JIT VERVE

A Ray of Hope

20 March, 2015

A RAY OF HOPE

From the Director's Desk

It is a matter of great pleasure to know that the third issue of the Institute Newsletter is ready. The Newsletter will serve as an interface between the Institute and outside world. It provides information about the academic activities organized in the Institute. Information about co-curricular activities held during recent past is also shared.

The Institute was established in the year 2010 by Lotus Educational society with the prime objective of providing technical education at under graduate and post graduate levels.

I am happy to note that various initiatives are taken by the faculty to disseminate knowledge by organizing conferences, training programs and workshops. Expert lectures are also organized by various departments time to time to keep abreast with the latest developments in the field of science and technology. The Institute has done good job in the past and able to produce quality Engineers and Technocrats capable of providing leadership in all spheres of life and society. Needless to say our commitment to further enrich the quality of education will be our constant endeavor. The demand across the country for a vibrant technical human resource has made us committed for the same. It is for all of us to do hard work to make the Institute known globally.

Best wishes for everyone for forthcoming festive season

From the Dean's Desk

I am glad to know that B. Tech I Year Group is bringing out its newsletter 'JIT VERVE. The newsletter clearly reflects that the Department's functioning continues to be vibrant. The fresh faces in engineering Stream and the dedicated faculty have every reason to be proud of their achievements in curricular and co-curricular fields I hope that our students will make the best use of these opportunities with zeal. I wish all students a grand success in their Endeavour.

Department of Applied Sciences

Apart from the five core departments of Engineering, the College also has well established Departments of Physics, Chemistry, and Mathematics. These subjects of Applied Science have a great importance in setting the foundation of engineering knowledge. Every effort is made to deliver high quality theoretical and practical knowledge to the students by highly experienced and acclaimed faculty members of these disciplines. The team of faculty is engrossed not only in academic excellence but also in productive research work. Their works are regularly published in different Science and Literary journals of national and international repute. The college gives a lot of importance to real time learning therefore all the laboratories are stocked with latest equipment and technology.

"If opportunity doesn't knock, build a door"

National Science Day

Lotus education society with the support of DST organized National Science Day on 27-28 February 2015.Science Day is celebrated for the contribution of Dr. CV Raman for Raman Effect in field of science and technology. For that Dr. CV Raman also got Nobel Prize. This year JIT, a part of Lotus Education Society organized it.

First day we invited IAS and ACS Mr. Rakesh Verma Sir, along with the DST Director Jigyasa Mam. They chaired the session along with member of Lotus Society. First Day there was exhibition of Model, Debate competition, Poster Making Competition and Quiz Competition. It was inter-colleges and inter-school level. Students showed great enthusiasm. Most of the participants were from Vedanta School and others were from DRIT, Poornima University and JIT etc.

Mr. Rakesh Verma Sir inaugurated the model exhibition. Next day on 28th February we had invited distinguished guest Science and Technology minister Mr. Kalicharan Saraf, Minister of Social Justice Mr. Arun Chaturvedi, ACS Mr. Rakesh Verma Sir and DST Director Mrs. Jigyasa Gaur. There was also Human Chain showing Raman Effect by all students. In the end all the deserving students were awarded.

World Cancer Day

Our college organized cancer day on 4th February 2015. It is a big day for the world outside as well as for JIT also. We invited expertise who has specialized on cancer. One of them was Dr. Uttam Soni who is recently director of Sita Devi Cancer Hospital. He has specialized in Breast Cancer. He made us aware how pre care is better than post suffering. He highlighted how by

Basant Panchami

Basant Panchami was celebrated on 24th January 2015. As we all know it is most elevated day for the farmers. On this day we worship Goddess Saraswati ji. That's done by our Chairperson Dr. Praveen Agarwal Sir and Director Dr. Ravi Kr. Goyal Sir.

"There is a place for everything and it is called College."

Special Lecture

In 2014 some special lectures were also the highlights. Some lectures were on life , on communication , on PO and others were on spirituality and moral values. "How to get success in life – way of spirituality" was delivered by Retd. Colonel Ravi Sharma on 27th September 2014 and other was motivational lecture on "Words of Kabir-Simple way to live the life "

Iskon Temple Visit

Exciting visit to Iskon Temple held for the students by the college on 10th 2014. JIT keep doing some spiritual activities so that it can arise seeds of spirituality in them since beginning. Two buses full with students and some faculty members reached there. They had special lesson there. They visited kitchen which is meant for food for large number of people. They understood the meaning of giving and giving without any benefit of taking, for that this small trip was meant.

