DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ELEKTRA 2016

Volume 4 Issue 2

ELEKTRA16

"Excellence is a continuous process and not an accident."

A.P.J. Abdul Kalam

Our Department's Vision

To excel as a premier department in education and research , supporting over students to shape their dreams of becoming employable and committed engineering professionals.

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HOD'S DESK

I am happy to write foreword for the second issue of the Electrical & Electronics department news letter **ELEKTRA**. The focus of this humble attempt is to compile and consolidate the academic, curricular, co-curricular activities and research initiatives of faculty and students in a precise ready to refer well documented format. The contents will also highlight faculty, student's achievements and important college activities. Research as well as creative articles of faculty and students will be another highlight of "ELEKTRA".

I congratulate the editorial team headed by Mr.Rahul P, Mrs. Preethi Sebastian, and Mrs.Shoma Mani for their creativity and efforts in bringing out this newsletter. Wishing all success to the team in their coming endeavours.

EDITOR'S DESK

We have great delight in bringing forward the fourth volume of **ELEKTRA** .The objectives of the news letter are focused on the achievements of the Students and Faculty members from the EEE dept in Curricular, Co-curricular and Extra-curricular Activities. We are Very Grateful to our Management, Principal and HOD for their Support and Encouragement.

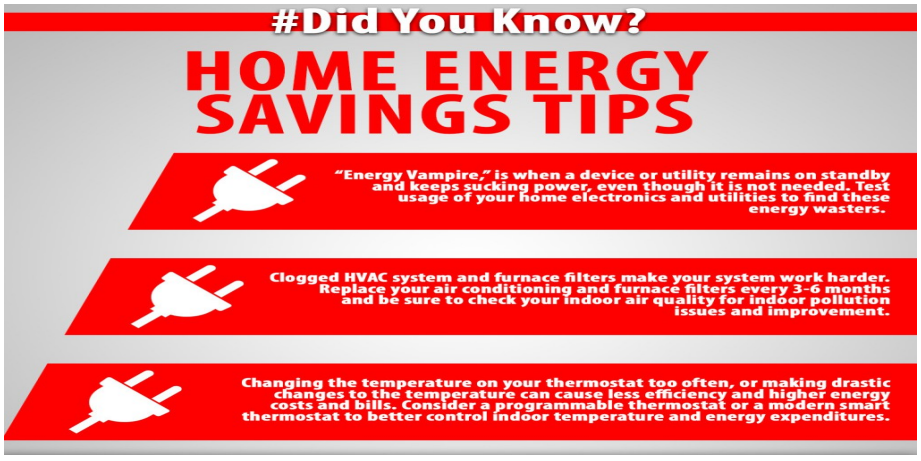
TECH NEWS

Technical Talk

The EEE department in coordination with Alumni association organized a talk on"Earthing" for the students on 23/08/16 at 2.pm..Er.Induchoodan,Assistant Engineer,KSEB gave a talk on the different types of earthing system and its importance in ensuring safety. Mr Induchoodan is also a former alumni of tour college.Prof.Benny.K.K delivered the welcome address , Adv Abraham Chettissery delivered the felicitation and Prof Sebastian Joseph gave the vote of thanks .

"Learn many software by Yourself"

An interdepartmental faculty development programme was conducted by EEE department on SPOKEN TUTORIAL on 25/07/2016 at digital theatre..Mrs.Neeba Sabu , Asst.Professor discussed the relevance of implementing ICT enabled teaching among students.The event was organized by Mrs.Liya Alias and Mrs.Neeba Sabu.



World Space Week Celebration

As part of UN's world space week celebration, Central Govt of India assigned ISRO/ VSSC Thiruvanthapuram , to organize world space development awareness program in education sector in India .As a part of this program, Mr. Joby Mathew George as Head, Test Operations Section in Aerospace Mechanisms Group, VSSC, Thiruvananthapuram delivered a talk on "India in space ".Mangalam College of Engineering is selected as the only engineering college in Kottayam district for conducting the mentioned program.The program was organized by EEE department and IEEE student chapter.

