

TRANSEGE

Dear Readers,

**Dr.Rahimunnisa, Associate Professor and Head,
Department Of Electronics and Communication Engineering**

For years, “Trans-edge”, the enthusiastic publication of the activities by the Technocrats of the ECE department has created a platform for the erudite students to showcase their talents. The newsletter motivates both the faculty and the students to outperform themselves and unfold their creative instincts. It aims to enlighten the readers on the latest technological developments and thus drives innovation.

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The Editorial Team

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- Ashwin Srinivas II A
- S.P.Mirithika II B
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“Knowing is not enough; we must apply. Wishing is not enough; we must do”-

Johann Von Goethe



EASWARI ENGINEERING COLLEGE
DEPARTMENT OF ELECTRONICS AND
COMMUNICATION ENGINEERING



Vision:

To prepare engineers, proficient to meet the needs of current technological advancements in the field of Electronics and Communication Engineering by establishing a learning environment consistent with industry standards in academics and research.

Mission:

M1:

To create a passion amongst students for contributing to research by providing industry oriented learning.

M2:

To impart in depth knowledge in principles and applications related to design and development of various systems for societal needs.

M3:

To build the skill sets, attitude and core competence of students and faculty by providing them with the opportunity to organize various technical events which will bring out their inherent talents

M4:

To produce graduates with technical expertise, professional attitude and ethical values

M5:

To instil creative thinking through innovative and team based methods which develops the entrepreneur skills, employability and research capability among professionals

M6:

To inculcate in the graduates, the thirst for life-long learning and guide them to obtain thorough knowledge in their chosen interdisciplinary field



ARTICLES

CYBER SECURITY

Cyber security or information technology security is used to protect computers, networks, programs and data from unauthorized access or attacks that aims exploitation.

Major areas covered in cyber security are

- Application security
- Information security
- Disaster security
- Network security
- Mobile and Cloud security
- Data security and Identity management

The major problem in cyber security is facing the ever-evolving cyber attacks. Some of the cyber attacks are

- Operation Shady RAT
- World of HELL
- RED OCTOBER, discovered in 2012 was operating world-wide for up to 5 years including information from mobile devices and diplomatic secrets.
- Wanna Cry ransom ware attack on 12 May 2017 affecting hundreds of thousands of computers in more than 150 countries.

WANNA CRY

The latest cyber attack [Wanna Cry](#) ,which affected about 300,000 computers is a ransom ware attack. The ransom ware enters a person's computer through an email file attachment or a dubious web link and blocks access to all user data and displays an image asking for ransom to unlock files.



WANNA SMILE

A 19-year-old software student from Assam, Indrajeet Bhuyan and his friend Hrishikesh Barman claim to have found a solution for this ransom ware attack, they named it **Wanna Smile**. It is a couple of batch files that users can download and install on their systems to prevent attacks. This sets up a proxy server which instructs the ransom ware to kill itself and also turns off Server Message Block.

These are the measures taken during the development life-cycle to protect applications from threats & flaws application design.

Basic techniques

Input parameter validation

User / Role Authentication and Authorization

Session management

Auditing and logging

INFORMATION SECURITY

It protects information from unauthorized access to avoid identity theft and to protect privacy.

Major techniques used to cover this are

Identification, authentication and authorization of user

Cryptography

DISASTER RECOVERY

It is a process that includes performing risk assessment, establishing priorities, developing recovery strategies in case of disaster. Any business should have plans for disaster recovery.

NETWORK SECURITY

It protects the usability, reliability, integrity and safety of the network. Effective security is the one which stops malware from spreading on the network.

It includes

- Anti-virus and Anti-spyware
- Firewall- to block unauthorized access to your network
- Intrusion prevention systems (IPS)- to identify fast spreading threats, such as zero-day or zero-hour attacks
- Virtual Private Network (VPN)-provide secure remote access.