NSS Orientation Day

Now it was time to do something for nation so we organized NSS Orientation Day on 8th November 2014. A debate competition on the topic "Impact of Western Culture on Youth" was organized.

All students participated with zeal in it, many were observers and had active partake.

"Positive anything is better than Negative Nothing."

FRESHER'DAY

Fresher's day was celebrated on 30th Sep 2014.as it is a big day for the newcomers. They had active participation in it.2nd year students approved certain rounds whoever will clear the rounds will the MR AND MS FRESHER. There were convinced rounds like Ramp walk, Talent and Question-Answer round. Some showed their flair in dance, some in drama and some of them in singing. The major highlights of college were SAWRI BROTHERS (KAWALI TEAM) and of course MR and MS FRESHER. It was full of fun and exhilarating day for the newcomers. Prashant was the MR well dresser and Erum Pathan was Miss well dresser. Mr. Fresher was Sagar chauhan and Miss Fresher was Shweta gupta.

CHILDREN'S DAY

Children 'day celebration as we all know set on 15th November, 2014.so this year 2014, JIT has also celebrated it. We structured face painting and poster making competition. The theme for face painting was SAVE ENVIRONMENT and for poster making it was' STOP GIRL CHILD INFANTICIDE'. There was another activity like Best out of waste where students created very useful objects out of the waste material. Appropriate students won the awards.

INTER COLLEGE COMPETITION

There was inter- college competition organized by JECRC University on 11th November 2014 on the title 'HOW PEACE IS POSSIBLE IN THE WORLD'. Students had a part in it. As we all know how everything is tangled and mismanaged so if we show no love, compassion for each other than peace can't be maintained. So for understanding how far peace is important such kind of challenge should be organized.

Global Warming is the increase of Earth's average surface temperature due to effect of greenhouse gases, such as carbon dioxide emissions from burning fossil fuels or from deforestation, which trap heat that would otherwise escape from Earth. This is a type of greenhouse effect. Human beings have increased the CO_2 concentration in the atmosphere by about thirty percent, which is an extremely significant increase, even on inter-glacial timescales. It is believed that human beings are responsible for this because the increase is almost perfectly correlated with increases in fossil fuel combustion, and also due other evidence, such as changes in the ratios of different carbon isotopes in atmospheric CO_2 that are consistent with "anthropogenic" (human caused) emissions.

The most promising sector for near term reductions is widely thought to be coal-fired electricity. Wind power, for example, can make substantial cuts in these emissions in the near term, as can energy efficiency, and also the increased use of high efficiency natural gas generation. As individuals, we can help by taking action to reduce our personal carbon emissions. But to fully address the threat of global warming, we must implement a comprehensive set of climate solutions:

- Expand the use of renewable energy and transform our energy system to one that is cleaner and less dependent on coal and other fossil fuels.
- Increase vehicle fuel efficiency and support other solutions.
- Place limits on the amount of carbon that polluters are allowed to emit.
- Build a clean energy economy by investing in efficient energy technologies, industries, and approaches.
- Reduce Tropical Deforestation and its associated global warming emissions.

KAVITA YADAV, DEPT OF CHEMISTRY

गणित का महत्व

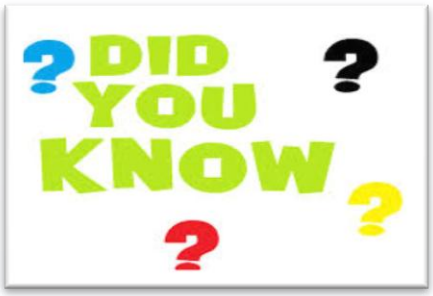
महान गणितज्ञ गाउस ने कहा था कि गणित सभी विज्ञानों की रानी है। गणित, विज्ञान और प्रौद्योगिकी का एक महत्वपूर्ण उपकरण (टूल) है। भौतिकी, रसायन विज्ञान, खगोल विज्ञान आदि गणित के बिना नहीं समझे जा सकते। ऐतिहासिक रूप से देखा जाय तो वास्तव में गणित की अनेक शाखाओं का विकास ही इसलिये किया गया कि प्राकृतिक विज्ञान में इसकी आवश्यकता आ पड़ी थी।

कुछ हद तक हम सब के सब गणितज्ञ हैं। अपने दैनिक जीवन में रोजाना ही हम गणित का इस्तेमाल करते हैं - उस वक्त जब समय जानने के लिए हम घड़ी देखते हैं, अपने खरीदे गए सामान या खरीदारी के बाद बचने वाली रेजगारी का हिसाब जोड़ते हैं या फिर फुटबाल टेनिस या क्रिकेट खेलते समय बनने वाले स्कोर का लेखा-जोखा रखते हैं।

