



# ETC

## Junction

A Newsletter

Electronics  
And  
Telecommunication

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IN THIS ISSUE

## A Tribute to Stephen Hawking

By Prof M. D. Sontakke

A great scientist, Professor and Author, Stephen Hawking was born on 8 January 1942 in Oxford, England. His school education is in Saint Albans. In School, he was an ordinary boy. His friends called him as 'Einstein'. He entered in Oxford University to do his graduation in Physics in 1959. He started his research in Cambridge in 1962. At the age of 21, while studying cosmology at the University of Cambridge, he was diagnosed with amyotrophic lateral sclerosis(ALS). In a very simple sense, the nerves that controlled his muscles were shutting down. After submitting a thesis on 'Properties of Expanding Universes', he got Ph.D.

In 1968, Hawking became a member of the Institute of Astronomy in Cambridge. The next few years were a fruitful time for Hawking and his research. In 1970, Hawking postulated what became known as the second law of black hole dynamics that the event horizon of a black hole can never get smaller. Beginning in 1973, Hawking moved into the study of quantum gravity

and quantum mechanics. His work in this area was spurred by a visit to Moscow and discussions with Yakov Borisovich Zel'dovich and Alexei Starobinsky, whose work showed that according to the uncertainty principle, rotating black holes emit particles. Hawking returned to Cambridge in 1975 to a more academically senior post, as reader in gravitational physics.

Hawking gained the international prominence for the first time in 1988 with the publication of 'A Brief History of Time'. It was meant to be a simplified version of cosmology for the masses and became an instant bestseller. Over the years, he wrote almost 15 books. Few of them are, 'A Brief History of Time', The Universe in a Nutshell, The Grand Design, The Theory of Everything, The Nature of Space and Time, GOD Created the INTEGERS, BLACK HOLES, The Future of Space time etc.

On March 14, 2018, Hawking finally succumbed to the disease that was supposed to have killed him more than 50 years earlier. Later in the month, it was announced that Hawking's ashes would be interred at Westminster Abbey in London, alongside other scientific luminaries like Newton and Charles Darwin.



### Is freedom so expensive (?)

Few days back I came across a picture of dead body of a small kid lying on the sea shore. His name was Aylan Kurdi and he was from Syria..... (page3)



### Use of I-Pad Pro by Disney animators

Just a short while after the Pixar development got the hands on I pad pro and praised the device's palm ..... (Page3)

# Inauguration of IETE

10 Nov, 2017

Engineering does not merely know and being knowledgeable; engineering is not merely analysis; engineering is not merely the possession of the capacity to get elegant solutions to non-existent engineering problems; engineering is practicing the art of the organized forcing of technological change.

Engineers operate at the interface between science and society. Keeping this view in mind, our institute has applied and received Life time organizational membership from Institute of Electronics and Telecommunication Engineers. The inaugural ceremony of the IETE commenced with the lighting of lamp by a group of dignitaries of Dr. Anand Mohan (Former director NIT, Kurukshetra and Professor at Department of Electronics Engineering, IIT BHU, Varanasi) 2<sup>nd</sup> from left, Mr. Pratapsinh Raorane (Trustee, K.I.T.'s College of Engineering, Kolhapur) 3<sup>rd</sup>



from left, Dr. V.V. Karjinni (Director, K.I.T.'s College of Engineering, Kolhapur) 1<sup>st</sup> from left and Dr. Y. M. Patil (Head, Department of Electronics Engineering) 4<sup>th</sup> from left.

Mrs. Komal Jadhav formally welcomed all the dignitaries present on the dais, colleagues & students. She mentioned about the significance of IETE and its aims about providing students and faculties with the IETE Journals, newsletters. Dr. Anand Mohan briefed the advantages of IETE to students and Faculty for their overall development. He

guided all the audience about R&D activity and also art of research paper.

At the end, Mr. M.D. Sontakke offered a vote of thanks to all includes Dr. Anand Mohan & Mr. Pratapsinh Raorane. He also thanked Director, K.I.T.'s College of Engineering, H.O.D. Electronics and H.O.D. E&TC for their valuable guidance support. He also thanked Mrs. Komal Jadhav (IETE Coordinator) & Mrs. Ashwini Shinde (IETE Coordinator) for organizing the event.



