# The Communique

## A Quarterly News Magazine
## Second Issue

# The Communique

**SPECIAL POINTS OF INTEREST:**

- ECE students lead to finals of CANSAT 2016
- Industrial trip under ACS chapter
- New Technology at a glance
- Student won prizes in Sports

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*"The earth is what we all have in common, we all should protect it"*

## CEC team takes part in Formula SAE competition in USA

CEC team created history by being a part of Formula SAE International competition. The competition was held at Lincoln Nebraska USA. Approximately 80 teams from all over the world participated in the event. A team of 11 students from CEC, Landran went to participate in the event.

CEC team showcased immense talent and technology in the competition. **Mini f1 car** is a



small formula 1 racing car with an open top which is used for Formula SAE (Society of Automotive Engineers). Team of students designed, built and tested the car based on a series of rules, the purpose is to ensure track safety and promoting clever problem solving. The team was thankful to CEC for the opportunity given.

## Earth day celebrated at CGC, Landran



In order to sensitize students and faculty in the college towards nature Earth Day was celebrated on April 22 in Chandigarh Engineering College. Satnam Singh Sandhu Chairman CGC said that the effort is to promote the idea of ecology. To commemorate the great day a tree plantation campaign is organized at the campus every year, he added.

Students raised slogans and carried placards displaying various messages for protecting Earth. A lecture was delivered on the occasion by Dean Student's Welfare, Rajesh Hooda, highlighting various measures to safeguard the earth. He mentioned that it is really important for all of us to be more aware of environmental problems so that the current as well as future generations will be living in peace and harmony with the Mother Nature. Rashpal Singh Dhaliwal, President, CGC said that over the centuries, we have mercilessly utilized and depleted the Earth's resources.

Heavy amount of deforestation and death of rivers due to dumping of industrial waste has lead to global warming. We should move our step forward in saving the Earth.

# Brilliant efforts of ECE students lead to finals of CANSAT 2016 at Burkett, USA



In a remarkable achievement CGC teams - CECians and TRBO entered the final of CANSAT 2016 competition. In the finals held at USA the team stood eleventh among forty teams that contested in finals. In qualifiers the team bagged 28th and 35th

rank among 71 teams from different countries. CANSAT is an international level competition organized every year jointly by NASA, AAS and AIAA with different challenges. The combined efforts of team CECians resulted in filing of two patents for 'Novel design of CANSAT containing container and glider for measuring atmospheric conditions' and 'Unfolding mechanism for large wings'. Team members of CECians- Lakhanpal Singh, Eknoor Kaur, Karan Garg, Gaurav Sareen, Hitesh Vohra and Navpreet Singh and Team members of TRBO - Jashandeep Kaur,

Navjot Kaur, Gaurav, Pulkit and Vatan have worked very hard to reach the finals and getting chance to go to USA to compete.

Prof. Dr. Paras Chawla, Dr. Ruchi Singla HOD, CEC and Prof. Dr. B. Pattanik, Director Principal, CEC mentored the teams and supported them in every aspect. S. Satnam Singh Sandhu, Honorable Chairman, CGC and Mr. Rashpal Singh Dhaliwal, Honorable President, CGC appreciated the team work and blessed both the teams for getting further success at CANSAT. Prof. Dr. Vikas Singh, Campus Director said that "it's an honor for us that our students are doing excellent and world is now recognizing their talent."

# ECE Department holds seminar on spirituality and ethics in workplace

Department of Electronics and Communication held a seminar on spirituality and ethics in workplace in the month of July. Sushil Kumar Likhi while giving his presentation said that the prayer that reforms the sinner and heals the sick is an absolute faith that all things are possible to God, — a spiritual understanding of Him, an unselfed love. He mesmerized the audience with his thoughts and was well appreciated by one and all. He fur-

ther said that God is incorporeal, divine, supreme, infinite Mind, Spirit, Soul, Principle, Life, Truth, Love… Giving his view on role of humans in life he said that they are also intended to express the nature, essence and wholeness of Deity. God created man in his own image and god is the real employer, he said. Talking about human growth in life he expressed his view that promotion comes neither from the east, nor from the west, nor from the south it is God who is the

judge. The department HoD Dr Ruchi Singla appreciating the whole exercise said that it has been a stress buster and would certainly help us in moving to find new paths and avenues in life for gaining ultimate solemnity and spiritual bent. Satnam Singh Sandhu, Chairman, CGC said that the faculty in CGC is given varied experiences to enhance their bent towards gaining better values in life. Rashpal Singh Dhaliwal, President, CGC was all appreciation for the effort and said that the college management would always help the faculty in their overall development by holding more such events.

