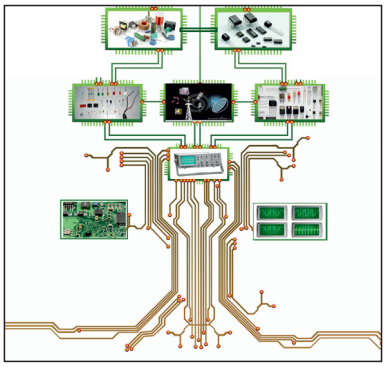
ELECTRONICA

Newsletter

Department of Electronics & Communication Engineering



Volume 4 **Issue 1** **Dec-2018**

Vision and Mission of the Institute

Vision

- To be one of the premier Institutes of Engineering and Management education in the country.

Mission

- To provide Engineering and Management education that meets the needs of human resources in the country.
- To develop leadership qualities, team spirit and concern for environment in students.

Objectives

- To achieve educational goals as stated in the vision through the mission statements which depicts the distinctive characteristics of the Institution.
- To make teaching-learning process an enjoyable pursuit for the students and teachers.

Vision and Mission of the Department

Vision

- To be a renowned department for education in Electronics and Communication Engineering in Karnataka State, moulding students into professional engineers.

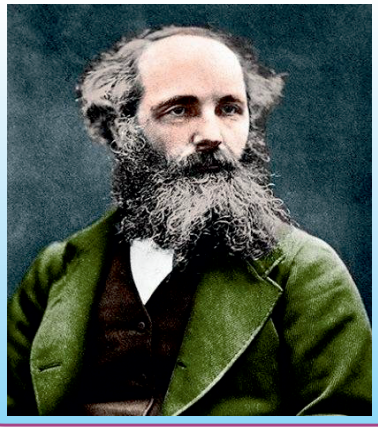
Mission

- To provide teaching - learning process in Electronics and Communication Engineering that will make students competitive and innovative to adapt to needs of industry and higher learning.
- To imbibe professional ethics, team spirit and leadership qualities to succeed in changing technological world.
- To inculcate empathy for societal needs and concern for environment in engineering design and practice.

Program Education Objectives

After 2/3 years of graduation, the students will have the ability to:

- Analyze, design and implement solutions in Electronics and Communication Engineering and adapt to changes in technology by self/continuous learning.
- Engage in higher learning and contribute to technological innovations.
- Work with professional ethics as an individual or as a team player to realize the goals of the project or the organization.
- Work with respect for societal values and concern for environment in implementing engineering solutions.



"True Logic of this world lies in the calculus of probabilities"

- James Clerk Maxwell

Scottish Scientist who formulated the classical theory of Electromagnetic Radiation.

What's inside…

Vidyaya Amrutham Ashnuthe

B. N. M. Institute of Technology

(Approved by AICTE, Affiliated to VTU, Accredited as Grade A Institution by NAAC.

All UG branches - CSE, ECE, EEE, ISE & Mech.E Accredited by NBA for academic years 2018-19 to 2020-21 & valid upto 30.06.2021)

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From the Editors Desk

Dear Readers,

The Department of Electronics and Communication Engineering, BNMIT is happy to present you the 2018 Winter Edition of the Department Newsletter ELECTRONICA!

As the world gravitates towards an era of Total Digitalization, it is important to understand the role of each of the players that make such a phenomenon possible. Having the mindset to change the world is scarcely enough – the way to revolutionize the world of electronic system design is to really understand the core of the change and develop the skills to implement the core. ELECTRONICA has always deemed it a major objective to provide a level playing field for students to contribute their ideas to spark thought experiments and progressive discussions which multiplies knowledge to a great degree. Technological advancements are only possible when the skilled people of the world unite together and build something together because although the world may have some big names and great inventors in its roster, it is truly the effort of a scientifically literate community to really take the world forward to a better age.

People all over the world should be encouraged to Dream, Learn, Do – Dream Big, Learn Always and Just Do. This is the mindset that truly can change the world. Combine that with technical knowledge and discipline and humanity has itself in a very good spot for technological advancement.

We at ELECTRONICA are proud of providing a platform for students to voice out their experiences in their own exploration of the world. The journey of humanity may be one of togetherness but what really drives progress is the fact that people bring out ideas of their own individualism in the field of their choices and have an honest representation for it – improving their own paths to the realization of their dreams is what really drives humanity forward.

The Editorial Board thanks all the people who have contributed to the efforts in making this edition of ELECTRONICA a reality. As always, we greatly appreciate any type of feedback from our readers so that we may continue to deliver content of the highest quality.

