Maharshi Karve Stree Shikshan Samstha's

Cummins College of Engineering for Women, Pune

Affiliated to Savitribai Phule Pune University
Accredited by National Board of Accreditation (NBA), of AICTE, New Delhi,
Accredited by National Assessment and Accreditation Council, (NAAC),
Member, COPTED; Consortiun for Overseas Projects in Technical Education.

E & TC DEPARTMENT PRESENTS

TARANG

Volume - 10 / Issue - 2 | JUNE 2015

INDEX

T A R A N G T E A M

Standing (Left to Right) - Surbhi Singh, Shriya Kaul, Madhura Nadgauda, Kavita Shah,
Sitting - Miss Ketaki Behle, Dr. Prachi Mukherji, Prof. Manasi Pathade, Prof. Minal Pawar

EDITORIAL

It gives us immense bliss to deliver to you yet another exquisite issue of "Tarang" at the kickoff of the Academic session 2015-16.

We bring to you a collection of innovative ideas which, if conceived properly into right minds, can bring revolutions. Ideas like creation of fabrics which have the potential to generate electricity. Another issue that this edition covers is a technology that allows detection of human emotions using SHORE (Sophisticated High Speed Object Recognition Engine).

As the readers maneuver further into the depth of the magazine, we have a project synopsis on reverse car parking using ultrasonic to let the minds of the readers keep changing their gears for a long time to come.

For all those minds out there who find the fragrance of fresh pages intriguing, they will find another project synopsis on sms based e-notice board using GSM. In the end we proudly present before you the achievements of our Faculty members and the students as well.

- Tarang Team

MESSAGE FROM HOD

Another semester has passed with its share of unforgettable events thoughtfully captured in Tarang.

Tarang is a platform to bring out the hidden talent of creative writing among the students of E&TC department.

Tarang showcases students achievements in extracurricular and co-curricular activities with bright photographs. Faculty members achievements are also well chronicled.

I appreciate the editors, contributors and the staff involved for bringing out this issue and keeping us posted. Keep it up !

Dr. Prachi Mukherji

HoD, E&TC Dept.

CHARGE OUT OF CLOTHES !!!!

SHRIYA KOUL, T. E. "B"

YES you read that right; we can now generate electricity out of clothes.

Scientists in South Korea have developed a flexible, foldable and wearable fabric that generates electricity as it bends and flexes. A person wearing a shirt tailored from the material

Only has to move around to power a small screen or other electronic devices.

The advance represents an important step toward making wearable power sources a Reality. "Cell phones need batteries, but batteries have limited life". With clothing that can generate electricity, that's no longer an issue: "we can make power by ourself."

A shirt made from the new fabric can be worn — even patched — like any other item of clothing. It feels like an ordinary jacket.

■ HOW IT WORKS??

The power-generating material is known as a wearable triboelectric (TRI-bo-ee-LEK-trik) Nanogenerator, or WTNG. Here's what that means: Triboelectricity refers to electricity generated by friction. Friction is the resistance encountered when one material moves over or through another material. People feel friction (in the form of heat) when they rub their hands together. In fact, the prefix tribo comes from the Greek word for rubbing. Meanwhile, nano is a prefix meaning a billionth. The material includes tiny zinc-oxide rods only billionths of a meter long. Those spiky nanoparticles help convert motion into electricity. Some kinds of triboelectricity are familiar. When a person rubs her head with a balloon, her hair stands on end. That's because the balloon "steals" negatively charged particles called electrons from her hair. The balloon ends up with a negative charge. The hair with a positive charge. Opposite charges attract. So the positive hair stands up to reach the negative balloon. This is static electricity, and it is triboelectric. The new fabric combines different materials. The top and bottom layers are a cloth coated with silver. The middle layer contains the zinc oxide coated with a polymer. (A polymer is a substance whose molecules are made of long

chains of repeating groups of atoms.) When the fabric bends or moves, the coated rods move back and forth against the silver. The movement produces a reaction similar to that in the hair-and-balloon example. Here, it's the polymer layer that picks up electrons from the silver layer. The researchers connected the two outer silver layers with a wire. The wire lets a small electric current run through it. As they compressed and released the fabric, the scientists measured that current. Multiple layers of WTNG produced more electricity than single layers, they showed. The smart shirt is capable enough to generate power for a small screen,lighten up an array of small light-emitting diodes. For now, the shirt only works when someone is moving. The researchers also are working on a washable version.. Researchers hope to use the technology to build wearable electronics, including medical sensors that stick to the skin. These currently require an external power source. By taking mechanical energy that would go to waste and converting it to electricity, WTNGs might one day give people the power to recharge our own electronic devices as we move throughout the day.