FACULTY DEVELOPMENT PROGRAMMES

FDP on Renewable Energy

A faculty development program was organized by EEE department on 29/07/16 on "grid connected PV system".

The talk was delivered by Er.Rajan Babu(,retd.Chief Electrical Inspector),KSEB.He emphasized the importance of renewable energy sources and the challenges of connecting solar system to the grid.

ANTI Drug Awareness Programme

An anti drug awareness program was organized by National Service Scheme (NSS) in association with EE department on 15/07/2016 from 11:00 a.m to 2:00 p.m.

"LET THE SUN PAY YOUR BILLS"

Faculty Achievements

- Prof Shaji Jacob was appointed as first year coordinator of Mangalam College of Engineering.
- Mr Rahul.P was appointed as Senior member of MG university exam cell
- Mr Jeneesh Scaria was appointed as member. of KTU exam cell
- MrsRahumath Beeby.K.A and Ms SreeDevi PS was appointed as department admission coordinators.

FACULTY DEVELOPMENT PROGRAMMES

Inauguration of Mangalam College of Engineering IEEE Student Branch

The inauguration of IEEE student branch of Mangalam College of Engineering was conducted on 29/08/16.Prof.Biju K,member of IEEE executive committee,Kerala section inaugurated the branch and also delivered the inaugural address.He gave the students an overall idea about the benefits of becoming an IEEE member.

The program was jointly organized by the department of Electrical & Electronics Engineering and department of Electronics and Communication Engineering.

Orientation Program for first year students

An orientation program was conducted for first year students of Electrical Department on 13/07/16..

The HOD Prof.Benny.K.K introduced all the faculty to the students.Prof Shaji Jacob gave a motivational talk as part of orientation.Mr.Rahul gave a session on "Scope of Electrical Engineering ".Mrs.Neeba Sabu also gave soft skill training to students

STUDENT ACHIEVEMENTS

Aravind A secured second prize at college level in the PES Quiz Contest 2016", a quiz contest for the first year engineering students held on Oct 4th as part of IEEE day celebrations by the IEEE power and Energy society.

Rohit Reghu and Jerrin George secured first in the district level technical quiz conducted by KSEB at St Gits college of Engineering

CULTURAL EVENTS

ELEXPLODE 2K16

Electronics and Electrical Engineering department conducted "ELEXPLODE 2016 an annual Inter-Department level contest with multiple technical events as a part of Pragyan 2016,a college level Technical Fest on 30/09/16 and 01/10/16 andIt included various programs like technical quiz,best performer,circuit debugging and best electrical engineer. Attractive cash prizes were offered to the winners. A project exhibition was also conducted by the students of Electrical Department .Student from various colleges and schools attended the function and participated enthusiastically in the various events.MrPhejil.K.Paul,Mr Rahul P,Mr Aju Thomas and Mr Jeneesh Scaria were coordinators of the event.

Industrial Tour

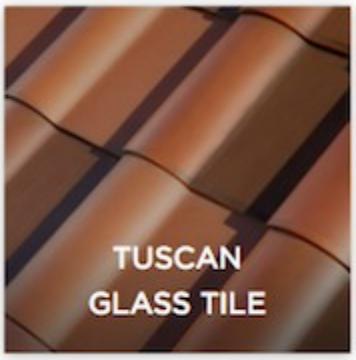
LATEST TRENDS

Tesla Launches Solar Roof and Powerwall 2 to Achieve Independent Residential Energy Supply

Elon Musk, Tesla chief executive, finally announced to launch the long-awaited solar roof that combines solar panels with roofs. It's a new product introduced together by Tesla and SolarCity. Tesla also revealed the Powerwall 2 residential storage system and the company claimed that if Powerwall 2 is connected with the solar roof system, it can generate 100% clean energy for the resident.