Editorial Team

About the Department

The Department of Electronics and Communication Engineering started in the Year 2001. The Department has two programs; B.E and M.Tech (VLSI design and Embedded Systems), affiliated to VTU. The Department has a VTU recognized Research Centre. The Department has a team of highly qualified and dedicated staff with teaching, research and industrial experience. Well-equipped laboratories with State-of-the-art infrastructure and class rooms with LCD projectors provide enhanced learning environment to cater to the aspiring engineers of tomorrow.

Workshops, Seminars and Invited Talks for students and staff are regularly organized in the department for continuous learning and updation of knowledge. Skill development programmes and industrial visits are organized for students. To make the learning process interesting, Innovative teaching methods have been adopted by the faculty. For overall development of the students, department conducts soft skills and personality development classes. Academic performances of the students are excellent with twelve university ranks from the inception. The students do innovative projects, internship training in industries and academic projects in reputed organizations. They regularly participate in technical, cultural & sports events in intra-college as well as inter-college events and have regularly bought laurels to the department.

The Department of ECE also got NBA accreditation for three academic years (2018-21) for excellent infrastructure and its quality in teaching-learning process, faculty contributions and students performance.

Dr. P.A. Vijaya
Professor & Head, Dept. of ECE

Department of Electronics and Communication Engineering is accredited by the National Board of Accreditation (NBA) for three Academic Years 2018-21

Hearty Congratulations to Kala Bhageerathi Team for winning Overall Championship and 1st Position at VTU Youth Festival held at BKIT, Bhalki during 2nd to 4th Nov 2018.

Faster than light

An article by Robert Ehrlich, a recently retired physicist from George Mason University claims that the neutrino is very likely a **tachyon** or faster-than-light particle. Ehrlich's new claim of faster-than-light neutrinos is based on a much more sensitive method than measuring their speed, namely by finding the mass. The result relies on tachyons having an imaginary mass or a negative mass squared. Imaginary mass particles have the weird property that they speed up as they lose energy – the value of their imaginary mass being defined by the rate at which this occurs. According to Ehrlich, the magnitude of the neutrino's imaginary mass is 0.33 electronvolts or 2/3 of a millionth that of an electron. He deduces this value by showing that six different observations from cosmic rays, cosmology and particle physics, all yield this same value within their margin of error.

A 1962 article by George Sudarshan and his colleagues Bilaniuk and Deshpande suggested the idea of faster-than light as a kind of loophole in relativity. Even Albert Einstein had it shown that it is impossible for particles (or space ships in a far away galaxy) to outmatch the speed of light because for a particle to accelerate beyond the speed of light, it will require infinite energy. However, Sudarshan and his colleagues proposed that if particles were created initially with faster-than-light speed in particle collisions, no acceleration or infinite energy would be necessary which unfortunately is not possible for space ships. So, tachyons often cite conflicts with relativity theory.

This idea led them to propose that protons should beta decay when they travel at sufficiently high speed towards us. Normally, this process is forbidden because it could not conserve energy but that changes if neutrinos are tachyons, energy can be negative in certain reference frames – in effect negative energy tachyons travel backwards in time.

But however in 2011, the OPERA experiment which had mistakenly observed neutrinos appearing to travel faster than light later stated that their team reported two flaws in their equipment set-up that had caused errors far outside their original confidence interval: a fiber optic cable attached improperly which caused the apparently faster-than-light measurements and a clock oscillator ticking too fast. The errors were first confirmed by OPERA after a ScienceInsider report; accounting for these two sources of error eliminated the faster-than-light results.

In March 2012, the ICARUS experiment reported neutrino velocities consistent with the speed of light in the same short-pulse beam OPERA had measured in November 2011.Thus relativity theory still holds strong and we might have to look at other ways to travel back in time and participate in inter galactic battles.

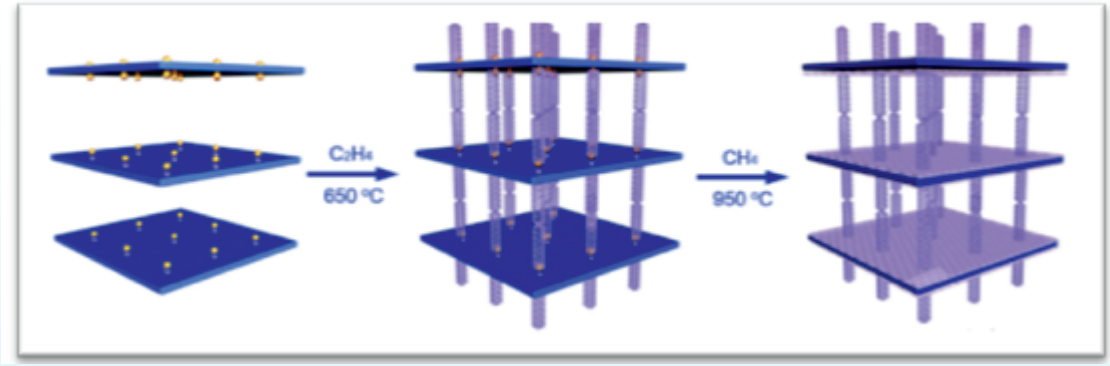
Parul Herur, VII 'B'

