEMBCORP, Design Engineer delivered a speech on "Effective preparation for the interview" assisted by the Placement co ordinators Mr. P.Pushpakarthick and Mr.P.Senthilkumar,

B.ALUMINIINTERACTION-II

Mr.Anirudhan,B.E , 2016 passed out batch a alumni student ,currently working in embed UR system gave a speech about the placement opportunities and preparation for interview in embed UR drive for final year A and B Section students on 9.7.2016 between 9.00am to 10.00am in LH5 and LH6.

7.VALUE ADDED COURSES:

The final year students underwent value added courses and placement training classes for a week ,which they find useful for placement preparation and competitive exams.

S.NO	Year/sec	Date	Topic	organization
1.	IV Year A&B students	**27.06.2016 to 01.07.2016**	**Embedded system and Robotics**	**Emsol systems**

8.PLACEMENT AND TRAINING CLASSES:

The final year students underwent placement and training classes for a week , which they find useful for placement preparation.

S.NO	Year/sec	Date	Topic	organization
1.	IV Year A&B students	**04.07.2016 to 09.07.2016**	**Placement training**	**FACE**

9. PLACEMENT DETAILS FOR THE ACADEMIC YEAR (2016-2017)

We congratulate the following students who have been selected in various companies.
Placement Summary:

S.No	Name of the Company	No of students placed
1.	E-CON SYSTEMS	01
Total No of Students Placed		01

UG Students

S.No	Name of the students	Name of the company
1.	HARISH G	E-CON SYSTEMS

10.IET ORIENTATION PROGRAM FOR STUDENTS

IET Introduction Session for students:

An introduction session by Mr.Raghavan, Regional Head, IET, and Chennai was held on 25th july 2016 for 2nd year students from all departments on **"Introduction to IET".** The program was conducted from 2.50pm to 3.45pm in the training hall-I, main building 5th floor. The programme was started off with a brief introduction about the IET and the benefits to the students by Dr.K.Kalai selvi, Professor and Head /EEE, Convenor, IET, EEC. Mr.Raghavan gave a presentation on the history and the programs offered by IET .The Students find the IET a wonderful platform for students and professionals to gain and share knowledge .He emphasized on the conduction of various seminars, conferences, and other activities frequently. Also he briefed the benefits of being a member of the organization including the free access to over 100 journals and more than 400 E-books.

11. INPLANT TRAINING SUMMARY: Academic Year: 2015 -2016

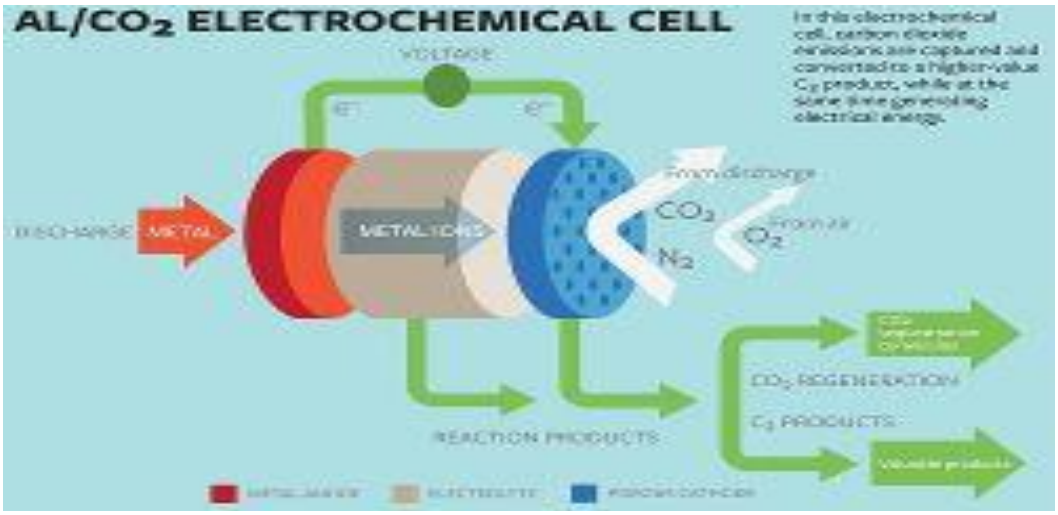
The following details shows the number of students was underwent Inplant training during the period of June 2016.

