



ENERGIZE

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DEPARTMENT OF
ELECTRICAL AND ELECTRONICS ENGINEERING



KCG
COLLEGE OF TECHNOLOGY

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Vision of the Department

The Department of Electrical and Electronics Engineering aims to be a Centre of Excellence, recognized for high quality teaching, learning and research producing competent professionals to serve the nation.

Mission of the Department

- Impart quality technical education in Electrical and Electronics Engineering domain
- Nurture industrial collaboration in research and development activities
- Maintain state-of-the-art facilities to provide opportunities for knowledge upgradation
- Invoke the desire and ability of life-long learning in the students for a successful career.

Principal's desk



Dr. T. RENGARAJA
PRINCIPAL

: “Success comes to those who work hard and stays with those, who don’t rest on the laurels of the past.”

Education is not merely acquirement of facts but also of values which help us improve the different facets of mankind. It ensures that we leave the world a far better place than we found it. A pivotal role of education lies in shaping the personality of a child into a healthy mind and happy soul, who is not only equipped with 21st century skills and aptitude required for academic excellence but helping him face the challenges of life in a balanced and harmonious way. Each Department issue is a milestone that marks our growth, unfolds our imaginations, and gives life to our thoughts and aspirations. I congratulate the entire editorial team for their hard work and dedication in making this dream come true.

HOD's desk

It gives me immense pleasure to publish the 3rd issue of our newsletter, Energize. This is an age of cut throat competition. Apart from excelling in the field of studies, one needs to have the holistic development of his/her intellectual, emotional, social, physical, artistic, creative and spiritual potentials. Undoubtedly Energize will become the much needed platform to bring the creative best out of us. I wish the entire team heartfelt congratulations and best wishes.



Dr. P. DEIVA SUNDARI
HEAD OF THE DEPARTMENT

Staff Achievements

Guest Lectures

- A guest lecture was arranged on **'The Procedure to Apply Patents And It's Importance'** for 107 students on 9/7/2015. The key speaker was Mr. O. Prasad Rao, Assistant Controller of Patents, Designs and Trademarks, IP Office - Guindy, Chennai
- A guest lecture was arranged on **'Different Implementation of Network Level in Embedded Networking'** for 107 students on 27/08/2015. The key speaker was Mr. P.Saravanan Lead Engineer, HCL Technologies, Chennai
- A technical interaction with experts from M/s. SunEdison Energy India (P) Limited was arranged for 289 students on 16/9/2015. The key speakers were Mr.Tarur S. Shankar, Head – Media Relations, Asia-Pacific & Sub-Saharan Africa, Mr.Balajee Rangarajan, Director-Business Development (Wind), Sun Edision India Pvt. Ltd.

Seminars/Workshops/Conferences

- Dr.P.S.Mayurappriyan attended **'Indo – Sweden Clear Energy Symposium'** at Hindustan University from 21/07/2015 to 22/07/2015
- Mr.J.Arun Venkatesh & Mr.N.Loganathan attended **'Power Electronic Systems-Design Challenges & Prototyping'** at PSG College of Technology, Coimbatore on 6/08/2015
- Dr. R Murugan attended **'Optimization Techniques for Electrical Engineering'** at Karunya University on 3/11/2015
- Ms.M.A. Femina, Mr. K.Vinoth & Ms. L.N.Ramya attended **'How to Publish a Technical Paper With IEEE'** at IIT ,Madras on 20/08/2015
- Ms.M.A. Femina & Ms.L.N.Ramya attended **'FPGA Based Embedded System Design'** at CSI, Taramani on 18/09/2015 &19/09/2015
- Mr.S.Balaji & Mr.S. Rajesh attended **'An overview of Electromagnetic in Electrical Power Engineering'** at IIT, Chennai on 19/09/2015
- Ms.J. Agnus Jenith & Ms.Keerthana Paul attended a seminar on **'Solar Energy Systems'** at Anna University on 31/08/2015
- Mr.M.Preshnav & Mr.D.Pradeep attended workshop on **'FPGA Based Industrial Drives'** at PSG Tech, Coimbatore from 06/08/2015 to 08/08/2015