Graphene Carbon Nanotube Hybrid Structures

Graphene is strongest material ever tested, conducts heat and electricity efficiently and is nearly transparent. Graphene displays remarkable electron mobility at room temperature, with reported values in excess of 15000 $cm^2 \cdot V^{-1} \cdot s^{-1}$. Graphene is capable of conducting electricity at the limit of nominally zero carrier concentration. Its carrier density 4.5×10^3 times greater than copper. The resistivity of graphene sheets would be 10^{-8} Ω·m and Young's modulus of 1 TPa and with an intrinsic tensile strength of 130.5 GPa. The carbon–carbon bond length in graphene is about 0.142 nanometres. Carbon nanotubes (CNTs) are allotropes of carbon with a cylindrical nanostructure. Carbon nanotubes are the strongest and stiffest material with multiwalled CNTs having a tensile strength of 63 gigapascals. Carbon nanotubes have a low density for a solid of 1.3 to 1.4 g/cm and specific strength of up to 48,000 $kN \cdot m \cdot kg^{-1}$. metallic nanotubes can carry an electric current density of 4×10^9 A/cm^2, which is more than 1,000 times greater than those of metals such as copper.

Although graphene and carbon nanotubes (CNT) exhibit remarkable electronic, thermal, optical and mechanical properties, these two carbon allotropes have their limitations due to their nanoscale size. The combination of graphene and CNT are suggested to overcome the problem of bundling and stacking in CNT and graphene which limit the performance. The solution is to combine the two materials and form a nanocomposite called the Graphene-Carbon Nanotube Hybrid Structure. There are basically two ways to form a bond between the CNT and graphene, one with the covalent bond and the other without the covalent bond. There is a possibility of this structure providing 3D network which will allow electron transfer. GCH with covalent bond offer better characteristics such as high transportation rate of electrolyte ions, electrons, and highly conductive due to synergetic effect between CNT and graphene.

GCH Structure or the Graphene Carbon Nanotube Hybrid structures are the latest hybrid structures that has garnered interest from the researchers and academia alike. Experiments to synthesize and study the properties and characteristics have been initiated by top universities in the world. This is just the beginning and GCH Structures has the potential to possibly replace the current materials used in electronics.



Rakshith B.V. VII 'B'

Programming

How schools and colleges teach programming to students: they start with the "Hello World" program and start updating our knowledge from there. Now while this proves to work for many people, it's really not an accurate way of starting to teach someone how to program. One needs to know why Programming is used and build up from that point. What is programming? And it's a very simple answer, Programming is used **TO SOLVE PROBLEMS.**

The education system needs to be able to ingrain a sentiment of identifying problems and coming up with solutions to said problems in both the real life sense as well as the programming sense. This is where the education system just fails. What is done is teach students how to solve problems that ALREADY EXIST AND HAVE A SOLUTION. The key point here is that the students are not developing these solutions on their own - to be a good programmer, this skill cannot be undersold; and is crucial for solving problems - therefore generally when we have students learning “programming” in schools and colleges, it is nothing more than memorizing a bunch of code that's already been written. There is absolutely no need for a programmer to memorize anything - that is part of the bigger problem: One cannot memorise everything.

And this doesn't apply to just problems on paper. This may apply as well to real life problems faced by the students that have nothing to do with programming. They could essentially use this method of thinking in a refined way to tackle problems and the best part is that their mindset is oriented to identify and take on problems. Thus they will find a way to get rid of it. Since they are innovative enough, they can use their own resourcefulness to actually come up with solutions for newer problems that didn't exist.

So what is a programmer good at?
1) **Code** - LEARNED in the right order.
2) **Problem Solving** - Ability to think of things on their own.
3) **Critical Analysis** – Debug.
4) **Imagination and Structural Definition** - the ability to visualize the entire code working on its own with efficient use of algorithms.

Look at where you are right now. You've performed the two most necessary things to be a programmer: you've identified a problem and you've found a viable solution. But now, it becomes like a nested-if condition - you find the next problem. Now, you need to come up with a solution for that. The next problem arises then. The next solution is found. This will lead to the next problem, which has a solution. And it goes on and on until you reach a stage where you have to take absolute baby steps to solve the nearest problem and ultimately reach the final solution.