S.No	Name of the Company	No of Students Attended
1.	Bharat Sanchar Nigam Ltd.	01
2.	KELTRON Kerala State Electronics Development Corporation Limited	02
3.	TANGEDCO 110KV Sub-Station Viluppuram	01
4.	NTPC Limited	03
5.	CDCE Automation	01
6.	Kudankulam Nuclear Power Plant	18

7.	Kerela Electrical and Allied Energy Ltd.	05
8.	Megawin Switch Gears	10
9.	Oil and Natural Gas Corporation (ONGC)	03
10.	Neyveli Lignite Corporation	13
11.	L&T Chennai	01
12.	SIPRO	02
13.	Kothari Sugar	05
14.	Integral Coach Factory	04
15.	Ashok Leyeland	02
16.	Tamil Nadu Transmission Corporation	06
17.	Airport Authority of India	04
18.	TVS Brakes India	04
19.	Tamil Nadu Electrcity Board (TNEB)	05
20.	Care and Cure Pvt. Ltd	02
21.	L&T Power	01
22.	Bharath Heavy Electricals Ltd (BHEL)	01
23.	NTPL	02
24.	Chennai Port	03
25.	Dheen Leathers Pvt. Ltd, Ranipet	01

12. LATEST INNOVATIONS:

"Carbon capture" technologies - chemically trapping carbon dioxide before it is released into the atmosphere - is one approach. In a recent study, Cornell University researchers disclose a novel method for capturing the greenhouse gas and converting it to a useful product - while producing electrical energy.



Lynden Archer, the James A. Friend Family Distinguished Professor of Engineering, and doctoral student Wajdi Al Sadat have developed an oxygen-assisted aluminium/carbon dioxide power cell that uses electrochemical reactions to both sequester the carbon dioxide and produce electricity.

Their paper, "The O2-assisted Al/CO2 electrochemical cell: A system for CO2 capture/conversion and electric power generation," was published July 20 in *Science Advances*.

The group's proposed cell would use aluminium as the anode and mixed streams of carbon dioxide and oxygen as the active ingredients of the cathode. The electrochemical reactions between the anode and the cathode would sequester the carbon dioxide into carbon-rich compounds while also producing electricity and a valuable oxalate as a by-product.

In most current carbon-capture models, the carbon is captured in fluids or solids, which are then heated or depressurized to release the carbon dioxide. The concentrated gas must then be compressed and transported to industries able to reuse it or sequestered underground. The findings in the study represent a possible paradigm shift, Archer said.

"The fact that we've designed a carbon capture technology that also generates electricity is, in and of itself, important," he said. "One of the roadblocks to adopting current carbon dioxide capture technology in electric power plants is that the regeneration of the fluids used for capturing carbon dioxide utilize as much as 25 percent of the energy output of the plant. This seriously limits commercial viability of such technology. Additionally, the captured carbon dioxide must be transported to sites where it can be sequestered or reused, which requires new infrastructure."

The group reported that their electrochemical cell generated 13 ampere hours per gram of porous carbon (as the cathode) at a discharge potential of around 1.4 volts. The energy produced by the cell is comparable to that produced by the highest energy-density battery systems.

Another key aspect of their findings, Archer says, is in the generation of superoxide intermediates, which are formed when the dioxide is reduced at the cathode. The superoxide reacts with the normally inert carbon dioxide, forming a carbon-carbon oxalate that is widely used in many industries, including pharmaceutical, fibre and metal smelting.

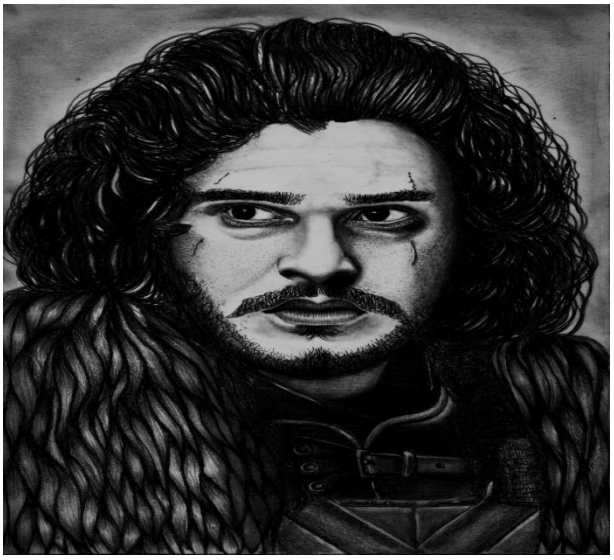
"A process able to convert carbon dioxide into a more reactive molecule such as an oxalate that contains two carbons opens up a cascade of reaction processes that can be used to synthesize a variety of products," Archer said, noting that the configuration of the electrochemical cell will be dependent on the product one chooses to make from the oxalate.

Al Sadat, who worked on board carbon capture vehicles at Saudi Aramco, said this technology in not limited to power-plant applications. "It fits really well with onboard capture in vehicles," he said, "especially if you think of an internal combustion engine and an auxiliary system that relies on electrical power."

He said aluminium is the perfect anode for this cell, as it is plentiful, safer than other high-energy density metals and lower in cost than other potential materials (lithium, sodium) while having comparable energy density to lithium. He added that many aluminium plants are already incorporating some sort of power-generation facility into their operations, so this technology could assist in both power generation and reducing carbon emissions.

A current drawback of this technology is that the electrolyte - the liquid connecting the anode to the cathode - is extremely sensitive to water. Ongoing work is addressing the performance of electrochemical systems and the use of electrolytes that are less water-sensitive.

Art Gallery:
(Game of the thrones) –Jon Snow



By

S.Varun-IV B/EEE