❑ ❑ ❑

GOOGLE GLASSES: CHANGES THE WAY YOU SEE PEOPLE

MADHURA NADGOUDA, T. E. "B"

We humans mask our intentions with lies, misdirection and misinformation. But one of the most telling aspects of interpersonal communication isn't words. It's body language. Some researchers say that more than half of our communication happens through body language; tone of voice and spoken words were a distant second and third, respectively.

These days, it's not just people reading body language. Machines are picking up on those nonverbal cues, too, to the point where some can even read our emotions.

Take the SHORE Human Emotion Detector, which is an app (or "glassware") for Google Glass, a wearable computer from Google. A German organization called the Fraunhofer Institute initially created SHORE for object recognition. SHORE stands for Sophisticated High-Speed Object Recognition Engine.

To a computer, your face is ultimately just another object, albeit one with all sorts of unique contours and shifting topography. When performing its calculations, all SHORE needs is a simple digital camera like the one found on Google Glass. At around 10 frames per second, it analyzes incoming image data and compares it against a database of 10,000 faces that were used to calibrate the software.

Using those comparisons, along with on-the-fly measurements of your face, SHORE can make a pretty good guess as to whether you're happy, sad, surprised or angry. About 94 percent of the time, SHORE knows if you're male or female. It has the ability to guess a person's age too.

But what is the use of this feature in google glasses? What makes it so special? This feature has found its use in many fields.

Car makers could integrate SHORE into their vehicles to detect driver drowsiness. In this application, an alarm would awaken drivers in danger of drifting off at the wheel.

Medical personnel could use SHORE to better identify physical pain in patients. SHORE may even detect psychological distress like depression, which is notoriously difficult to spot in many people. In assisted living situations, SHORE could keep a tireless eye on patients to ensure that they're safe.

All of SHORE's calculations happen on the local device. And it all starts with face detection. SHORE detects faces correctly approximately 91.5 percent of the time. It recognizes whether your face is forward, rotated or pointed to one side in profile. It tracks the movement of your eyes, nose, lips and other facial features and checks the position of each against its face database. The system works best when your subject is facing you and within 6 feet (2 meters) or so.

The software uses tried-and-true algorithms to deduce the emotional state of each target. Because it works so quickly, it can even pick up on micro expressions, those flickers of facial expressions that last for a fraction of second and betray even people who are excellent at controlling their body language.

It's easy to be a little (or a lot) scared by SHORE. If a piece of software can accurately detect your mood, age and gender, why can't it identify you by name? The answer is, well, it probably could. Governments and companies have been using facial recognition technologies for years now to spot terrorists and criminals.

But SHORE doesn't share the images it captures. It doesn't even need a network connection to perform its magic. Instead, it simply uses the Glass's onboard CPU to do its work. That means none of the images go into the cloud or online where they could be used for either good or nefarious purposes. It also means SHORE won't identify people, which in theory, cuts out a major concern about privacy.

SHORE is not limited to google glasses only. Any computer with a simple camera, such as a smartphone or tablet, may eventually be able to install SHORE for emotion detection purposes. As emotion recognition applications advance, software of all kinds will transform in weird and wonderful ways. You can bet that clever programmers will find all sorts of ways to integrate emotion detection into upcoming apps.

❑ ❑ ❑

PROJECT SYNOPSIS

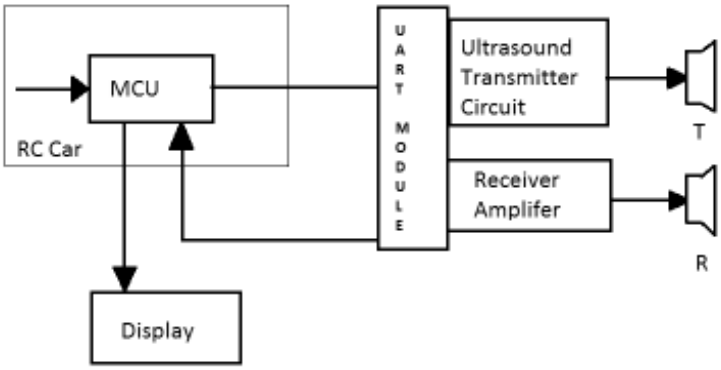
1. "REVERSE PARKING SYSTEM USING ULTRASONIC SENSORS ON A RC CAR"

KAVITA SHAH, T.E "B

The project "REVERSE PARKING SYSTEM USING ULTRASONIC SENSORS ON A RC CAR" was the AWARD WINNING PROJECT of TE mini project competiton.This project was developed by "Mitha Tanzeela, Panickar Malavika, Ojha Siddhi"for making the reverse parking more efficient and safe.