You start with the absolute basics. If you feel you are incapable of learning it on your own, then you're not confident enough. Low confidence and low self-esteem and other emotional traits must be discarded. We are human beings so there's room for error- and this should always be seen as a chance to learn something new and a chance to improve oneself. That's why you take your time and do it in the way you want to do it and you want to understand it. Of course, if you want to save time having someone explain it to you is not only a good thing. It will bring better results in the short term.

But, if you want long term results, do it on your own at your own pace and make sure you understand EVERYTHING there is to know about it. To arrive at a long term solution for learning, you need to fulfil your short term needs so that you can prepare yourself for your long term needs.

Now for the actual Problem at hand:
Problem: Now how to apply these kinds of problems in the coding world?
Solution: You learn the Syntax. This is your first problem.
Problem: How to learn syntax?
Solution: To learn syntax, you need a textbook or the internet.
Problem: Need to understand what the syntax and jargon actually mean? "Data-type, identifier, hash function, graph..." what on earth are these?
Solution: This is where living in the era of 4G technology is most relevant. Google is your best friend for everything. Anything you don't understand, GOOGLE IT.

Solution: That is okay. Taking one's own time is important because the end results are worth it. No one becomes an expert at anything overnight. Googling the definitions of words, you don't understand that will lead to more intensive research and a better understanding of fundamentals. It also provides a strong base for the knowledge.

Problem: But there are so many words you don't understand??!

It is not necessary for a person to come up with an optimum answer in the first try. Coming up with an original solution or a new take on a problem and then modifying it to make the solution efficient is a better path taken and will always be the best way to increase knowledge.

Thus, essentially what a programmer or any person for that matter should do is: Reduce everything to such a tiny level that you will definitely understand it. And that is how you become a programmer.

Tanish Islam, VII 'B'

Blockchain Technology for Startups

'Blockchain Technology' brought with it new ways for start-ups to get a good start and for already existing companies to improve. Blockchain technology is not accepted worldwide and still faces opposition from some parts of the world. However, looking at the rise of crypto currencies like Bitcoin and Ethereum, most of the companies changed their minds and looked towards Blockchain technology for solutions to some of their problems. In this article we will look at the ways in which Blockchain technology can be used by start-ups.

1. Using Cryptocurrencies for Exchanges

The conventional method is to use the native currency for exchanges of any kind. Instead, introducing cryptocurrencies as an option for exchanges is a good idea. Along with the conventional method, this is an additional method for people who wish to use their cryptocurrency. Bitcoin and Ethereum are already being accepted by several companies. Using **Bitcoin** has the following advantages:

1. The value of Bitcoin constantly rises. So the company keeps profiting from an exchange.
2. The fees involved in payment via Bitcoin are very less and it is an easy process too.

Ethereum makes use of something known as smart contracts. Smart contracts are self-executing contracts with the terms of the agreement between buyer and seller being directly written into lines of code. If a start-up requires some help regarding the transaction of any kind of currency which is based on a certain set of rules, then Ethereum smart contracts are the best for them. The smart contracts are very **flexible** as they can be programmed and the use of it depends on the company. There is no universal smart contract as such.

Bitcoin and Ethereum are the **most preferred** cryptocurrencies for any transactions to be done. However, a company can introduce a few other cryptocurrencies. But having many cryptocurrencies as alternative methods can also be problematic as the maintenance will be a difficulty.

2. Initial Coin Offering

Another method for startups to use Blockchain Technology was introduced in the year 2017 that is the Initial Coin Offering (ICO). Before this, start-ups would look for venture capitalists to fund them. This method involves a lot of friction and discomfort for the start-ups. The venture capitalists hold a stake in the company and can withdraw at any time they want to. This method was also included giving away confidential information to the venture capitalists.

With the use of ICOs, the company creates a token, which can be bought by investing in it using Bitcoins or Ethereum. This allows the start-ups to make millions of dollars in just minutes. This system is advantageous because the money is obtained quickly. Sometimes, more than what is required. Also, the company does not have to give away any confidential document or information to the public. Only an appealing white paper is sufficient.