- Ms.Annes & Ms.Ammal Dhanalakshmi attended workshop on '**Soft Computing Technique**' at Velammal Engineering College from 29/10/2015 to 30/10/2015
- Mr.N.Loganathan attended workshop on '**Renewable Energy Resource using Integrating Utility Grids**' from 09/10/2015 to 10/10/2015
- Ms.V.Ramya & Ms.Parani Ganesh attended conference on '**Electro plating**' at CII on 11/08/2015 & 12/08/2015
- Faculty members from EEE attended '**One Day Conference on the Constitution of India**' at KCG College of Technology on 28/11/2015

Papers Presented

- Mr.N.Loganathan presented a paper on '**Embodied Conservational Agents based Home Automation using FPGA**' in E2IC2 held at Karpagam Engineering College, Coimbatore on 18/12/2015 and 19/12/2015
- Mr.Subash Chandra Bharathi. S presented a paper on '**Implementation of NOR Flash Memory Using JFFS2**' at the National Conference on Emerging Technologies in Electrical and Electronics Engineering (NCEEE'15) held at Valliammai Engineering College, Chennai

Journals

International

- Ms.Ramya.L.N published her work on '**Energy Conservation – A Case Study**' in International Journal of Applied Engineering Research
- Mr.Ramesh Prabhu & Dr.P.DeivaSundari published their work on '**Permanent Magnet Synchronous Wind Generator With Matrix Converter Using Venturini Algorithm**' in International Journal of Applied Engineering Research
- Dr.P.DeivaSundari & Ms.Agnus Jenith.J published their work on '**Integration of DC-DC CUK Converter for Efficient Regenerative Braking in Hybrid Electric Vehicles**' in International Journal of Applied Engineering Research
- Dr.P.DeivaSundari published her work on '**Swing Generator Using Power Electronics**' in International Journal of Applied Engineering Research
- Mr.Subash Chandra Bharathi. S published his work on '**Implementation of NOR Flash Memory**' in International Journal of Applied Engineering Research
- Mr.Subash Chandra Bharathi. S published his work on '**Implementation of NOR Flash Memory Using JFFS2**' in International Journal of Applied Engineering Research

- Mr.Subash Chandra Bharathi. S & Ms.J.Agnus Jenith published their work on '**Implementation of an Embedded System of UART and LED using UBOOT& Linux**' in IEEE Xplore, 978-1-4799-99854-8/15/2015 IEEE
- Ms.J.Agnus Jenith published her work on '**Integrated DC-DC Cuk Converter For Regenerative Braking in Hybrid Electric Vehicles**' in IJAER
- Mr.N.Loganathan published his work on '**Demand side energy management system using ANN based linear programming approach**' in IEEE Xplore 978-1-4799-3974-9
- Ms.Ramya.L.N published her work on '**A Case Study on Effective Consumption of Energy using Sensor Based Switching System**' in IEEE Xplore 978-1-4799-6817-6

Faculty Development Programmes

- Mr.Rubin Bose & Mr.Preshnav underwent a Short Term Programme on '**Biomedical Instrumentation on Diagnostic and Therapeutic**' at IIT Chennai from 16/11/2015 to 20/11/2015
- Dr.R.Murugan & Ms.Gayathri underwent training on Current issues Course on '**Power Quality and Micro Grid**' at St. Josephs Institute of technology from 29/10/2015 to 30/10/2015
- Mr.Rubin Bose underwent training on '**Embedded Systems**' at Anna University, MIT campus, Chennai on 30/11/2015, 01/12/2015 and from 16/12/2015 to 20/12/2015
- Mr.S.Rajesh & Mr.S.Balaji underwent training on '**Insulation Coordinator**' at Pondicherry Engineering college from 23/11/2015 to 27/11/2015
- Mr.N.Loganathan underwent training on '**Design of Electrical Machines**' at University College of Engineering – Dindugul from 16/12/2015 to 22/12/2015
- Mr.Pradheep underwent training on '**FPGA Based Industrial Drives**' at PSG Tech Coimbatore from 06/11/2015 to 08/11/2015
- Ms.Saravanakamalam & Ms.Annes underwent a Faculty Development Program on '**Distributed Control System**' at Hindustan University, Chennai on 11/09/2015
- Mr.Rajesh & Mr.Subash Chandra Bharathi underwent training on '**FDP on Control Systems**' at Jerusalem Engineering college from 22/06/2015 to 29/06/2015
- '**Case Studies in Wind Energy Conversion Systems**' was organized for 30 faculty members of the EEE department on 30/09/2015. The key speakers were Mr. J C David Solomon, Additional Director from NIWE & Dr. P.S.Mayurappriyan, Prof/EEE, KCG College of Technology