Ultrasonic sensors are one of the cheapest methods of object detection. One of applications of ultrasonic sensors is distance measurement between the source and target object. In this project we implement a reverse parking system which uses the ultrasound sensor to measure the distance between the RC (remote controlled) vehicle. In this project we are employing an ultrasound sensor on remote controlled car as a reverse parking system. As we park the car we are able to display the distance on the LCD as the car moves closer to the obstacle.

■ BLOCK DIAGRAM :



■ MICROCONTROLLER :

PIC18F4550 is an 8 bit microcontroller. PIC18F4550 has been implemented with Nano WATT technology hence it requires very low power for its operation.

❖ **Special Features :**

- Enhanced flash programme and the 1KB Dual Access RAM for USB are used for buffering.
- PIC18F4550 consists upto 13 channels for 10 bit analog digital convertor.
- PIC18F4550 is compatible to work with different internal and external clock sources. It comes with four built-in timers or an external oscillator can be interfaced for clocking.

■ SENSOR UNIT :

HC-SC04 UltrasonicDistance Sensor is a popular and low cost solution for non-contact distance measurement function. It is able measure distance from 2cm to 400cm with an accuracy of about 3mm. This module include ultrasonic transmitter, ultrasonic receiver and its control circuit.

■ LCD :

We are using 16x2 LCD display to display the distance between the obstacle and the vehicle.

■ POWER SUPPLY :

We have designed a power supply which is given a source of 9 volts and produces and output of 5 volts to power the PIC microcontroller and ultrasound module.

■ WORKING METHOD :

There are two methods for obstacle detection and distance display.

- UART based.
- TIMER based.

■ APPLICATIONS :

- Biomedical applications.
- Ultrasonic welding.
- SONAR(Sound Navigation and Ranging)
- Ultrasonic Cleaning.
- Blockage detection.

2. "SMS BASED E-NOTICE BOARD USING GSM"

KAVITA SHAH ,T.E "B"

The project "SMS BASED E-NOTICE BOARD USING GSM " was among Top FIVE project in Mini project competition.This project has been done by"Chandrate Samruddhi, Deshmukh Vaidehi, Dudhate Sneha." This project mainly focuses on transmission of textual data through air interface by the use of GSM through asynchronous serial communication.

Wireless communication has announced its arrival on big stage and the world is going mobile. This remote control of appliances is possible through an Embedded Systems.An embedded system is a combination of hardware and software to perform a specific function.Notice Board is a primary device in any organization or public utility places like bus stations, railway stations and parks to display any text information.But to change or manage information time-to-time is a difficult process.So, an advanced wireless notice board system is required.

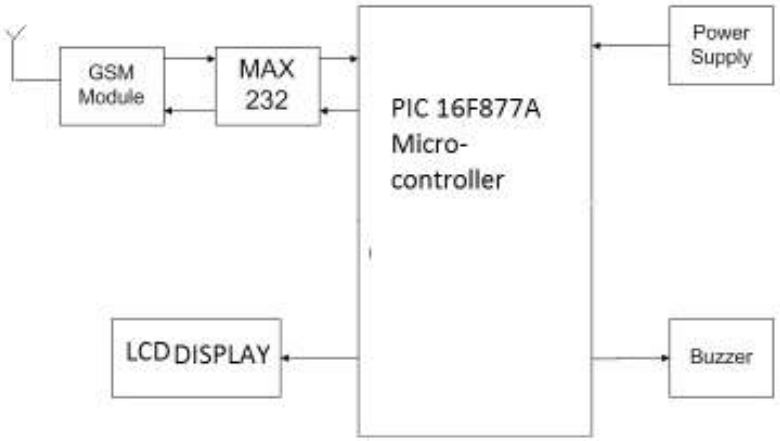
■ OBJECTIVE

This project is oriented towards the improvement in sending message from any of the remote area to the distant located e-notice board using GSM mobile. For sending the text message from the remote area we need to interface the mobile phone with GSM mode.In this project, advance wireless notice board system is proposed to display notice sent through a SMS from an transmitter. The receiver will receives the SMS, validates the authentic code send with an SMS and displays the desired information after necessary code conversion.