व्यवसाय और उद्योगों से जुड़ी लेखा संबंधी संक्रियाएं गणित पर ही आधारित हैं। बीमा (इंश्योरेंस) संबंधी गणनाएं तो अधिकांशतया ब्याज की चक्रवृद्धि दर पर ही निर्भर है। कोणों और क्षेत्रफलों के अनुमापन द्वारा ही खगोलविज्ञानी सूर्य, तारों, चंद्र और ग्रहों आदि की गति की गणना करते हैं।

गणित का उपयोग बेहतर किस्म के समुद्री जहाज, रेल के इंजन, मोटर कारों से लेकर हवाई जहाजों के निर्माण तक में हुआ है। राडार प्रणालियों की अभिकल्पना तथा चांद और ग्रहों आदि तक राकेट यान भेजने में भी गणित से काम लिया गया है।

"IT IS OFTEN IN THE DARKEST SKIES THAT WE SEE THE BRIGHTEST STARS."



- Our eyes remain the same size from birth onward, but our nose and ears never stop growing.
- The Mona Lisa has no eyebrows.
- Ants never sleep!
- When the moon is directly overhead, you will weigh slightly less.
- Alexander Graham Bell, the inventor of the telephone, never called his wife or mother because they were both deaf.
- An ostrich's eye is bigger than its brain.
- "I Am" is the shortest complete sentence in the English language.
- Butterflies taste with their feet.
- It is impossible to sneeze with your eyes open.
- Elephants are the only animals that cannot jump.
- The sentence, "The quick brown fox jumps over the lazy dog" uses every letter in the English language.
- The shortest war in history was between Zanzibar and England in 1896. Zanzibar surrendered after 38 minutes.
- The strongest muscle in the body is the tongue.
- Camels have three eyelids to protect themselves from the blowing desert sand.
- You can't kill yourself by holding your breath.
- Money isn't made out of paper. It's made out of cotton.
- Your stomach has to produce a new layer of mucus every two weeks or it will digest itself
- Almonds are a member of the peach family, and apples belong to the rose family.
- Peanuts are one of the ingredients of dynamite.

DR. SHALINI KULSHRESHTHA, DEPT OF CHEMISTRY

Zero is sometimes called nought (naught) or nothing or nil or O (pronounced oh).

Zero is a special number. If there are zero things, there are no things at all. We are usually taught to count "one to ten" first. Then, we are told that zero is a placeholder. After that we learn that it is equal to nothing.

Of all the numerals, "0 is most significant. Unique in representing absolute nothingness, its role as a placeholder gives our number system its power. It enables the numerals to cycle; acquiring different meanings in different locations (compare 3,000,000 and 30).

The concept of zero first appeared in India around A.D. 458. Different words symbolized zero, or nothing, such as "void," "sky" or "space." Number 0 was invented by Aryabhatt. It was Aryabhatt, who used the symbol 0 and introduced the place value concept which is the base of the modern decimal number system. In 628, a Hindu astronomer and mathematician named Brahmagupta also developed mathematical operations using zero, wrote rules for reaching zero through addition and subtraction, and the results of using zero in equations. This was the first time in the world that zero was recognized as a number of its own, as both an idea and a symbol. Zero is a very strange number. It is neither positive nor negative. If you add or subtract zero to any number, that number stays the same. If you multiply any number by zero, you get zero. Any number raised to the power of zero is one, so $2^0=1$. You cannot divide a number by zero. You cannot take the zeroth root of a number. It's hard to say what 0^0 is 1. Any number divided by it-self equals one, except if that number is zero. In symbols: 0 ÷ 0 = "not a number."

Ankita Mathur, Deptt. Of Mathematics

By definition, **Big Data,** is data whose scale, diversity, and complexity require new architecture, techniques, algorithms, and analytics to manage it and extract value and hidden knowledge from it. In other words, big data is characterized by volume, variety (structured and unstructured data) velocity (high rate of changing) and veracity (uncertainty and incompleteness).