# CSE faculty presents paper in International Conference

Iqbaldeep Kaur Associate Professor in Department of CSE presented a paper on , "Comparative Analysis of Software Engineering Paradigms " at 3rd International Conference on "Computing for Sustainable Global Development" held at Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi (INDIA) . She is a regular researcher and has several research projects in her name.



## UPCOMING EVENTS

**Academics:**
**August 5-7**
**WikiConference India 2016  by CSE Department**

**September:**
**Guest Lecture on Big Data by IT Department**
**Guest Lecture on IPR by Applied Sciences Department**
**IEEE Student Chapter by CSE Dept.**
**ACM Student Chapter by CSE Dept.**
**Sports**
**August:**
**Inter college Badminton Meet**
**Inter College Table-Tennis Meet**

# ARTIFICIAL INTELLIGENCE: The New World Technology-Dr Amit Verma

A team led by Dr Amit Verma recently filed a patent on Artificial Intelligence. Sharing his research he said that it is going to revolutionize the computing world. All the technology giants are investing in virtual assistants like Apple's Siri, Microsoft's Cortana and Google's Google Now.



Dr Amit Verma

Metro Manager is an assistant which aims at making the navigation easier for its users. It is specifically designed for Delhi Metro. It will feature a dynamic navigation virtual assistant which will help commuters of Delhi Metro to navigate and travel around the complex map of the Delhi Metro easily with No connectivity access. Current day GPS loses signal underground and at high speed. Even the service carrier signals lose connectivity to our devices. Metro Manager will enable users to navigate and will offer navigation assistance without using any of these signals. It uses artificial intelligence to make its calculations thereby eliminating the need of signals.

As per Ministry Of Tourism, Government of India - Delhi has 20.6 million domestic and 1.81 million foreign tourists daily. On an average, Delhi Metro fares about 2.5 million passengers and highest till date is 2.9 million passengers. These statics reveal how we can assist such large number of people and make there commutation feasible around the complex map Delhi Metro which is getting complex day by day by launch of new lines and stations in Phase-3, making it one of the largest Metro Services in the world. As for daily visitors it will help them by reminding them of their junction terminals, platform numbers and destination.

The application will also save the frequent routes taken by the user determining favorites, provide estimated fare and estimated time predictions. It will also determine the surge at various metro stations, thus enabling the user to navigate around easily in the most convenient way possible by saving and retrieving small amounts of compressed data as and when possible with Internet Connectivity.

# Mechanical Engineering Dept. holds subject domain FDP

Mechanical Engineering Department of Chandigarh Engineering College organized one week subject domain FDP on "Engineering Mechanics". The FDP was designed with focus on the subject "Engineering Mechanics" which is the base of no of Mechanical Engineering subjects like Strength of Materials, Theory of Machines, Fluid Mechanics, Elements of Mechanical Engineering, Machine Design and Mechanical Vibration. Total 22 faculty members from the institute and CGC College of Engineering, Landran participated in the program.



The participants were acquainted with in depth knowledge of these subjects.

Senior and experienced faculty from the department and retired Professor from PEC University of Technology, Chandigarh delivered their expert and informative lectures on the respective subjects.

## CEC ATHLETIC (WOMEN TEAM) BAGS 3RD PLACE AND CEC VOLLEY BALL (MEN TEAM) WINS 2ND PLACE IN PTU INTER COLLEGE SPORTS TOURNAMENT

In a brilliant display of talent and agility women team of Chandigarh Engineering College won third place in PTU Inter College Athletic Tournament. Niharika Gupta won gold in discus throw and Manjot Kaur won silver medal in the same contest. Several colleges of PTU took part in the competitions

held at RIEIT, Rail Majra.

In the triple jump competition Harleen Ahuja won bronze medal. Neeharika won silver medal in Javelin throw competition. In Shot Put Manjot Kaur bagged the silver medal.
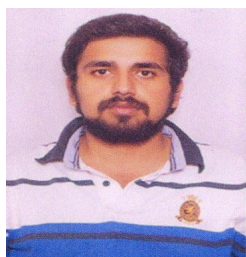
**In PTU Inter College Volley Ball Tournament held** at RIEIT,

Rail Majra men's team of CEC, Landran bagged the second position. In a keenly contested match Balkaran Singh and Ashish Thakur played exceedingly well to keep the team in contest till the very end.

In the group stages the team won three matches before reaching the finals.