■ BLOCK DIAGRAM

❖ **TRANSMITTER :**

❖ **RECEIVER :**



■ POWER SUPPLY

The power supply unit is used to provide a constant 5V of DC supply from a 230V of AC supply. These 5V DC will acts as power to different standard circuits. It mainly consists of follwing blocks.

■ BRIDGE WAVE RECTIFIER

A rectifier is an electrical device that converts alternating current (AC) to direct current (DC), a process known as rectification. The term rectifier describes a diode that is being used to convert AC to DC. A bridge-wave rectifier converts the whole of the input waveform to one of constant polarity (positive or negative) at its output. Bridge-wave rectifier converts both polarities of the input waveform to DC (direct current), and is more efficient. However, in a circuit with a center tapped transformer (9-0-9) is used.

■ VOLTAGE REGULATOR :

This is most common voltage regulator that is still used in embedded designs. LM7805 voltage regulator is a linear regulator. With proper heat sink these LM78xx types can handle even more than 1A current. They also have Thermal overload protection, Short circuit protection. This will connect at the output of rectifier to get constant Dc supply instead of ripple voltages.

■ ADVANTAGES:

- Economical
- Time efficient
- Most efficient way for urgent notices
- Notice can be easily modified
- Instant SMS acknowledgement
- User friendly
- Man power elimination
- No wastage of paper

■ FUTURE SCOPE :

- Date and time display during periods wherein no message buffers are empty is one such improvement that is well possible.
- Instead of a single authorized user, we can implement this technique for multiple users by giving them an authorized prototype.
- We can add extension hardware such that an acknowledgement message will be received from the receiver end for proper and reliable communication.
- This technique will be more efficient for college and school level as to convey the notice within particular time.

❑ ❑ ❑

DEPARTMENTAL ACTIVITIES

With the cooperation of the staff and students, the department conducted following events :

I) Guest Lectures organised :

Sr. No	Date	Name of Speaker	Subject	Industry/ Institution
1.	23/03/15	Dr. Bharat Chaudhary	Recent Trends in Optical Communication	MIT Pune
2.	13/03/15	Dr. L. M. Patnaik	Research Guidance for Ph.D Students	IISC Banglore
3.	12/03/15	Dr. L. M. Patnaik	Project Guidance for PG Students	IISC Banglore
4.	03/03/15	Dr. D.M Chandwadkar	Motor Drives for Third Year students	K.K.Wagh Inst. of Tech. Nashik
5.	11/02/15	Mr.U.R. Gautam	Technological Achievements in DRDO	DRDO Pune
6.	23/12/14	Dr. Tavildar & Dr. Dandawate	How to write a good Reasearch Paper	VIIT Pune
7.	15/12/14	Prof. Vikas Hajare	Exploring LaTex	CCOEW Pune

II) Workshops/Seminars organised :

1. Inauguration of' KPIT Sparkle was organized in Sept.2014.It is an intercollegiate Project Design Ideas National Level Competition- open for students of all engineering branches. Prizes of worth Rs. 10 Lakhs will be distributed. The first round of the presentations was conducted in Feb 2015. This event was coordinated by Prof. A. S. Patil.

2. "IET Mini Project Competition " was organized at CCOEW on 28 Mar 2015. Total 55 groups from pune university and other universities participated in competition. 18 Judges were called to judge the event from industry and institutes. The event was co-ordinated by Prof. Khade.

3. IM workshop on "Enterpreneur Development" was arranged on 22nd and 23rd February 2015. The event was co-ordinated by Dr. Prachi Mukherji(HOD ENTC) and Prof.Ruta Sahasrabudhe.

4. One day workshop on Audio Signal Processing by dr. Sandeep Phatak was arranged for ME E&TC students on 4th March 2015. Prof. M.S.Joshi coordinated the event.

5. Intra department Mini project competition was arranged for TE students on 25th March 2015 by Prof. Dube and team.

6. Intra department Project competition was arranged for BE students on 11th March 2015 by Prof. Patankar and team.

III) Industrial Visits Organised :

Company Name	Date	Visit Co-ordinator
Thyssen Krupp, Pune	7/3/2015	Prof. V.A.Sisale
CMET, Pune	16/3/2015 to 19/3/2015	Prof. M.V.Pathade
BSNL, Pune	17/3/2015 to 20/3/2015	Prof. S.R. Choudhary, Prof. H.V.Khedlekar
Balchitrawani, Pune	18/3/2015 to 19/3/2015	Prof. M.A.Dixit, Prof. A.R.Fukane

IV. The details of department faculty invited as resource person for Workshops / Seminars / Conferences are as follows:

1. Dr. P. Mukherji

- Invited to deliver a lecture for Women's day celebration , "Role of Women in Engineering and technology" on 14th March 2015 at IETE , Pune.
- Session chair for IEEE INDICON 2014 on Emerging trends and Innovation in Technology on 12th December 2014 at YASHADA, Pune

2. Prof. A.S. Patil

- Judge for National level technical event TECHNO2015 at MMCOE, Puen, March 2015.