10 to 16 Dec 2017

C Programming language is very powerful and widely used language. It is structure oriented and developed by Dennis Ritchie at Bell library in USA. It is a middle level language. C is a basic language for all the begginers of ENTC, ELECTRONICS and CSE, IT students.

## C Programming Workshop

So, in our department a workshop was arranged for TE students to make awareness, or introducing about C language among them. Students were present at 09:00 am. Our HOD Dr. S. R. Chougule mam introduced the guest & the guest was Tanaji Patil.

In starting part, he gave some examples like robot, remote controlling car etc. which all this based on the programming system. There are so many programming languages such as C, C++, Rasberry pie and many more, But C is basic and old programming language. C, in particular, was created to make it easier to write operating systems. Rather

than write UNIX in assembly, which is slow process and not very portable. The goal was to have a language that provided good control flow and efficiently compiled and run quickly.

In last part, students ask some doubts to him. He solves everyone problem neatly. So due to this lecture, students view about C language becomes positive.

At last, TE student Miss. Ravina Nair give thanks to guest to come in our college and sharing their important time.



## Opportunities in SSB



29 Dec 2017

Engineering is a branch where we have flexibility to do different creative things as well as pursue a unique career. The best example of this is to have a bright future in Armed Forces. One of the alumni of E&TC DEPT Mr. Pravin Usare has been appointed as a lieutenant in the army.

An interaction with him had been arranged in the E&TC dept. to motivate the students willing to join armed forces. He firstly explained the importance of armed forces, the exams that would lead us to it and then told the strict and energetic training before getting the post.

He also covered the points such as how important is it to have well-equipped armed forces for our country. His explanation for the training he was having was truly scary as it was too painful and muscular one.

Lastly he discussed the most attractive feature of such placement i.e. the salary they get. Everyone was surprised to hear the six digit salary he would get.

**“THE NATION WITH POWERFUL ARMED FORCES IS THE NATION WITH LESS THREATS AND MORE DEVELOPMENT”**

**‘E&TC DEPARTMENT IS PROUD TO HAVE SUCH ALUMNI’**

## Opportunities in UPSC-MPSC



29 Dec 2017

We learn a lot of things in our education period but whenever we choose a career, we implement only some part of it. The only career option that requires all the knowledge from our school to graduation is civil services. Some of the engineers are successful civil servicemen.

Keeping this fact in mind, an inspiring guest lecture was organized for the students of E&TC Dept. Mr. Deepak Atigre was the resource person who himself owns a training academy for civil services. He initialized his lecture by informing students regarding civil service exams. Later on, he discussed the portion for the same.

He gave examples of many civil servicemen and their dedication. According to him, passing the written exam is quite easier than facing the interview after it. He covered points related to the difference in IAS and IPS. He discussed about the salaries of different posts which were quite attractive.

Mr. Deepak Atigre motivated many students to enter in these fields. This lecture was conducted at the right time. “There are many paths leading us towards destination. Our duty is to choose the path leading to success”

## Seminar on System Design



30 Dec 2017

Electronic system design is a subject included in the T.E. E&TC syllabus. It is often said that “PRACTICE MAKES MAN PERFECT” and to apply this knowledge, it is required to know what exactly is going on in industries nowadays. Hence, to implement this, Prof. E. C. Patil has organized a guest lecture on system design for T.E E&TC students. The resource person available for this seminar was Mr. Amol Jagdale from MIT College, Pandharpur.

Mr. Amol Jagdale also had four years industry experience too. He mainly explained the survival of circuit branch Engineers in this competitive world. According to him, extreme knowledge about small components also helps a person to survive in this competition but whatever you learn must be complete and perfect.

His lecture was full of examples, designs and experiences. He taught several small designs using which he gave solutions to various problems in the society. His perspective towards various small things was surprising for all the students. The students of T.E came to know about the importance of system design due to this seminar.

This workshop was really very helpful for students in a practical point of view

## Placement

AUTOSAR (Automotive Open System Architecture) and Automotive Electronics are two add on courses by KPIT Technologies, Pune, the company which provides product engineering services and IT consultancy. The courses are based on development of vehicular software.

**Khurandal Yashodhan Chandrakant**

**Kagalkar Shreyas Sham**

**Desai Komal Rajkumar**

**Jagajampi Kalyani Shashikant**

**Patil Aishwarya Jaykumar**

**Shinde Aishwarya Amar**

**Shamli Kalekar**

**Sharvani Yadhav**

**Vrushali Patil**

**Shivani Savekar**

**Ashish Chougule**

**Supriya Mithari**

**Neha Pawar**

## Global Edge

Global Edge, a Bengaluru based company, is an embedded software and IT solutions company focused on platform, connectivity and cloud based technologies. Two students were fortunate enough to get through the lengthy recruitment

process and finally placed in the organization.