In the Big Data research context, so called analytics over Big Data is playing a leading role. Analytics cover a wide family of problems mainly arising in the context of Database, Data Warehousing and Data Mining research. Analytics research is intended to develop complex procedures running over large-scale, enormous in-size data repositories with the objective of extracting useful knowledge hidden in such repositories. One of the most significant application scenarios where Big Data arise is, without doubt, scientific computing. Here, scientists and researchers produce huge amounts of data per-day via experiments (e.g., disciplines like high-energy physics, astronomy, biology, bio-medicine, and so forth). But extracting useful knowledge for decision making purposes from these massive, large-scale data repositories is almost impossible for actual DBMS-inspired analysis tools. From a methodological point of view, there are also research challenges. A new methodology is required for transforming Big Data stored in heterogeneous and different-in-nature data sources (e.g., legacy systems, Web, scientific data repositories, sensor and stream databases, social networks) into a structured, hence well-interpretable format for target data analytics. As a consequence, data-driven approaches, in biology, medicine, public policy, social sciences, and humanities, can replace the traditional hypothesis-driven research in science.

Pankaj Kumar, Deptt. Of Comp. Sciences

"IF YOU WANT TO MAKE YOUR DREAMS COME TRUE, THE FIRST THING YOU HAVE TO DO IS WAKE UP"

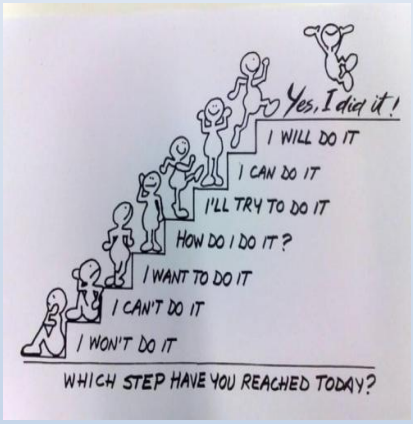
SEE THE WORLD LIKE AN ENGINEER…

"You see what's possible, so make it happen."

In the college campus of JIT JAIPUR, we teach people how to apply their intelligence and creativity to solve the world's most critical technological challenges. Our innovative faculty and students push the boundaries of engineering research, and we are ranked among the top global engineering schools.

Become an engineer who makes a difference.

Nikhil Kumar, Deptt of Mechanical Engg.



Manju Gaur, Deptt. Of Physics

Green tea has been used in traditional Chinese medicine for centuries to treat everything from headaches to depression. The leaves are supposedly richer in antioxidants than other types of tea because of the way they are processed.

Green tea contains B vitamins, folate (naturally occurring folic acid), manganese, potassium, magnesium, caffeine and other antioxidants (notably catechins).All types of tea are produced from the Camellia sinensis plant using different methods. Fresh leaves from the plant are steamed to produce green tea, while the leaves of black tea and oolong involve fermentation.

Green tea is alleged to boost weight loss, reduce cholesterol, combat cardiovascular disease, and prevent cancer and Alzheimer's disease.

Dharam Raj Mehra, Dept of Chemistry

"One of the most important key to success is having the discipline to do what you know; you should do, even when you don't feel like doing it."

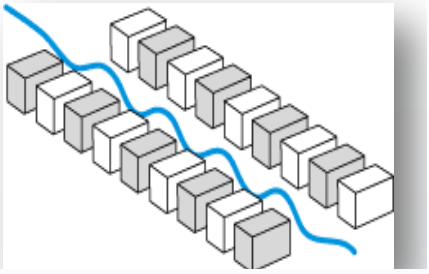
"Three things you cannot recover in life: the WORD after it is said, the MOMENT after it's missed and the TIME after it's gone. Be careful."

"Watch your thoughts they become words
Watch your words they become actions
Watch your actions they become habits
Watch your habits they become character
Watch your character they become destiny."

"Learning is a treasure that will follow its owner everywhere."

"Education is our passport to the future, for tomorrow belongs to the people who prepare for it today"

Chhoth Mal Saini, Dept. of Physics



A free electron laser is a relatively exotic type of laser where the optical amplification is achieved in an undulator, fed with high energy (relativistic) electrons from an electron accelerator. Such devices have been demonstrated with emission wavelengths reaching from the terahertz region via the far- and near-infrared, the visible and ultraviolet range to the X-ray region, even though no single device can span this whole wavelength range.

In the undulator, a periodic arrangement of magnets (permanent magnets or electromagnets) generates a periodically varying Lorentz force, which forces the electrons to radiate with a frequency which depends on the electron energy, the undulator period, and (weakly) on the magnetic field strength. Both spontaneous and stimulated emission occur, allowing for optical amplification in a certain wavelength range.
The greatest attractions of free electron lasers are:

- their ability to be operated in very wide wavelength regions
- the large wavelength tuning range possible with a single device
- the spectacular performance in extreme wavelength regions, not reachable with any other light source

Compared with other synchrotron radiation sources (pure undulators and wigglers), FELs can generate an output with a much higher spectral brightness and coherence. The big drawback of FELs is that their setups are very large and expensive, so that they can be used only at relatively few large facilities in the world.