3. Prof. S. N. Ohatkar:

- Expert lecture on "Information Theory and Coding Techniques" at Jawantrao Sawant College of Engg , Pune on 25/03/2015.
- Judge at " IET Mini Project Competition "at CCOEW ON 28 Mar 2015.
- Judge for ePGpex2015 (PG student project Exhibition) at AISSMS on 29th and 30th May 2015.

4. Prof N.G.Palan

- Judge at " IET Mini Project Competition "at CCOEW on 28 Mar 2015

5. Prof. M.A. Dixit

- Resource person at Faculty Orientation workshop on revised syllabus for the subject "Computer Network" at AISSMS, IOIT, Pune from 11th -13th June 2015

6. Prof. A.R. Khedkar

- Resource person at Faculty Orientation workshop on revised syllabus for the subject "Microwave Engineering" at RSCOE, Pune from 11th -13th June 2015

7. Prof. S. Mangale

- Resource person at MATLAB workshop at D.Y. Patil, Pimpari
- Resource person at MATLAB workshop at CCOEW, Pune

8. Prof Ravikant Suryawanshi

- Judge at "IET Mini Project Competition", at CCOEW on 28 Mar 2015.

V. Patents Filed:

- Prof. P. V. S. Shastry Filed a Indian Patent on the topic *'System and method for Implementation of Advanced Encryption Standard Algorithm using Systolic Architecture'*. Application no: 3137/MUM/2014 dated 1st Oct 2014.

VI. The Details of Various Faculty Development Programs, Workshops and Conferences Attended by Staff Members are as follows :

Sr. No.	Name of the Staff	Title/subject	Seminar/ Conference Workshop STTP	Date	Venue
1.	Prof. S.R. Choudhary	Faculty Orientation workshop for B.E. E& TC revised syllabus For subject, "Electronic product Design."	FOW	11 -13 June 2015	PCCOE, Pune
2.	Prof. M.A. Dixit	AICTE sponsored two weeks SDP on Soft computing	SDP	1-13 June 2015	SCOE, Pune
3.	Prof. M. K. Pote	Faculty Orientation workshop for B.E. E& TC revised syllabus For subject " Microwave Engineering "	FOW	11 -13 June 2015	RSCOE, Tathwade
4.	Prof. M. V. Pathade	Faculty Orientation workshop for B.E. E& TC revised syllabus For subject "Digital Image processing"	FOW	11 -13 June 2015	AISSMS, Pune
5.	Prof. A.S. Khade	Faculty Orientation workshop for B.E. E& TC revised syllabus For subject "VLSI design and technology"	FOW	11 -13 June 2015	SCOE, Pune
6.	Prof. G.R. Padalkar	Faculty Orientation workshop for B.E. E& TC revised syllabus For subject "Digital Image processing"	FOW	11 -13 June 2015	AISSMS, Pune

Sr. No.	Name of the Staff	Title/subject	Seminar/ Conference Workshop STTP	Date	Venue
7.	Prof. V.A. Sisale	Faculty Orientation workshop for B.E. E & TC revised syllabus for subject "PLC and Automation"	FOW	11 -13 June 2015	MIT Academy of Engin-eering, Alandi
8.	Prof. P. Hirawe	Faculty Orientation workshop for B.E. E& TC revised syllabus For subject, "Computer Networks"	FOW	11 -13 June 2015	AISSMS, IOIT, Pune
9.	Prof. S.S. Vanarase	Faculty Orientation workshop for B.E. E& TC revised syllabus For subject, "Computer Networks"	FOW	11 -13 June 2015	AISSMS, IOIT, Pune
10.	Prof. P. Waghmare	Short course on "Detection Theory for communications and signal processing" organized by IIT Kanpur & BSNL IIK Telecom center of Excellence	Short course	27th-29th april 2015	IIT , Kanpur
11.	Prof. K.S. Joshi	Faculty Orientation workshop on "Multimedia and Adaptive signal processing"	FOW	11 -13 June 2015	COEP, Pune
12.	Prof. R. Suryawanshi	Faculty Orientation workshop for B.E. E& TC revised syllabus For subject "VLSI design and technology"	FOW	11 -13 June 2015	SCOE, Pune
13.	Mrs. K. Rajawade	National workshop on system on chip design for DSP applications	Workshop	21-25 January 2015	NBNSS-COE Pune

Puzzle Answers :

1. 2 Cakes

   How?

