## **Electronics & Communication Engineering News Letter**

## \*\* **PESITRONICS** \*\* Imagination Becomes Reality

## PES Institute of Technology & Management, Shivamogga

Affiliated to AICTE, ISO 9001 2015 Certified Institute, NH-206, Sagar road, Shivamogga-577204.

#### Vision

To be a leading center of excellence in the field of electronics and communication engineering for learning and research with professional ethics.

### Mission

M1: To provide quality technical education for students to develop into globally competent professionals. M2:To develop a framework for collaboration and multidisciplinary activities to ensure ethical and value based education to address social needs.

### **Quality Policy**

Our Quality Policy is to develop highly skilled human resources with the ability to adapt to an intellectually and technologically changing environment with the participative efforts of the management, staff, students and parents.

PESITM is committed to comply with ISO 9001 :2015 requirements and continually improve the quality of services and quality Management System.

### **Program Educational Objectives (PEO)**

Electronics & Communication Engineering is a branch of engineering that incorporates skills and expertise needed in the industries. Bachelor's program in Electronics & Communication Engineering is aimed at preparing graduates who will.

PEO 1: To develop the ability among students to understand the concept of core subjects.

PEO2: To give exposures to emerging technologies, adequate training and opportunities to work as team on multidisciplinary projects with effective communication skills.

PEO3: To cultivate ethical practices in Professional, Societal & Environmental needs by engaging in life-long learning.

### **Program Specific Outcomes (PSOs)**

ECE graduates will be able to:

PSO1. Analyze and design analog & digital circuits or systems for a given specification and function.

PSO2. Implement functional blocks of hardware-software co-designs for signal processing and communication applications.

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Dept. of Electronics and Communication Engineering became functional with the establishment of the institute in the year 2007. Being the core branch in Engineering, it has a lot of potential in various Sectors such as Telecommunication, IT, Low power VLSI Design, Embedded system & Robotics, and Manufacturing & Testing. The current intake for UG Program is 120.

Dept. of E&CE has highly skilled faculties, well equipped with latest laboratory equipments & industrial software's like CADENCE, MATLAB, Xilinx and more. Department has conducted and organized National Conference, workshops and technical talks related to the current trends and technology.

Staff and Students of E&CE have involved with several research/ curricular and co-curricular activities throughout the semesters and academic year, the PESITRONICS newsletter brings you the foretaste of all the activities in the E&CE Department.

## PLACEMENT CORNER



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# GALLERY



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### **PESITRONICS-** Imagination becomes reality

**FEB** 2017





# Air into water



Johathan Ritchey has invented the watermill, which is an atmospheric water generator. It converts air into fresh water. This latest technology invention produces fresh water at a cost of about 3 cents a liter (1 Quant). Originally designed for areas that do not have clean drinking water, the water mill is for households that prefer an eco-friendly, cost effective alternative to bottled water. Atmospheric water generators convert air into water when the temperature of the air becomes saturated with enough water vapor that it begins to condense (dew point).

"What is unique about the watermill is that it has intelligence," says Ritche. This makes the appilence more efficient. It samples the air every 3 minutes to determine the most efficient time to convert the air into water. It will also tell you when to change the carbon filter and will shut itself off if it cannot make pure clean water.



Mr. Lingaraj R S Mr.Halaswamy K E Lab Instructors, Dept. of ECE, PESITM Shivamogga

## **Revocable Data Hiding In Ciphered**



Distinct revocable data hiding in ciphered image also means hiding data reversibly in encrypted image in separable manner. Nowadays data transmission over internet has increased tremendously so image security has become an important factor to be considered for e.g., video surveillance, confidential transmission, medical and

military applications.

The proposed scheme consists of image encryption, data embedding and data-extraction or image-recovery. The content owner first encrypts the original image using an encryption key to obtain an image in encrypted form. The data-hider compresses the least significant bits (LSB) of the encrypted image using a data-hiding key in order to create a sparse space to accommodate some more amount data.

Now at the receiver side, the data embedded in the created space can be easily retrieved according to the data hiding key from the encrypted image. Because the data embedding only affects the LSB, a decryption using an encryption key can then give us an image similar to the original one. By using both the encryption as well as the data-hiding key, the embedded additional data can be successfully retrieved and also the original image can be perfectly recovered.

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## **TOPPER'S LIST**

### 8<sup>™</sup> SEM

	Section A	Section B			
USN	Name	%	USN	Name	%
4PM12EC009	D'Souza Shweta	79.6	4PM12EC049	Ramyashree k	80.8
				t	
4PM12EC025	Kumar M Bayar	78.67	4PM12EC078	Swathi E S	79.6
4PM13EC402	ASHOK BABU A	77.2	4PM12EC062	Shruthi l	78.13

## 6<sup>™</sup> SEM

Section A			Section B			
USN	Name	%	USN	Name	%	
4PM13EC042	Madhura A M	80.33	4PM13EC061	Pavithra	81.33	
4PM13EC005	AMRUTHA K R	79.77	4PM13EC080	SHILPASHREE H S	75.22	
4PM13EC044	Maheen	76.55	4PM13EC070	RANJITHA S	74.33	

### 4<sup>th</sup> SEM

Section A				Section B			
USN	Name	%		USN	Name	%	
4PM14EC006	Akshtha S	72.77		4PM14EC099	Sushma J	82	
4PM14EC044	NagamaniBhat	72.77		4PM14EC098	Sushma H B	74.44	
4PM14EC012	APOORVA RAJ C B	72.33		4PM14EC093	SPANDASHRI	72.55	

### We need articles for future additions of Newsletter

Please consider providing a short item of news, or an in depth article for the next edition of the newsletter. We would like to invite everybody to submit a short story/article/announcement that can fit in the following structure. News items and announcements –

- Short, topical, news oriented technical/ non-technical topics.
- Paintings, sketches, comics, poems, dag-writings, short stories etc.
- Major and minor technical articles are also accepted.
- Jokes, Punch dialogues, quotes of your own could be included.
- All of above said matters could be accepted in English or in kannada formats

Feel free to communicate with the student and staff coordinators for more details.



Mr.VINAY KUMAR Participated in state level speak Karnataka debate compilation on 29th November 2016 & won 3rd prize.

**Editorial Team :** 

Mr. Vishwanath Muddi Mr. Kunjan D. Shinde Dr. M Manoj Kumar

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