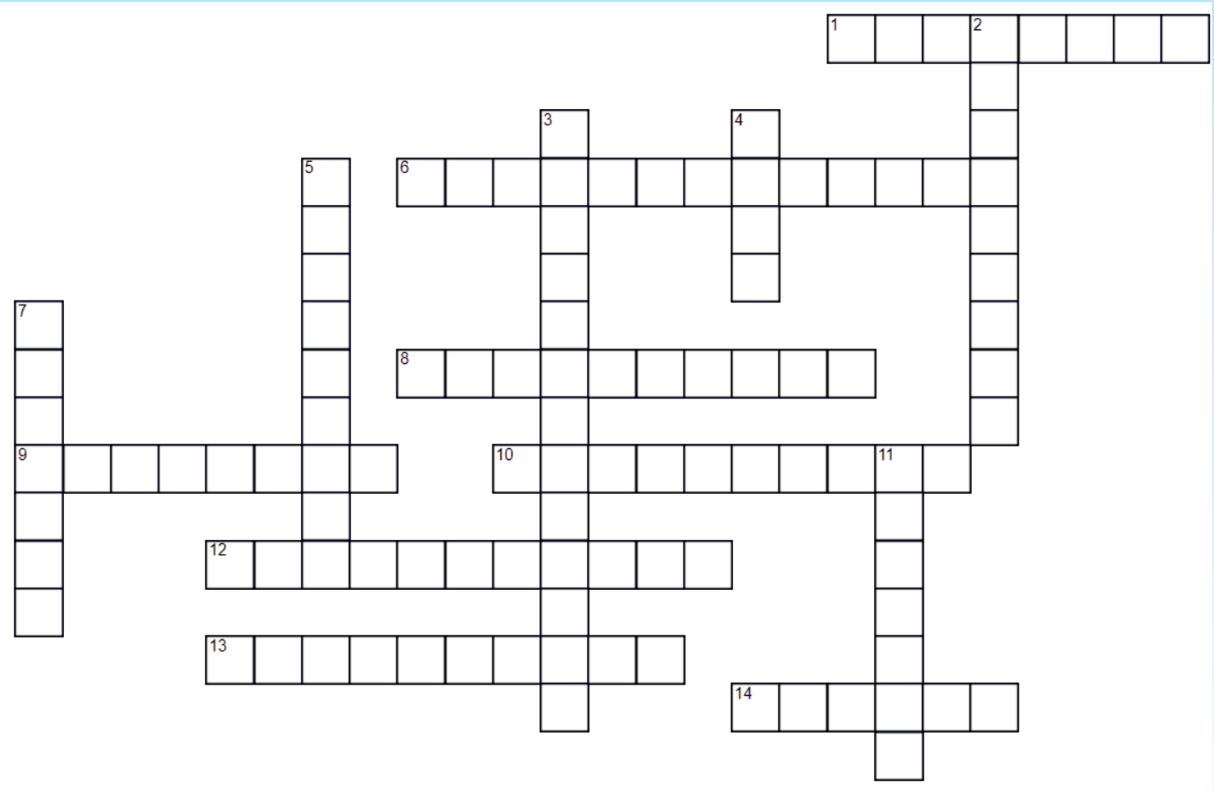
The tokens created by the company increase in value with time as more people buy them. When the project is a success, it is a win-win situation for both the company as well as the investors. If the project is successful, the value of the token shoots up and the investors can exchange it for cryptocurrency of their choices (which, as expected, is either Bitcoin or ethereum most of the time). It should be noted that ICOs are not only for start-ups. Actually, it is better to invest in ICOs by companies which have existed for some time. Otherwise, there is high risk of loss. Not that the project of a well-established company will always be a success but the probability of success favors the long standing companies.

3. Security

Blockchain Technology is also a safe mode for transaction. It uses cryptographic algorithms like SHA256 and Scrypt etc. for securing transactions. The concepts of Blockchain Technologies can be used for protecting online transactions and even any kind of communication. With the use of this technology, the contents to be transferred over the network are encrypted before they ever touch the network. Kodak introduced 'KODAKOne platform' which helps photographers fight against theft of their photographs and also earn by selling their photographs. Startups can take ideas such as this into account and increase the security they provide to their customers.

Tejas R Simha, VII 'B'

Crossword



Across

1. Your vibe attracts your tribe. This is true for frequencies too. I am the name given to such frequencies.
6. I am sound only half as good as a conductor.
8. I am like the human centipede, but with Instructions in Microprocessors!
9. I almost died playing with kites but discovered electricity in the process.
10. I am a field which deals with Automotive Electronics and Telecommunications.
12. I define systems using their impulse decisions.
13. I am the reason an Operating System does not procrastinate and efficiently manages tasks.
14. I am the final exam for Artificial Intelligence.

Down

2. I am non linear, passive, and can store memory without power.
3. According to Scientists, stress on humans generate electricity. I can do the same thing, except I am not human.
4. I am like the Politician of Electronics Devices because I am a Powerful Connection and give both video and audio.
5. There is a mathematical operator which has a symbol. Done once on a Scalar you get a Vector. If you do it on the Vector, you get me and the symbol for me is the inverted version of that operator's symbol.
7. I invented the 'compute'-er. It was mechanical, though.
11. You can reduce any problem in Electronics to me.