   At each bridge you are required to give half of your cakes, and you receive one back. Which leaves you with 2 cakes after every bridge.

2. The question you should ask is "If I ask the other guard about which side leads to heaven, what would he answer?". It should be fairly easy to see that irrespective of whom do you ask this question, you will always get an answer which leads to hell. So you can chose the other path tocontinue your journey to heaven. Here is the explanation if it is yet not clear. Let us assume that the left door leads to heaven.

   If you ask the guard which speaks truth about which path leads to heaven, as he speaks always the truth, he would say "left". Now that the liar , when he is asked what "the other guard (truth teller) " would answer, he would definitely say "right". Similarly, if you ask the liar about which path leads to heaven, he would say "right". As the truth teller speaks nothing but the truth, he would say "right" when he is asked what "the other guard(liar) " would answer. So in any case, you would end up having the path to hell as an answer. So you can chose the other path as a way to heaven.

VII. The Details of Papers Presented by Staff Members are as follows:

Sr. No.	Name of the Author	Title of the Paper	Name of the Journal/ Proceedings	Volume & Issue	Year of Publication
1.	Prof. A.S. Patil	Classification of Emotion from EEG using KNN classifier	International Journal of Advance Science , Engineering and Technology	Vol-3, Issue-2	April 2015
		Performance of KNN classifier for Emotion detection using EEG signals.	IEEE conference ICCSP, 2015, Banglore.		2015
2.	Prof B. V. Pathak	Analysis of Emotional State of a Person and its Effect on Speech Features using PRAAT soft ware	International Conference on Computing,Communi-cation, Control and Automation, PCCOE, Pune		26-27 Feb 2015
3.	Prof. S. N. Ohatkar	"Hybrid Channel Assignment Technique using Particle Swarm Optimization for Cellular Network"	18th IRF International Conference on Electrical, Electronics and Communication and Computer Engineering, Pune,	ISBN : 978-93-84209-82-7	11th Jan 2015
		"Hybrid Channel Assignment Technique using Particle Swarm Optimization for Cellular Network"	International Journal of Electrical , Electronics and Data Communication	Vol -3, Issue-3 ISSN:232 0-2084	March 2015
4.	Prof. S. R. Choudhary	Performance of spatial multiplexing Diversity and Combined Technique for MIMO-OFDM System	International Journal of Mobile Network Communications & Telecommunication & Telematics	VOL 4, No -5 10.5121/IJ MNCT.2014. 4505	October 2014
		Hybrids MIMO - OFDM System With Application To Image Transmission	International Conference on Communication Information and Computing Technology(ICCICT-2015),(IEEE Explore)		15th -17th Jan 2015
5.	Prof. M.A. Dixit	Video Steganography	ICPC2015 ,Pune		8-10 January 2015
		Intelligent control system for Sericulture	ICPC2015 ,Pune		8-10 January 2015

STUDENTS' ACHIEVEMENTS

Heartiest Congratulations
Rankers of academic 2014-15 (sem 1)

SE	*TE*	BE
Vedanti Joshi	**Samrudhi Kulkani**	**Anuja Jakhade**
82.40%	***77.60%***	**73.20%**



RANK	NAME	% MARKS
	SECOND YEAR	
1	Joshi Vedanti Sanjay	82.40
2.	Chinmayee Kaustubh Bhanu	77.33
3.	Mahajan Kalyani Ganesh	76.93
4.	Magdum Divya Deepak	76.67
5.	Patil Mansi Anil	75.73
	THIRD YEAR	
1.	Kulkani Samrudhi Vilas	77.60
2.	Jayasri S	76.40
3.	Kulkarni Radhika Ravindranath	76.13
4.	Kundu Lawani Nanda	73.87
5.	Mali Pooja Krishna	73.47
	FINAL YEAR	
1.	Jakhade Anuja Arun	73.20
2.	Shinde Megha Dnyaneshwar	72.93
3.	Pathak Meghana Vikas	72.67
4.	Paranjape Ankita Abhijeet	72.27
4.	Prachi Shreeniwas Sovani	72.27
5.	Kulkarni Amruta Kiran	72.13

- Amruta Kulkarni is selected as the Best Outgoing Student of the year.
- Yashaswi Menghmalani and Mrunal Joshi got selected for MS in Purdue University