**Shete Snehal Shadanan**

**Yash Ghodake**

**Kuldeep Thorat**

**Jivan Chavan**

**Saurabh Pola**

**Madhuri Nadkarni**

**Neha Pawar**

**Mayura Kulkarni**

**Amruta Mahajan**

**Kavita Sapre**

**Omkar Chikalwadkar**

**Neha Pawar**

**Abhishek Vernekar**

**Shubham Yedekar**

**Pradnya Muchandi**

**Bharti Sagar**

**Varsharani Sawant**

**Rohini Davane**

**Neha Pawar**

**Amruta Mahagen**

## MOUs

- **KPIT Technologies**
- **SKADA Technology Solutions Pvt. Ltd.**
- **Shimpukade Metals Pvt. Ltd.**

## 9 Amazing facts about E-mail



1. Hotmail, Yahoo and Gmail together account for over 1 billion users.
2. More than 294 billion emails are sent and received daily.
3. 90 Percent of the trillion email messages are spam or viruses.
4. Spam costs businesses over \$20 billion in decreased productivity and technology expenses.
5. Retailers send an average of 16 emails per subscriber in 'busy' months.
6. 36 percent of emails are opened in mobile devices.
7. 2012 open rates are down 2 percent from 2015.
8. Email campaign volumes increased 20 percent in 2015 over 2014 levels.
9. 2014 clicks through rates are up 1% in 2015.

# PIONEER 2k18

KIT is known for Pioneer since it is one of the most esteemed festivals of the institute. This year it underwent many transformations and additions which in turn made it a grand success.

## Technomania

10<sup>th</sup> and 11<sup>th</sup> February

The tradition of tedious technical events was put to an end when ASSETS came up with a completely new concept. The idea was to combine technical skills with smart approach. As per every year's record, PIONEER is one of the most successful events of KITCOEK. This year, E&TC department had organized two interesting events under a name 'TECHNOKARMA'. It included two events namely –DIGITRIUMPH & VOLTAIC PREZ.

On 10<sup>th</sup> March, digitriumph was organized which included a general aptitude, circuit design and a final quiz round Pragati Mohite and Dhanashri. Desai were the winners. The event started at 10.00 a.m. and ended at 5.00 p.m. The prize distribution ceremony took place after the completion of the event.

The second event was voltaic prez which included the solving of G.K questions in a noisy environment in its first round. The second round included description of common things like wall, mat, flower on the spot. The third round consisted of an interview that was judged by Miss. Sonal Lad and Mrs. Monica Sanandam. Sana Aga was the winner of this competition.

The event was successfully organized by ASSTES faculty co-ordinator Mrs. Ashwini Shinde and all the staff and committee members.



Eye hooking decoration of ETC department



Contestants keen to find the solution



ravin Usare and Pratik Diwanji grabbed first place in Ramrajya



Ruturaj Khandare and Suraj Shinde grabbed first place in Technogeek



Ganesh Khadre and Pranav Patil grabbed second place in Technogeek



Guest lecture on Innovation & Opportunities in Electronics by Prof. Nagmode

## Abhivyakti

Feb 12,

A multidisciplinary paper presentation competition organized by ISTE expected authors from two different branches of engineering. As expected, many people enrolled thereby making it difficult for the jury to select the top 26. In addition to this, the authors were given a prestigious opportunity to get their research papers published in the KIT journal. Thus, this year Abhivyakti came up with new challenges for everyone involved in it.



# Latest Trends in Embedded

July 30, 2018

Embedded Systems is one of the favorite domains of the engineering students when it comes to final year projects. Major project is most important from the academics, campus recruitments and career point of view. To give guidance regarding the same, Mr. Chinmay Oak from Excel Technologies, Pune was invited to deliver a guest lecture. He began his session with the introduction to microprocessors, different families of microcontrollers and the decision of their selection based upon the type of application. He enlightened the students about the Embedded C language, its importance, necessity, and relevance to C and why is it preferred to the assembly language. He also focused on the upcoming technologies in the field of Embedded Systems and Robotics and how Raspberry pie is playing a key role in this. At last, he concluded the session by highlighting on the project externals. It was a good learning experience for all the students since it cleared the very basics which were required before anyone could start working on the project.