Down

5- LAPLACIAN
7- BABBAGE
11- CIRCUIT
2- MEMRISTOR
3- PIEZOELECTRIC
4- HDMI

Across

10- TELEMATICS
12- CONVOLUTION
13- SCHEDULING
14- TURING
1- HARMONIC
6- SEMICONDUCTOR
8- PIPELINING
9- BENJAMIN

Tanish Islam, VII 'B'

Quotes:

"To succeed in your mission, you must have single-minded devotion to your goal".

-A.P.J. Abdul Kalam

"The true sign of intelligence is not knowledge but imagination".

-Albert Einstein

"Intelligence is the ability to adapt to change".

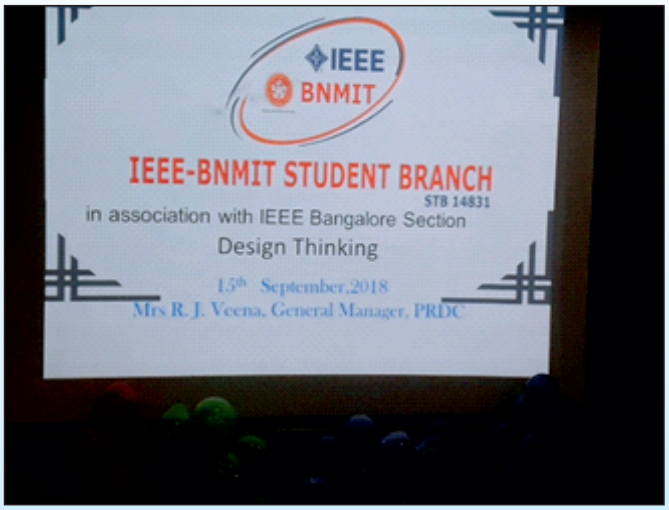
-Stephen Hawking

"Innovation distinguishes between a leader and a follower".

-Steve Jobs

EVENTS ORGANIZED BY THE DEPARTMENT

- Workshop on **"IoT in Real Life Applications from Product Development Perspective"** was organized under NewGen IEDC on 9th – 13th July 2018.
- Workshop on **"Design Thinking"** by Mrs. Veena R J, PRDC, Bangalore was organized by IEEE-BNMIT Student Branch on 15th Sept 2018.
- Workshop on **"Research Methodology"** was organized by IEEE-BNMIT Student Branch on 3rd and 4th Oct 2018.
- **"Inquizitive",** a quiz organized by IEEE-BNMIT Student Branch in association with IEEE Bangalore Section was held at BNMIT on 13th Oct 2018.
- **"Hackathon"** was organized by IEEE-BNMIT Student Branch in association with IEEE Bangalore Section on the 14th Oct 2018.
- Talk on **"Waste to Wealth"** by Sri. Rajeeva Deekshit, Chief Managing Director, M/s. Pyro Ecogreen Technologies Pvt. Ltd, Bangalore was organized under the ISTE Student Chapter, BNMIT on 27th Oct 2018.
- **"ISTE Quiz – 2018"** was organized by ISTE Student Chapter, BNMIT in association with BNMIT Q-Quotient quiz club for all the first year students on 14th Nov 2018.
- **"Industrial Visit"** to Viswas Textile Processor, Kumbalgodu, Bangalore was organized as a part of Induction Program for 1st Semester ECE students by Department of ECE in association with ISTE Student Chapter.
- **"Industrial Visit"** to National Aerospace Laboratories, Bangalore was organized under ISTE Student Chapter and EAC for 5th semester students on 14th and 16th Nov 2018 respectively.
- **"Industrial Visit"** to Atria Power, Solar Power Plant, Pavagada, Tumkur was organized under ISTE Student Chapter for 7th semester students on 15th Nov 2018.



"Design Thinking" workshop by Mrs. Veena R J, PRDC, Bangalore was organized for ECE students by the IEEE-BNMIT Student Branch on 15th Sept 2018.

Tit - Bits

- Water can boil and freeze at the same time and it's called the 'triple point'
- Lasers can get trapped in waterfall.
- A new state of matter exists (alongside solid, liquid and gaseous states) and it is known as time crystals.
- You can prove Pythagoras' theorem with fluid.

STAFF ACHIEVEMENTS

- Mrs. Bhuvana Suganthi completed her Ph.D defence – "High Reliable Mobile Computing in Distributed Systems" on 8th Sept 2018, under the guidance of Dr. R. Manjunath.