- Amruta Kulkarni,Gargi Bhandari, Neha Raste presented a paper at IEEE Conference and it is ranked first in the domain Artificial Intelligence. They have also presented a paper in International Journal of Science Engineering and Technology.
- Neekita Bhide,Rajaswini Ukarande and Sanika presented a paper at IEEE Conference.
- *Amruta Kulkarni, Gargi Bhandari, Neha Raste filed a patent on 'Intelligent Sericulture System using zone-based optimal cascade control of combined biotic and a-biotic data' Application no: 611/MUM/2014 dated 18th Feb 2015*
- Approximately 132 (UG + PG) students of our department have been placed in various prestigious companies in this academic year.

Technical competitions

- Rasika Dastane of SE won 1st prize in National level Pre-Summit Workshop Envoyage at CCOEW
- Neha Shinde of TE won 2nd prize in Techquiz (Bharatiyam 2015) event at BharatiVidyapeeth University College of Engineering
- Aishwarya Wagh of TE won 2nd prize in Projectile 3D blocking competition at CCOEW
- Rashmi Tayade of BE won 1st prize in Internal project competition at CCOEW
- IET Project Competition winners:- Himali Bothara,Apurwa Bhosale, Tejal Gulati, Komal Londhe, Neha Malpure, Swapnagandha Kumhar

Mini Project Competition winners(Intra Department):-

1. Malvika Panicker, Tanzeela Mitha, Siddhi Ojha
2. Apurva Bhosale, Himali Bothra, Tejalkaur Gulat
3. Shamika Dalvi, Rucha Deshmukh, Ankita Khedekar
4. Shreya Gupta, Pradnya Thakar, Aishwarya Thalwar
5. Chandratre Samruddhi, Deshmukh Vaidehi, Dudhate Snehal

BE Project Competition winners(Intra Department):-

1. *Amruta Kulkarni,Gargi Bhandari, Neha Raste*
2. *Aarti Munjawade , Apurva Rohamare,Minal Pathak*
3. *Manognya Varanasi, Rashmi Tayade, Prerna Kumbhare*
4. *Madhura Kulkarni,Nakita Oza, Yeshaswi Menghmalani*

Sports Achievements

- Kalyani Oak won 3 gold and 3 silver medals in swimming at inter- engineering meet and Pune university tournaments.
- Cummins College Sports Team won Overall Championship at ZEST held by COEP. Following students form E&TC department are the part of various sports teams:-

  Namita Dandekar , Sukhada Vadabhat, Ketaki Bhatkhande, Sima Khandve, Shweta Malve, Pranoti Awalekar, Geetanjali Sonawane, Priyanka Thakare, Ruchika Chavanke, Shraddha Potkar, Prerna Chavan, Christiancy Kharkrang, Shruti Kavishvar, Isha Purandare, Ishmita Singh, Aparna Jaiswal, Ome Moyong, Pratiksha Chatur, Komal Londhe, Snehal Dahale, Prajakta Shelar, Prajakta Mangave, Anjali Panditkar, Kalyani Oak, Sharadini Solankar

■ **Cultural Achievements**

- Roshani Pawar, Kavita Shah, Prajakta Mangave won 1st Prize at Inter-collegiate group Dance Competition at BMCC.
- Aarti Gangurde won the first prize at University Level Dance Competition at BMCC.

❑ ❑ ❑

Puzzle

1. You are on your way to visit your Grandma, who lives at the end of the valley. It's her anniversary, and you want to give her the cakes you've made. Between your house and her house, you have to cross 5 bridges, and as it goes in the land of make believe, there is a troll under every bridge! Each troll, quite rightly, insists that you pay a troll toll. Before you can cross their bridge, you have to give them half of the cakes you are carrying, but as they are kind trolls, they each give you back a single cake.

   How many cakes do you have to leave home with to make sure that you arrive at Grandma's with exactly 2 cakes?

2. You are standing before two doors. One of the path leads to heaven and the other one leads to hell. There are two guardians, one by each door. You know one of them always tells the truth and the other always lies, but you don't know who is the honest one and who is the liar.

   You can only ask one question to one of them in order to find the way to heaven.

   What is the question?