# Rachit stands 1st in debate, 2nd in Symposium at IIT Ropar

In a scintillating display of right use of logics and exquisite display of vocabulary Rachit Chhabra student of CSE Department bagged the first position in a competition held at IIT Ropar.

In a keen contest he excelled to win.

Sharing his ecstasy he exclaimed that it is his habit for reading issues of national and international acclaim that helped him in finding the right pitch. "I am thankful to my teachers who always guided me in the right direction." The col-

lege management appreciated the victory of Rachit. He has been also an active member of AISEC an international exchange organization. It is exposure I get by working at various levels that helped me win. I feel indebted to the college., he said.

# Income Tax Saving Tips by Sanjay Sharma

'Tax savings' to most people is life insurance, PPF, NSC and equity-linked savings scheme, among others, that qualify for tax deduction under Section 80C of the Income-Tax Act. An individual can claim tax deductions of up to Rs 1.50 lakh (One Lakh Up to AY 2014-15) under 80C. However, there are other lesser known avenues that offer additional tax breaks to individuals. They are not widely discussed. These include having a special dependant, paying rent to parents, owning a house in another city, and so on. All those

living in their parents' house must know that if you pay a monthly rent of Rs 25,000 p.m. to your father you will be taxed for only Rs 2.1 lakh. To retired parents this income stands tax free. Charitable contributions are deductible up to 10% of your income under Section 80G. Depending upon the institution to which the donation is being made, the deduction can be either 100% or 50% of the amount donated. Similarly, If you have contributed any amount to a recognised political party, you are eligible to claim a tax deduction ranging from 50

percent to 100 percent of the amount under **Section 80GGC** for individuals and **Section 80GGB** for corporate organizations. Deduction under section 80C is available to an individual in respect of the tuition fees of children with an overall limit of Rs 1.50 lakh (One Lakh Up to AY 2014-15). The deduction, however, is not available for capitation fees/donation collected by the school or college. You can get a tax deduction of maximum Rs 25,000 on the health insurance premium for self and family.

Sanjay Sharma, Manager, Finance

# Diction, Context and Understanding  By Krishan Kant

One must understand the context of a talk in order to pass on the right message. Communication involves encoding, choosing a medium of communication and decoding. It is imperative for the communicator to use not only right diction, context, syntax and body language but also understand the level of the receiver. Effective communication involves minimizing potential misunderstanding that comes from ambiguities and overcoming barriers of communication.

A sentence "I saw him with binoculars" will be understood differently by different readers or listeners. The ambiguity in this sentence is clear. Similarly, sentences like I rode the horse in white pyjamas, old men and women go for movies, flying planes can be dangerous and they are hunting dogs are all ambiguous and add lots of misunderstanding and fun to the language. Words often confused include aisle and isle, affect and effect, aloud and allowed, principle and principal, altar and alter and many more. Only an expert user of words will be able to give right word at the right place.

Use of jargons is another major glitch. Common examples of business jargons include use of phrases like bang for the buck which means, getting the most for one's money, sweat equity means getting a stake in the business instead of pay and chief cook and bottle which means washer i.e. someone who holds many responsibilities. Some common examples of police jargons include expressions like suspect meaning someone the police believe to have committed a crime, code eight stands for an officer needing immediate help; code eleven which means the individual or the criminal is at the scene of the crime. These jargons may be correct but an ordinary reader or listener is unable to understand their meaning as it is only a peer group that is able to know the right context in which these are used. When someone says he has assumed room temperature it actually means an individual has died. While giving an oral message or a non-verbal message right use of body language is very important. For good healthy interaction it is very important to calm your nerves first and try to build a cordial relation with the person you want to communicate with. To connect instantly, shake hands. A firm handshake gives a sound message for building a relation. Smile stands as a big confidence builder. To stimulate good feelings in a stranger, smile. A pleasant smile invigorates a talk and even a relation. People love strangers who give an ear to them. In order to increase participation, always show that you are listening. As a communicator, one doesn't have to only think about *what* he has to say, but *also make decision on how* he says it is. Well organized ideas expressed in complete and coherent sentences are not enough. Style, tone and clarity are equally important. One must keep in mind that whatever is conveyed is in right context for the audience. Perfect analysis of one's audience and purpose is thus very important. The objective of the conversation, the context in which it is being done, and who will be receiving it must be kept in mind.

(Appeared in Daily Post, E-Newspaper)

## Hilarious Technical Slang

**Shareware Girl**
"She is the shareware girl in the office". It is a company jargon for the coolest girl in the organization. It neither has a sexual overtone nor any sarcasm. It is used with positive intentions.