- FDP on DSpace was organized for 25 faculty members on 30/12/2015. The key speaker was Mr.Anikrishnan

Funded Projects

- The Project titled '**Modeling & Simulation of NBC inlet Valve Operations for Arjun MBT MK -1**' was funded by CVRDE of Rs.9.5 lakhs. The project commenced on December 2015 for a period of 1 year. The Principal Investigator and Co-investigators were Dr.P.Deiva Sundari , Dr.Rajapaul Perinbam , Ms.M.A.Femina, Mr.S.Subash Chandra Bharathi
- The Project titled '**Inductive Power Transfer System – Wireless Electric Vehicle Charging**' was funded by Hitachi Automotive Systems, Chennai of Rs. 6.5 lakhs. The Principal Investigator and Co-investigators were Dr.P.Deiva Sundari , Mr.Balaji.S, Ms.Agnus Jenith (Completed)

Patents Applied

- Nijanthan/EEE has applied for patent titled '**Emergion**' Application Number 3833/CHE/2015
- Sunil Kumar, S. Prathap/EEE has applied for patent titled '**Solar powered LPG gas leakage detection and control system**' Application number 3599/CHE/2015
- Vignesh.V/EEE has applied for patent titled '**ABHIRATH Cost efficient zero drive power wheel chair for developing nations**' Application number 431/CHE/2013
- Patrick Pious/EEE & Dr.P.Deiva Sundari has applied for patent titled '**Renewable energy supporting DC ceiling grid**' Application number 1860/CHE/2015

Honors and Awards

- Dr.P.DeivaSundari has won the **Best Teacher's Award** 2015 by the Confederation of Education Excellence on 04.09.2015
- Dr.P.DeivaSundari has won the **Best Researcher Award** from Association of Scientists, Developers and Faculties on 30/12/2015 - ASDF Global Awards 2015 Function.



Students Achievements

Workshop on '**Home Automation**' was conducted for 40 students from 26/07/2015 to 27/07/2015



Seminar on '**Introduction About Electrical and Electronics**' was conducted for 82 students from 2015/07/03 to 2015/07/04



Three days Hands-on Workshop on '**Solar Photo Voltaic System and installation**' was conducted for 60 students from 07/08/2015 to 09/08/2015

• One Day workshop on '**Prologue and Relevance to Matlab / Simulink for Budding Engineers -I**' was conducted for 85 students on 27/08/2015



Students Article



HALOKI - It binds 3 important aspects of life together.

HAppiness... **L**Ove... **K**Indness...

These 3 are the most important virtues than any other, to lead a peaceful life. All these three are interrelated. Where there is happiness there is love and where there is love there is kindness. By happiness I don't mean the happiness of oneself, I stress upon the happiness of others.

This world is filled with millions and millions of people. There are no differences whatsoever in any of us. All of us are created equal by the most high God. Almost all of us earn money out of hard work and dedication. But unfortunately many people are not able to earn not because they are not able to work hard, but because of their situation.

When we go to church or in places where a group of people meet say a beach or anywhere we see people begging on the streets. We shouldn't call them as beggars. I am sorry for addressing them as beggars, they are not so, they are also one of us and one among us. I am going to address them as friends. We feel sad for them and give them some money that we can afford.

The thing that I would like to stress is that, when we see our friends near church or beach or anywhere present them with money or anything that will be of use for our friends. As it is quoted in The Bible When you give do not make a big show of it...not even your father should know, but your father in heaven will reward you. And when you give, it's not how much we give that is important, It's the smile that we see on their face which fills us up with complete satisfaction that we have done something good for the people around us. For example, I give Rs. 10 to my friend no matter what your age is they will thank you in return. They consider you as some angel sent by God to relieve a small sand of their distress. How nice it is to be our friend's angel. As long as we breathe in this world we must not be the reason for someone's tears, but we must be the reason for someone's happiness.