-Sisara, ECE IIC



SNEAK PEEK

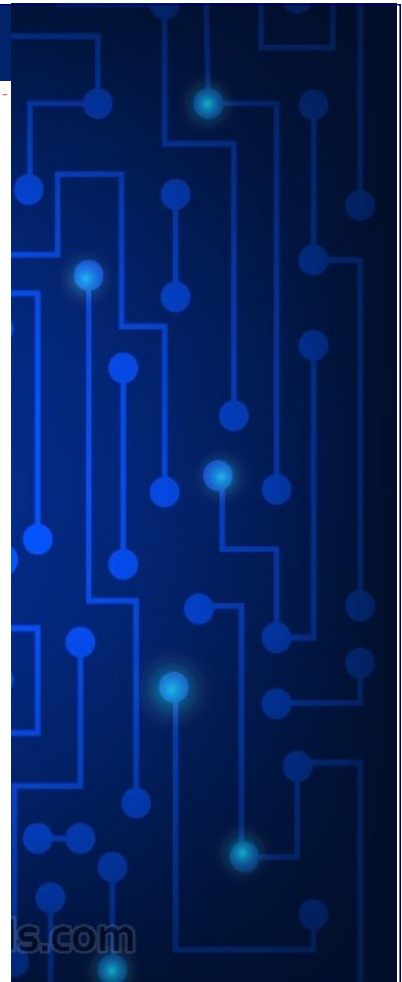
(A glance into the latest technological developments and inventions)

A CONTACT LENS THAT RECORDS VIDEOS

Sony, has filed a patent for a contact lens that shoots video. The camera is turned on and off with blinking of eyes. There are sensors within the lens that distinguish if a blink is intentional or not. Moreover, the design suggests that eye movements would charge the device. It also features auto focus exposure and an adjustable zoom.

As a matter of fact, Sony is not the only company to be working on the development of devices like this. As per resources, Samsung has unveiled plans for a contact lens that can take photographs, Google has revealed a lens that measures glucose levels in the tears of diabetics.

Just one of those revolutionary inventions that change the world we 'see' (quite literally)





GOOGLE LENS

Ever faced the trouble of going underneath a table just to get the user name and the password of a Wi-Fi router?? Well, don't worry, Google has got your back. Google lens– is the 3rd (and arguably the best) eye for any user.

Google Lens is a set of vision based capabilities that can understand what you are looking at. Say you are in front of something and you want to know what you are looking at, you can invoke Google Lens from the Google Assistant and point your phone at it and it does the hard work for you.

Google Lens is to be shipped into Google assistants and photos and then to other google products.

As we can see, development in technology, by itself is at an inflexion point with Vision and the fact that computers can understand images has profound has profound implications.



CONDUCTIVE PAINT

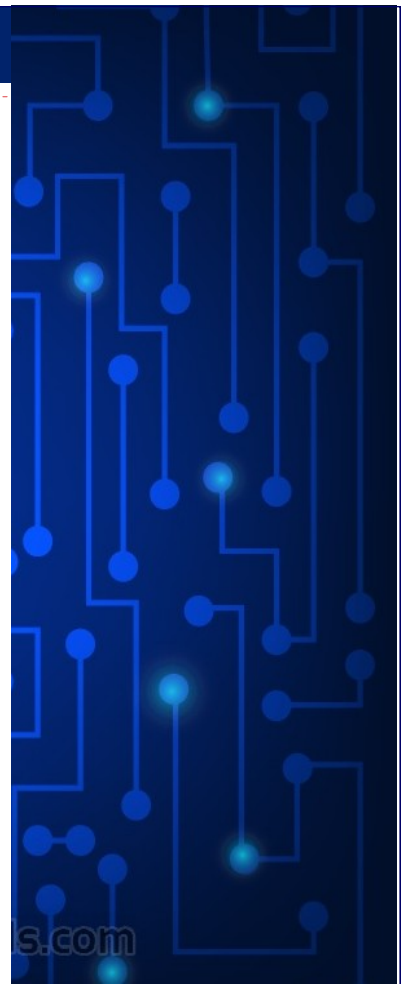
Ever imagined drawing a line between 2 points instead of going through the pain of laying a wire. Well, to our pleasant surprise, ORCAD just got real. If you had ever wished that establishing connections were as easy as doing them on ORCAD, your wish has come true!