**Chillaxin**
It is a popular slang used these days for chilling and relaxing, as in "Hey what's up? Nothing, just chillaxin."

**Fat finger**
"Oh no, I failed to recognize the mistake, I would have fat fingered it." The term refers to a mistake while typing on a computer.

**Chips and salsa**
Chips stand for computer hardware and salsa for software. For example, you might come across a tech support person using it, "Firstly figure out the problem, whether it is with the chip or the salsa."

**PITA (Pain in the Ass)**
*(Pronunciation: pee-tah)*
It used primarily while texting, online chat, e-mail, messaging, posts, etc. As in "What a PITA", it is basically an acronym.

**ID10T (I-D-TEN-T)**
It basically means idiot. This word is more common for the person in tech support dealing with customers over the phone or online. For example, "I have an ID10T online".

**Seagull manager**
It is referred to managers who flies in, shouts on top of his voice, fires words at everything and then walk away.

**All your bases are belong to us**
These words eventually emerged as a mainstream gaming joke because of seriously bad Japanese to English interpretation. This line is from a Japanese video game called Zero Wing Sega Genesis.

**Cappuccino cowboy**
This term refers to men and women from suburbs that commute to the city every day for working. They just prefer to have coffee or some other roadie stuff on the way to work.

**Angry garden salad**
Poorly designed website GUI with inappropriate coding is addressed with this slang. (On clicking one thing some irrelevant opens)

**Word-of-mouse**
A typical gossip going viral on the internet, through blogs, posting, tweets or e-mail.

**Zen mail**
It is an e-mail arriving without a text in its message body.
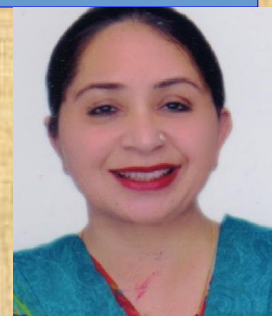(http://www.moweble.com/list-of-hilarious-technical-slang.html)

# A Research Saga by Dr Bikrampal Kaur

Professor Dr. Bikrampal Kaur of IT Department presented a paper in IEEE International Conference on Computer Graphics, Vision and Information Security (CGVIS) Hybrid Filter with Wavelet Denoising and Anisotropic diffusion Filter for Image Despeckling. Abstract – SAR imaging is an efficient tool for retrieval of useful information about the surfaces of earth and various other planets as well. The synthetic aperture radar (SAR) generates severely degraded images due to a form of multiplicative noise called speckle. It is produced by the random interference of the electromagnetic waves which are backscattered because of the roughness of imaged surface. Numerous filters were developed which helped in enhancing the image quality to some extent. However, recent filtering techniques which were based on non local image modelling technique, proved to build way better filters which resulted in despeckling the images without tampering with its edges or oversmoothing the images. This paper introduces one such filtering technique which is based on the wavelet transformation followed by anisotropic filtering.

The results are found and compared for Peak Signal to Noise Ratio, Coefficient of Correlation and Equivalent No of looks .

Dr. Bikrampal Kaur
Professor
Department of IT

# Monika Sharma presents paper in ICSETI-2016

Monika Sharma Assistant Professor Applied Sciences presented a paper in an International conference (ICSETI-2016) on Synthesis of 3,4-Dihydropyrimidine-2-(1H)-ones (DHPMs) by using different catalyst results in an excellent yield. It was held at CT Group of Institutions Jalandhar, Dr PS Bedi Director CT Group appreciated the contribution made by Ms Monika to the conference.

In the research Comparative study of different catalysts for the efficient synthesis of (DHPMs) has been done to increase the yield under the same temperature conditions and time. She used different metal catalysts in the synthesis of 3, 4-dihydropyrimidine-2(1H)-ones which increases the yield of the product.

While comparing different catalysts, it is found that Cerium trichloride is the best amongst all.

The yield with this catalyst is 75% and it maintains the original color of the product. Which are having various types of pharmacological activities such as antibacterial, antifungal, anti-inflammatory antihypertensive and antitumor.