- Mrs. Priya R Sankpal completed her Ph.D pre-comprehensive Viva – "Encryption Based Nested Watermarking Techniques for Secure Transmission of Images" on 25th Sept 2018, under the guidance of Dr. P.A. Vijaya.

- P. Venkatrao and Dr. S. B. Bhanu Prashanth published a paper titled, "Nonlinear Chirped Grating based Tunable Dispersion Compensation using Strain" in Optik - International Journal for Light and Electron Optics 175, 181–188, 2018.

- Anu K L, Dr. Yasha Jyothi M Shirur and Prasannakumar Y published a paper titled "Design and Implementation of Driver Assistance System (Das) Using Raspberry Pi to Enhance Driver Safety" in IJERT, ISSN: 2395-0056), Vol. 5, Issue 4, Apr 2018.

- Dr. Yasha Jyothi M Shirur published a paper titled "Wireless Local Area Network Frame Classification to Access Categories based on User Priority" in International Journal of Innovative Research in Science, Engineering and Technology, Vol. 7, Issue: 6, Jun 2018.

- Chaitra N and Dr. P.A.Vijaya, published a paper titled "Machine Learning Based Comparison of Pearson's and Partial Correlation Measures to Quantify Functional Connectivity in the Human Brain" in International Journal of Neuroscience and Behavioural Science, Vol. 6, No. 3, pp. 23-30, Jun 2018.

- Vishakha and Veena S Murthy published a paper titled "Implementation of an Efficient Phase Locked Loop System for 4G Systems" in Perspectives in Communication, Embedded-Systems and Signal-Processing (PiCES), ISSN: 2566-932X, Vol. 2, Issue 3, Jun 2018.

- Chaitra N, Chethana L, Menaka Shankar and Manaswini S published a paper titled "Comparing Linear and Non-linear Connectivity Measures for the Classification of Alzheimer's Patients", in International Conference on Inventive Research in Computing Applications (ICIRCA 2018) at RVSCET, Coimbatore during 11th-12th Jul 2018.

- Dr. Jyoti R Munavalli and Veena S Murthy published a paper titled, "Impact of Healthcare Innovations and Big Data on VLSI Trends" in International Journal of Advanced Research Trends in Engineering and Technology, Vol. 5, Issue 7, pp 1-7, Jul 2018.

- Dr. Rekha P, Prabhavathi P, Veena S. Murthy and Padmaja Jain published a paper titled, "A Survey of Floral Aroma Sensors" in International Research Journal of Engineering and Technology, Vol. 5, Issue 7, Jul 2018.

- Priyadarshini K Desai, Basavaraj Neelgar, Keerti Kulkarni and Reena Kulkarni published a paper titled "Antenna Types for Small Cells Base Stations" in International Journal of Science and Research (IJSR), ISSN-2319-7064, Vol.7, Issue 9, Sept 2018.

- Dr. Rekha P, Dr. M. S. Suresh and Vrunda Kusanur published a paper titled "Sensor for measuring aroma of Jasmine", IEEE SENSORS 2018 Proceedings, 796-798, Oct 2018.

- Dr. Bindu S, Ashwini S Savanth and Lakshmi Bhaskar published a paper titled "Smart Agriculture with Conducting Polymers using UDP" in the JETIR International Journal(ISSN: 2349-5162) Vol. 5 Issue 12 , Dec 2018.

- Shridhar H, Dr. Basavaraj Neelgar and R. Premanada published a paper titled "An Improved Image Fusion Technique based on Wavelet and Edge Gradients to Augment Spatial Prominence of Image Features" in ICEECCOT-2018 at GSSSIETW, Mysore during 14th - 15th Dec 2018.

STUDENTS' ACHIEVEMENTS

Technical Achievements

- Rakshith B V, Varun D Gurjar, Vishnuvardhan G of VII semester published a paper titled "Speech Enhancement and Noise Suppression using FIR Filters" in IJIRSET, Vol. 7, Issue 8, Aug 2018.

- Karthik S Murthy, Parul Herur, Adithya B R, Harshita Lokesh of VII semester presented a paper titled, "Automatic Solar Tracker using MSP430 Microcontroller", in ICMEES organized by IRAJ Research Forum on 4th Nov 2018.

- Anup Surahonne, Amogha Lokesh, Adithya N Simha, Arjuna C Reddy of VII semester presented a paper titled, "Automatic Light Intensity Controlling using IOT " and won "Excellent paper award" in ICMEES organized by IRAJ Research Forum on 4th Nov 2018.

- Rakshith B V and Suchit Shavi of VII semester published a paper titled "Laser assisted Cancer Cell Elimination" in Asian Journal of Convergence in Technology, Vol. 4, Issue 2, Nov 2018.