Mr. Oak talking about Raspberry pie

# Alumuni Interaction

Dec 30, 2017

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Mr. Karmuse encouraging students to ask their programming doubts

Lastly he discussed the most attractive feature of such placement i.e. the salary they get .Everyone was surprised to hear the six digit salary he would get.

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# Parents’ Meet

Feb 24, 2018

In the ETC department, parents’ meet was held with the main motive of conveying the parents the progress of their respective wards. The meet began with introduction to all the faculty members as well the department .The parents were told the importance of industrial training, visits, internships and were asked to motivate their children and thoroughly get them prepared for the campus. The main stress was on KPIT technologies as the the institute has MOU with the organisation and also it hires a good number. In addition to this, the first three toppers of each class as well as the five core members of ASSETS were felicitated by their parents. The meet indeed was a great opportunity where parents ,faculty members and students came together and had a good interaction.



Mr. Sontakke introducing ETC dept to the parents



Parents giving their feedback

# SE Visit to Tomato FM

April 1, 2018

The SE students of E&TC department had visited to tomato FM station as a part of the syllabus. Sontakke Sir was with us as a faculty Coordinator. Students were very excited to receive all the knowledge regarding how the tomato FM works .

Student's enthusiasm raised as they entered in tomato FM station .

There were different sectors such as marketing ,editing sector ,comercial sectors along with technical room .

Student came to know more about signal transmitting and receiving , post modulation ,role of mixer before transition of signal and separation of voice and carrier .For the detailed information ,they demonstrated recording in front of students with the help of some students who were good in singing . Students also came to know how modulation of signal occurs.

They cleared all doubts and queries regarding FM modulating signal and it's modulation .

And all the students of SE class left tomato FM station with more information and satisfaction .



Amruta handing over the mike to Pol Sir

# PCB Workshop

Jan 04, 2018

To make the students familiar with OrCAD a proprietary software tool suite used for Electronic Design Automation (EDA), A Two Days Workshop was conducted jointly by ETC and ELX department and the expert who came was Mr. Upadhye. The main aspects of the workshop were installation of the software, PCB layout and PCB designing .The sections 'layout' and 'designing' were better explained with the help of few circuits. These included Multivibrator using IC555 and power supply. Demonstration of a PCB of multiple layers was given and a booklet on OrCAD was circulated. This workshop received an average feedback because the resource person was unable to meet the time constraints and cope up with the syllabus, because of which students could not get the best out of it.



Mr. Upadhye telling importance of OrCAD



Listeners learning OrCAD

# AC – II and DS expert lecture

March 22, 27, 2018



Prof. S R Mahadik Explaining

Department had organized expert lecture sessions for Analog Circuits 2 and Data Structure. Session for Analog Circuits 2 was taken by Prof. S R Mahadik currently working in J J Magdum College of engineering. Firstly she discussed the basics of lesson Power Amplifier. Later whole discussion related to power amplifier was taken.

The session ended up with discussion of design problems and university questions format. It was nice experience for all students to learn various knowledgeable things with theory.

Session for Data Structure was by Prof. J S Pujari working in KITCOEK. Application of Data Structure were discussed in detail. The concept of trees, stacks, queues, link list were taught by sir. Session gave clear idea about industrial applications of data structure.

Developing a product by illustrating the example of the Smartphone. Before concluding, she insisted the audience to clear their queries if any. Overall the meet received a good response.



Welcome to RAMRAJYA



ASSETS' Members handling the event



Registration Desk

### ***From the HOD's Desk...***



21st century is the century of communication as communication engineering has been growing exponentially in recent years. At KIT we have developed state-of-art laboratories & centers of excellence so as to train our students in Electronics and Telecommunication (ETC) through flexible, adaptive and progressive training programs along with cohesive interaction with the academicians and industries. The big theme today is to focus on creativity and innovation alongside academics. Entrepreneurial wealth creation has been explosive on account of the massive impact made by technology start-ups. To develop thought process of students this News Letter helps.

*Wish you all happy learning here*

Dr. Mrs. Sangeeta R. Chougule  
Head of the Department  
Electronics & Telecommunication Engineering  
KIT College of Engineering (Autonomous) Kolhapur

## ETC Junction

A Newsletter

Electronics  
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