Crossword Answers

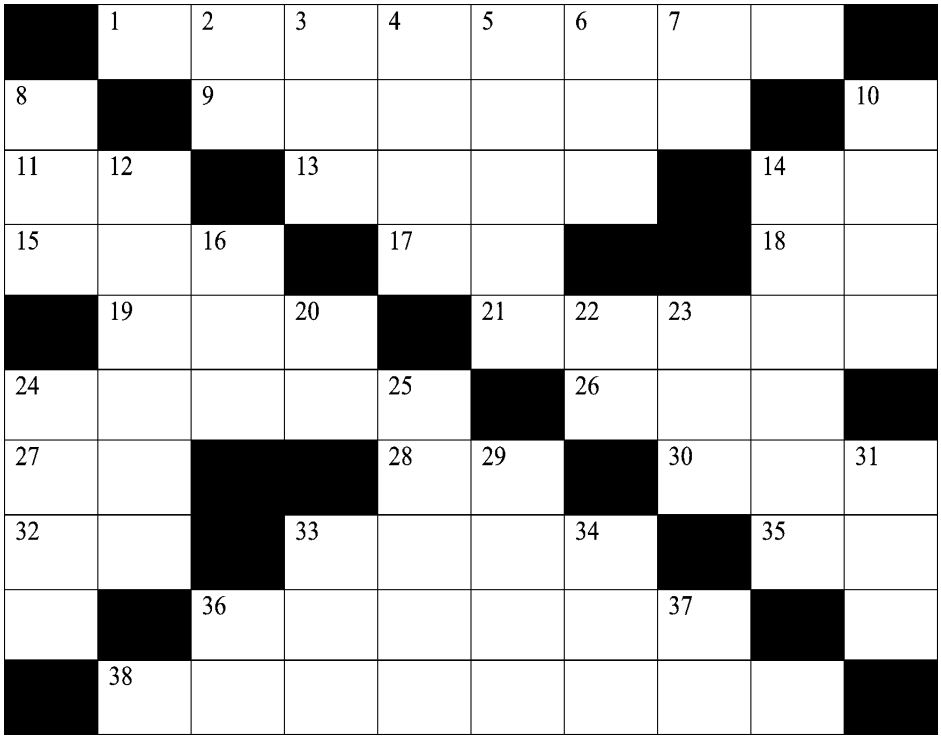
ACROSS

* 1: Harmonic * 9 : Diodes * 11 : DC * 13 : Plot * 14 : CO * 15 : Ohm * 17 : ER * 18 : YR * 19 : Aha * 21 : Space * 24: Cross * 26: III * 27: EG * 28: CH * 30 : EEL * 32: LE * 33 : Root * 35 : SA * 36 : Parrot * 38 : Antennas

DOWN

* 2: AD * 3: RIP * 4: Mole * 5: Odors * 6: Net * 7: IS * 8: ADO * 10: Core * 12 : Charge * 14 : Cycles * 16 : Mho * 20: AS * 22: PI * 23 : ALE * 24 : CELL * 25 : Score * 29 : Horn * 31 : LAS * 33 : Rat * 34 : TON * 36 : PN * 37: TA

Crossword



ACROSS

1 : Multiple of Fundamental Frequency.
9 : Types of tubes used as detector.
11 : Rectifier output current: Abbr.
13 : To make a curve (graphically).
14 : Chemical symbol for Cobalt.
15 : Resistance unit.
17 : Suffix denoting one who does.
18 : Unit of time: Abbr.
19 : Exclamation.
21 : Charge developed in Vaccum tube.
24 : A short circuit may be caused by _____ in wires.
26 : Sick.
27 : Middle Eastern Country: Abbr.
28 : Chapter: Abbr.
30 : Snake-like fish.
32 : The: Fr.
33 : Effective AC voltage equals _____ -mean-square voltage.
35 : Continent: Abbr.
36 : Kind of bird.
38 : Devices used to pick up radio signals.

DOWN

2 : Public notice.
3 : Tear.
4 : A burrowing animal.
5 : Scents.
6 : Total profit.
7 : Exists.
8 : Fuss.
10 : Part of Transformer.
12 : Stored electric energy.
14 : Periodic changes in values.
16 : Conductance unit.
20 : Like.
22 : The correct formula for inductive reactance is: XL=2?FL.
23 : Beverages.
24 : Devices used to convert chemical energy into electrical energy.
25 : Mark with Scribe.
29 : Part of a loudspeaker.
31 : Relation of current to voltage in inductive circuit.
33 : Rodent.
34 : 2000 pounds.
36 : Practical nurse: Abbr.
37 : Cathode-ray tubes pin connection: Abbr.

TE Students' visit to CMET

BE Students' Visit to
BALCHITRAWANI

BE(PLC) Students' Visit to
THYSSENKRUPP

BE Project Exhibition

IET Mini Project Exhibition