Cultural Achievements

- Anirudh Aithal of V 'A' won Gold Medal in Light Vocal Solo at Annual Inter-college VTU Cultural Youth Festival 2018-19 held at BKIT , Bhalki, during 2nd to 4th Nov 2018.

- Shivani Rajan of V 'B' won Gold Medal in Western Solo at Annual Inter-college VTU Cultural Youth Festival 2018-19 held at BKIT, Bhalki, during 2nd to 4th Nov 2018.

- Rakshitha, Shreya and Sonika were part of Folk Dance team which won Gold Medal at Annual Inter-college VTU Cultural Youth Festival 2018-19 held at BKIT, Bhalki, during 2nd to 4th Nov 2018.

- Rakshitha A, Pooja R and Anirudh Aithal were part of Indian Group Song Team which won Gold Medal at Annual Inter-college VTU Cultural Youth Festival 2018-19 held at BKIT, Bhalki, during 2nd to 4th Nov 2018.

- Sujatha Kamath and Shivani Rajan were part of Western Group Song Team which won Silver Medal at Annual Inter-college VTU Cultural Youth Festival 2018-19 held at BKIT, Bhalki, during 2nd to 4th Nov 2018.

- Priyanka of V 'B' won Bronze Medal in Cartooning at Annual Inter-college VTU Cultural Youth Festival 2018-19 held at BKIT, Bhalki, during 2nd to 4th Nov 2018.

- Anirudh Aithal of V 'A' won Bronze Medal in Classical Vocal Solo at Annual Inter-college VTU Cultural Youth Festival 2018-19 held at BKIT, Bhalki, during 2nd to 4th Nov 2018.

- Gowri, Vishnu N and Ganesh Murthy were part of One Act Play team which won Bronze Medal at Annual Inter-college VTU Cultural Youth Festival 2018-19 held at BKIT, Bhalki, during 2nd to 4th Nov 2018.

Sports Achievements

- Raksha Ramkumar, Soumyashree P K and Soundarya.S were part of table tennis winning team in VTU Intercollegiate Bangalore Central Zone Table Tennis (M&W) Competition 2018-19 organized by BNMIT, Bangalore on 3rd Sept 2018.

- Raksha Ramkumar, Soumyashree P K and Soundarya.S were part of table tennis team who were runners up in VTU Intercollegiate Inter Zone Table Tennis (M&W) Competition organized by Sapthagiri Institute of Technology, Bangalore on 6th & 7th Sept 2018.

- Priyanka P, Anshika Philo K, Rameshwari A, Hemanth P, Jeevan Aditya, Kowshik Bharadwaj P V, Eva D Saglani and Deepika Jadav K were part of throw ball teams which won 39th Y. Nagesh Rao Maanay Memorial Intercollegiate Throw Ball Tournament – 2018 organized by BNMIT, Bangalore on 7th & 8th Sept 2018.

- Raksha Ramkumar, Soumyashree P K and Soundarya.S were part of team which won Table Tennis Competition organized by MSRIT, Bangalore on 14th & 15th Sept 2018.

- Smitha. S Maganti was part of team which won 4th Place in VTU (signal Zone) State Level Lawn Tennis (W) Competition 2018 organized by VTU, Belgaum on 29th & 30th Sept 2018.

- Deepika Jadav K, Eva Saglani, Anshika Philo, Priyanka P and SriHari Priya were part of throw ball team who were runners-up in VTU Central Zone Throw ball (W) Competition 2018 organized by Vemana Institute of Technology, Bangalore on 9th & 10th Oct 2018.

DEPARTMENT EVENTS

"IoT in Real Life Applications from Product Development Perspective" workshop was organized under NewGen IEDC, 9th – 13th July 2018

"Waste to Wealth" talk by Sri. Rajeeva Deekshit, Chief Managing Director, M/s. Pyro Ecogreen Technologies Pvt. Ltd, Bangalore was organized on 27th Oct 2018 under ISTE Student Chapter, BNMIT.


"Research Methodology" workshop was organized for ECE students by the IEEE-BNMIT Student Branch on 3rd and 4th Oct 2018.


Memento Distribution to meritorious students during FCD function on 27th Oct 2018 under ISTE Student Chapter, BNMIT.

"Industrial Visit" to National Aerospace Laboratories, Bangalore was organized under ISTE Student Chapter on 14th and 16th Nov 2018 for 5th Semester Students of ECE.

"Industrial visit" to Solar Power Plant at Pavagada was organised by Mr. Amit Rane, Managing Director, Wudmin Energy Pvt. Ltd., for 7th Semester Students of ECE on 15th Nov 2018.

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