Dr. Shailendra Jain, Dept of Physics

"If you look for the bad in the people expecting to find it, you surely will."

Young children, stimulated and Ready-to-learn today, help build the solid foundation of their Country's progress tomorrow…

Family learning is a powerful tool which can challenge educational disadvantage, promote socio-economic resilience and foster positive attitudes towards life-long learning. In family parents are the players who play major role in the holistic development of a child.
Parents and teachers serve a child's needs best when we provide them with consistent, nurturing, affirmative environments that echo one another. Parents as primary partners in their child's development can be critical as well as healthy for a child's healthy development, early learning, and school readiness.
Parent education fosters the overall development of children by strengthening parent knowledge about child development, building parenting knowledge and skills, strengthening relationships between parent and child and promoting age appropriate care and activities that can promote a child's development and school readiness.

They want their children to be assertive as well as socially responsible, and self-regulated as well as cooperative. Right nurturing of our children starts with a few lessons:
Learn to appreciate
Learn to forgive
Learn to respect
Learn to be kind
Learn to admire
Learn to be responsible
Learn to compliment
If a child lives with acceptance and friendship he learns to find love in the world. to develop themselves as kind and firm.
Hundred years from now it will not matter what kind of car you drove, what kind of house you lived in, how much you had in your bank account or what clothes looked like. But the world may be a little better place because you were important in the life of a child.

They may not remember what you said

They may not remember what you did,

But they will always remember how you made them feel…

Learn to compliment

If a child lives with acceptance and friendship he learns to find love in the world. to develop themselves as kind and firm at the same time and simultaneously it helps them feel, think,

Kanta Galani, Dept of English

Student's Corner

My Teacher

You are my love, you are my life

You are the one, whom I like

You are the one, whom I respect

You are my teacher...You are always perfect

You can forget me, but I can never forget you

You will always remain, as my true teacher.

Shweta gupta B.Tech 1st Year

Friendship

You are my friend that is true,

But the gift was given from me to you

We went through moments that were good and bad

Even moments those were happy and sad

You supported me when I was in tears

We stuck together when we were in tears

It's really sad that I had to be this way

But it has reached it vary last day

Miles away can't keep us apart

Because you will always be in my heart.

Erum Pathan, B.Tech 1st Year

Mother's Smile

There never was a fonder smile, than mother's smile

No softer touch, than mother's touch

So sleep while and know she love you more than "MUCH".

So more than "MUCH" much more than "ALL"

Though tender words, these do not speak of love at all,

From nightmares in the tickling night

And she is there to hold us tight.

There never was a stronger back

Than Father's back, that holds our weight

Who lifted us, when we were small?

And bore us till we reached the gate.

Then held our hands that first bright smile

Till we could run and did and flew

But, OH,

A mother's tender smile will keep and follow after you.

Arnika Kumari, B.Tech 1st Year

Kuch to Sharam Aayi Hogi

Kuch to Sharam Aayi Hogi,

Goli Jab Tumne Chalaai Hogi, Nanhe Bachche The Sab, Jinko Maara,

Masoomon Ne Tum Sabka, Kya Bigaara,.
Kya Cheekh Tumhe Sunaai Na Di,

Tadapti Jaan Kya Dikhaai Na Di, Kis Kaleje Se Bandook Chalaai Tumne,

Insaaniyat Ki Haa dunga Na bol ab Jhukaai Tumne,
Kya Milaa Masoom Charaagon KO Bhujaakar,

Kya Milaa Kisi Ka Ghar Jalaakar, Khuda Tumhe Na Maaf Karega,

Tumhaare Saath WO Insaaf Karega, Dil Roya Bohat Is Baar Kafan Dekhkar,

Maa Ki Godd Mein Bachchon Ka SAR Dekhkar,

Jogendar Singh, B.Tech 1st Year

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Inspirational Quotes:

Great minds discuss ideas, average minds discuss events and small minds discuss people.

Hard work never brings fatigue, it brings satisfaction.

Dreams are fuel of life, bigger the dreams, bigger the life.

Anil Kumar, B.Tech 1st Year

Stars of First Year

ILU KUMARI, EE
RANK- 1 ,93%

MD. MASOON,CE
RANK-2,92%

AIYSHA, CSE
RANK-3, 88%

YOGESH, ME
RANK-4, 85%

DEEPAK KR., ME
RANK-5, 84%

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