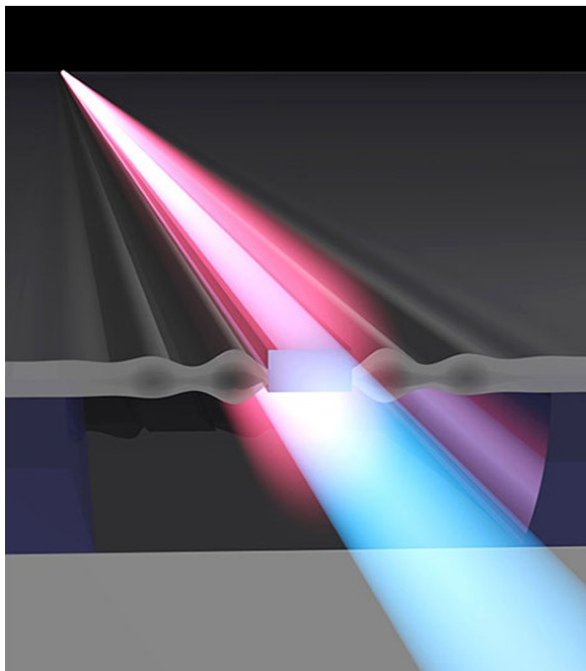# Applied Sciences students on industrial trip under ACS Chapter

Department of Applied Sciences took forty students to Guru Gobind Singh Thermal Plant, Ropar on April 1st, 2016 under ACS student chapter which was recently opened in the department. The students showed their interest in the working of the Thermal Plant and also showed their motivation by interacting with the staff of the plant. Ms Monika Sharma and Ms Arshdeep, Assistant Prof..s from the department accompanied the students to the thermal plant. She informed that ACS student chapters are organizations for undergraduate chemical science majors. Members participate in a wide range of programs and activities that enhance their college experience and prepare them for successful careers. Dr Harish Kumar, HoD, Applied Sciences appreciated the efforts of the department faculty and congratulated them on arranging an educational trip for the betterment of the students. Dr. B Pattnaik Director Principal said that such initiatives help in progressive research.

# New technology at a glance

**Physicists Amplify Light Using Sound on a Silicon Chip**



A team of physicists has discovered a way to greatly boost the intensity of light waves on a silicon microchip using the power of sound.

In a study to be published in the [journal Nature Photonics](#), a team led by Peter Rakich describes a new waveguide system that harnesses the ability to precisely control the interaction of light and sound waves. This work solves a long-standing problem of how to utilize this interaction in a robust manner on a silicon chip as the basis for powerful new signal-processing technologies.

The prevalence of silicon chips in today's technology makes the new system particularly advantageous, the researchers note. "Silicon is the basis for practically all microchip technologies," said Rakich, who is an assistant professor of applied physics and physics at Yale. "The ability to combine both light and sound in silicon permits us to control and process information in new ways that weren't otherwise possible."

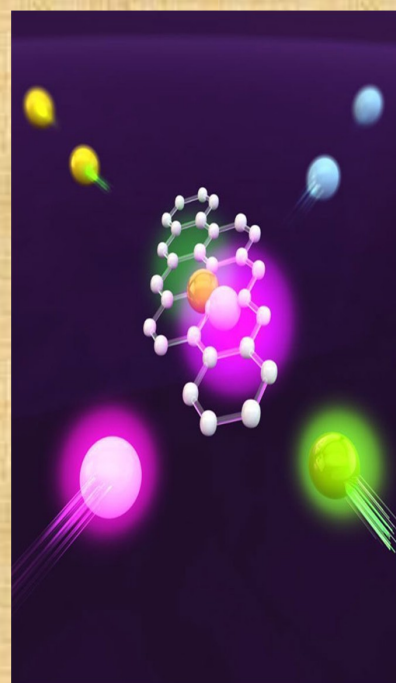## Development of Nano-Optical Transistors for a Photonic Computer

A mediator between particles of light: An organic molecule mediates the interaction between a control and a probe beam, which are indicated by the magenta or the green spheres in the foreground. Here the energy of the two light beams changes when they leave the molecule. This is represented symbolically by the yellow and the blue sphere in this illustration.

*Researchers show that a single molecule allows a beam of light with a few photons to be controlled – a step towards the photonic computer.*

The Jedi knights of the Star Wars saga are engaged in an impossible fight. This does not result from the superiority of the enemy empire, but from physics because laser swords cannot be used for fighting like metallic blades: beams of light don't feel each other. Until now, for a light beam to perceive another one, it has required a large chunk of material as intermediary, and very intense light. A team at the Max Planck Institute for the Science of Light has demonstrated for the first time a mediation process with only a single organic molecule and just a handful of photons.

# EVENTS AT CEC

## PLACEMENTS GALORE AT CEC





**154 companies recruit 1,800 students at CGC**



FAREWELL FOR ECE STUDENTS



CSE-CEC committed to service of humanity



**EXCELLENCE AWARDED**

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