A conductive paint, is nothing more than a viscous fluid that starts to conduct electricity when dry.

To add to your surprise, this paint has the outstanding ability to make any surface come to life.

So simply put, a wallpaper with conductive paint is all the wiring you might have to do for an entire house in the near future.

The reason behind the conductivity of this paint is the presence of Carbon, which also makes it a relatively low cost product that people can now play with, 'safer'.



FACULTY PUBLICATION

INTERNATIONAL/NATIONAL JOURNAL

NAME OF THE AND FAC- ULTY	TITLE OF THE PA- PER	NAME OF THE JOURNAL
Jesvin Veancy,.B	'Performance Improvement in LTE-OFDM System with MIMO Beamforming'	International journal of Advance Research in Science and Engineering Vol.6 ,issue 4, Apr 2017, ISSN(o)2319-8354.
Dr. K.S. Thivya, & K. Suriya Krishnan	"An efficient data hiding approach on digital colour image for communication"	IJIET, Volume 8, Issue 02,apiril 2017
K. Suriya Krishnan	" Improved health monitoring using location aware sensor routing protocol"	International journal of advance research , ideas and innovations 2017.
T.Gophika	"An Automatic Detection System for Entry of Wild Animals "	May 17 Volume 5 Issue 5 , International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), ISSN: 2321-8169, PP: 1324 – 1326

FACULTY PUBLICATION

INTERNATIONAL/NATIONAL CONFERENCES			
S.NO	NAME OF THE FACULTY	TITLE OF THE PAPER	DETAIL OF THE CONFERENCE
1	R. Senthamizh Selvi	“Embedding data in audio signals using HSA-EMD Algorithm”	ICONSTEM- COMPACTDISC-17
2	R. Senthamizh Selvi	“Enhancement of Speech Intelligibility and Quality in Hearing Aid using Fast Adaptive Kalman Filter Algorithm”,	5th International Conference on Recent Development in Engineering Humanities, and Management, April 2017, ESHM
3	Gophika Thanakumar	“An Automatic Wild Animal Detection and Warning System”,	International Conference on Innovative and Emerging Trends in Engineering and Technology (ICIETET'17),Panimalar Institute of Technology,15th May 2017
4	A.Usha	“Segmentation of OCT image by Graph cut technique and Classification by SVM Classifier “,	International Journal of Electrical and ElectronicsEngineers” and “ 5th international Conference on Recent Development in Engineering Science, Humanities and Management” 16th Apr 2017
5	K.Suriyakrishnaan,	”Improvement of Network life time with securityload balancing mobile data clustering for wireless sensor networks”.	,ICSSS 2017-IEEE Third International Conference on Sensing,Signal processing and Security.Chennai on 5 th May 2017
6	Dr. K.S. Thivya K. Suriya Krishnan	”RF TRANSMITTER AND RECEIVER BASED ON ENERGY METER USING ZIG-BEE”	National Conference on Green Energy Technologies-Energy Management Instrumentation, Organized by CSIR-CSIO, Chennai Chapter held at Misrimal Navajee Munoth Jain Engineering College , Chennai on 29 th April 2017.
7	K.Suriyakrishnaan,	”Optimal Data Dissemination over wireless Networks”.,	ICSSS 2017-IEEE Third International Conference on Sensing,Signal processing and Security.Chennai on 5 th May 2017



ACHIEVEMENTS

Suryaprakash of ECE 3C, won 3 Gold medals at the district level Wushu tournament held at The Jawaharlal Nehru stadium on the 14th of may 2017

To add to his Glory, he also won 3 silver medals at the Tamil Nadu state wushu tournament held at Kumaraguru college of Technology, Coimbatore.



"The greatness is in the painting and not in the painters signature"

as is the contribution of the department that makes this Newsletter what it is today..

Reach Us

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