This is the least that we can do for our friends to douse their distress for a very short period of time. It's not only by money that we can remove their pain. We can remove them by donating our time and effort and by LOVE . A small amount of kindness that we show towards them will be of great benefit for them.

Just compare our lives and our friend's life. We sleep in a cozy bed and have an alarm clock right beside us to wake us up...we have two angels MOM and DAD...who sleep right next to us one on either side to protect us from falling off the cot and our mom wakes us up each day with a smile on her face. We wear nice clothes...add artificial perfume and go out to our school/college where our parents have spent money for our education. Our parents are there right next to us who do everything they can for the benefit of us and to see the smile on our face.

But our friends do not have a proper place to sleep and are kept awake by the torture of mosquitoes. They are not blessed to even sit outside school. For our friends stepping inside a school remains a mammoth task. They do not even have proper clothes to wear. and they don't eat proper food while I have seen in many schools students dump the leftovers of their food. Each day when we cook we can keep aside some amount of rice and save them day by day and give it to our friends There are many organizations helping our friends who are willing to accept our small help.

Likewise each day we must save some of our money for our friends...say we get a pocket money of Rs. 50 per day if we save Rs. 40 each day we can end up at a grand sum of Rs. 1200 which will be of great benefit for our friends.

In bus stops and railway stations, we see people who are blind finding their way in the dark. Take their hand, hold it gently, greet them softly and guide them in their way, they are smarter than us. This gentle help will be of great benefit for them.

Sir. Thomas Edison stated "A single sheet of paper cannot decide my future". I presume he indirectly talks about money which cannot decide our future.

It's not earning money and getting settled in a high class house that's important in our life. It's never a priority. We can store riches on earth but when the last day arrives we are

are not going to take anything with us, it's just a 6-foot ground that we all need. As long as we live we must learn the good virtues and spread them to all the people of this world. Its written in the Bible "look at the birds they do not sow seed, gather a harvest, and put it in barns; yet our Father in Heaven takes care of them! Aren't we worth more than the birds?"

We are blessed...spread this blessing to the people around you.

V. Arun Kumar
BE.EEE – 'A' 2nd year

QUOTES

The best remedy for those who are afraid, lonely or unhappy is to go outside, somewhere where they can be quite alone with the heavens, nature and god. Because only then does one feel that all is as it should be and that god wishes to see people happy, amidst the simple beauty of nature. As long as this exists, and it certainly always will, I know that then there will always be comfort for every sorrow, whatever the circumstances may be. And I firmly believe that nature brings solace in all troubles..

Quote and photography by
D. JAGADEES EEE-A

Woken up by shouts of joy
of little children on the street,
i peeped out to find the reason..
The sun retreated
under thick dark clouds
with rain pouring down.
Kids began dancing
to the chords played by the drops..
I stepped out,
joining them in their dance
and sailing paper boats,
being captain of our own
steering our way merrily.
Out of nowhere came a tight slap!
as i turned,
my professor stood in rage..
i realized its a dream,
wish i could live them.

Arun Kumar.V
2nd year BE.EEE

Ak

The world that she envisioned..
a life where she is the queen..
the pleasures of being authentic..
and love that she yearned for..
filled her with glee, as she lived them in her book
never did she know..
that her world will be aflame..
her life hit by torpedo..
pleasures obliterated..
love extirpated..
life exterminated..
but with desires intact..
she endures the struggle..
and begins a new page..

Arun Kumar.V
2nd year BE.EEE

Ak



 Clicks by
Kiran Aravind S
III Year



Arts and Pics

D. Inba Kumar
III Year



D. Inba Kumar
III Year

EDITORIAL TEAM

Faculty Coordinators:

1. Dr. P. Deiva Sundari/ HOD
2. Ms. D. SaravanaKalam/ Associate Professor

Student Coordinators:

1. Ms. T. Manjula / IV year
2. Ms. N. Kundhavai/ IV year
3. Ms. Christeena Kunjummen/ III year
4. Ms. S. Janani / III year
5. Mr. R. Kumaran/ III year
6. Mr. C. Swaroop / III year
7. Mr. V. Vignesh / III year
8. Mr. Arun Kumar / II year
9. Ms. Kensha Hanna Jacob / II year
10. Ms. S. Subadeve / II year
11. Ms. V. Prasana Lakshmi / II year

Designed by