The roof tiles designed by Tesla and SolarCity are made of textured glass. High-efficiency solar panels are embedded inside the textured glass. "Through the use of a hydrographic printing technique, each tile is unique, just like natural slate," said Musk.Tesla offers four kinds of tiles – Textured Glass Tile, Slate Glass Tile, Tuscan Glass Tile, and Smooth Glass Tile.

The company has conducted an upgrade on every aspect of Powerwall 2. The Powerwall 2 has twice as much energy and twice as much power



(14.0 kilowatt-hours of energy), as the first iteration of the home battery (7.0 kilowatt-hours of energy), enough to power a four-bedroom house for an entire day. It will be guaranteed to work for unlimited cycles over 10 years. The price is $5,500, and deliveries will start in early December.

FACULTY PUBLICATIONS

1 Mr. Benny.K.K,Mrs and Mr Aravind Murali . presented a paper on " An efficient fully soft switched isolated DC-DC boost converter " in International Conference On Electrical,Electronics,Computer and Civil Engineering at Ernakulam on 17/08/2016.

2. Mr. Benny.K.K, Priya.S.P and Mr Aravind Murali . published a paper on " A highly efficient isolated DC-DC boost converter " in International journal Of Science & Engineering development research ,.Volume1,Issue 9,September 2016

3.Ms Preethi Sebastian,Ms Jeepa K.J and Mr Jestin.P.J presented a paper on 'Power quality improvement for multiple output SMPS based on bridgeless converter in International Conference On Electrical,Electronics,Computer and Civil Engineering at Ernakulam on 17/08/2016.

4. Ms Preethi Sebastian,Ms Jeepa K.J and Mr Jestin.P.J published a paper on "A highly efficient isolated DC-DC boost converterwith coupled inductor and charge pump" in International journal Of Science & Engineering development research ,.Volume1,Issue 9,September 2016.

5.Ms Rahumath Beeby.K.A,Ms Shoma Mani and Ms Anitha.K presented a paper on 'a High gain Dc Dc converter with coupled inductor and charge pump. in International Conference On Electrical,Electronics,Computer and Civil Engineering at Ernakulam on 17/08/2016.

6. Ms Rahumath Beeby.K.A, and Ms Anitha.K published a paper on "A dual switchDC-DC converter for high step up voltage gain" in International journal Of Science & Engineering development research ,.Volume1,Issue 9,September 2016.

7.Ms Jeneesh Scaria,Ms Deepa Sanal and Mr Rahul P presented a paper on 'a Multi output Dc Dc converter. in International Conference On Electrical,Electronics,Computer and Civil Engineering at Ernakulam on 17/08/2016.

8. Ms Jeneesh Scaria and Deepa published a paper on " Integrated multi output converter.for SMPS converter" in International journal Of Science & Engineering development research ,.Volume1,Issue 9,September 2016.

9.Miss Theertha Raj,Ms Eugene Peter and Ms Meera Rose Cherian P presented a paper on Bridgeless PFC modified SEPIC rectifier. in International Conference On Electrical,Electronics,Computer and Civil Engineering at Ernakulam on 17/08/2016.

10. Miss Theertha Raj,Ms Eugene Peter and Ms Meera Rose Cherian published a paper on " Bridgeless PFC SEPIC Converter" in International journal Of Science & Engineering development research ,.Volume1,Issue 9,September 2016.

11.Mr Phejil K Paul,Ms Liya Alias and Mr Mithun Mathew John presented a paper on " Power quality enhancement in bridgeless isolated Cuk converter fed BLDC motor drive". in International Conference On Electrical,Electronics,Computer and Civil Engineering at Ernakulam on 17/08/2016

12. Mr Phejil K Paul, and Mr Mithun Mathew John published a paper on " Improved power quality bridgeless isolated Cuk converter fed BLDC motor drive " in International journal Of Science & Engineering development research ,.Volume1,Issue 9,September 2016.