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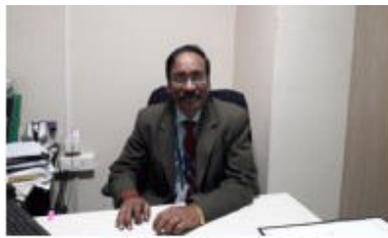
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Scan and get linked with
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“HOD SPEAK”

From HOD's Desk –April 2021



Dr. Sanjay Singh Thakur
Head of the Department

This is one year gone, we are unable to come to the college to interact with each other due to the pandemic coronavirus, it has affected all parts of our life. During this period we started living a new life and adapt to the situation, learning/ teaching/ experimenting online. In earlier issue of our News-letter, we have already mentioned about it. In the previous quarter, we could conduct R&D meet, workshop conducted by professional body activities (From IETE/ ETSA), seminar organized by Alumni and Parent Interaction Committees and regular Mentor- mentee meets were conducted.

During this period, our department could create various Repositories, be it achievement of students/ faculty members, paper presentation or publications. All data of all faculty members, of department, are present online anytime, anywhere.

We will wish our students, all the very best for their future examination. Hope everything will be fine in the future and we are confident to meet in campus very soon after your exam.

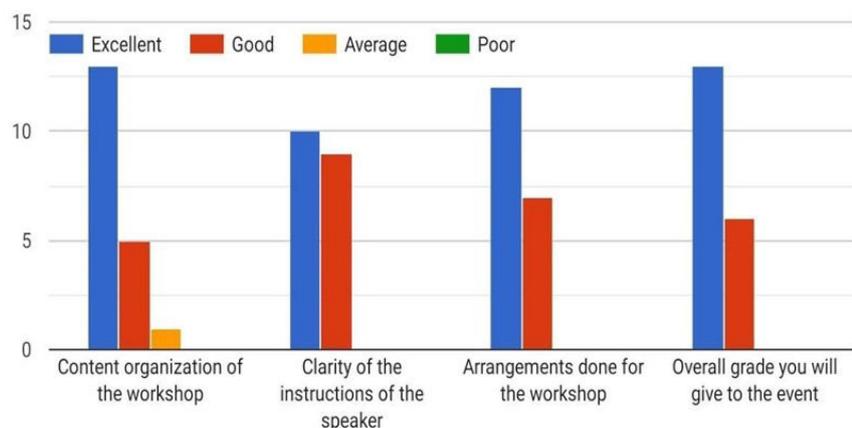
EXTC Department Activities

1. A Seminar on 'Basics of IPR and Indian Patent filling procedure' was conducted on 20th March, 2021 under ETSA Committee. Mr Awab Fakhir (Patent Analyst awarded by government of Maharashtra) were the speaker of this seminar.

The seminar was publicized in VIT for FE ,SE, TE & BE students. A great response from the students was anticipated and it was conducted in a duly manner. Registered participants were provided with link and instructions to join the seminar. Prof Swapnil Ashtekar initiated the seminar with the brief introduction of Mr. Awab Fakhir.

Then seminar began with basic Definition related to rights. In the first part, the basic idea about what an IPR and different types of an IPR explained by our esteemed speaker. In the second part, patentability and copyright and geographical indications was taught. All subsequent doubts of the participants were solved. Explained by giving different examples of patentable items for ease of understanding.

The seminar ended with conclusion given by Tabassum Shaikh one of ETSA Committee member. Figure below shows feedback of the activity. Total strength for the session was 41.



“Book holds a house of Gold”
— Anonymous

Faculty Profiles



Name: Vibha Wali

Designation : Assistant Professor

Department: Electronics & Telecommunication Engineering

Qualification: ME Electronics
Teaching Experience : 20 Years

Areas of Interest: Object oriented programming, Neural networks, Image Processing, Database management



Name: Dattatray Bade

Designation: Assistant Professor

Department: Electronics & Telecommunication Engineering

Qualification: ME Electronics and Telecommunication

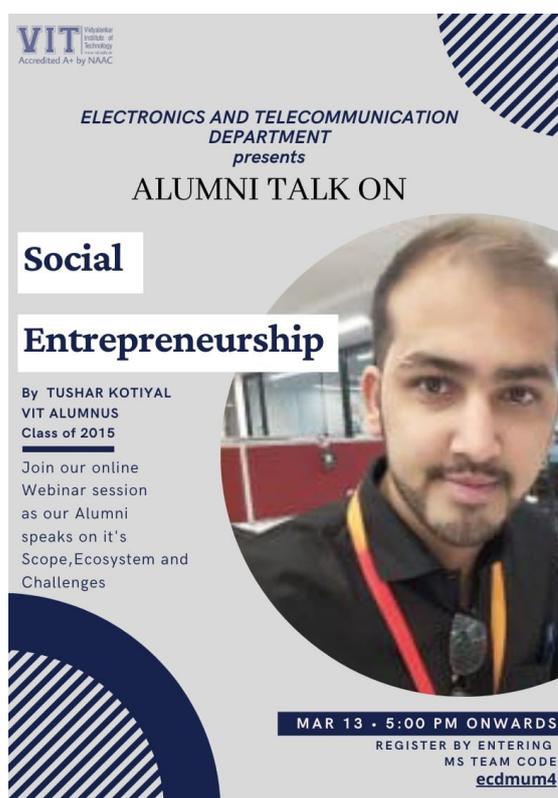
Teaching Experience : 16+ Years

Areas of Interest: Circuit theory and networks, Signals and systems, Probability and random processes,

2. An Alumni talk on 'Social Entrepreneurship' was conducted on 13th March, 2021 by EXTC Department under Alumni committee. Mr.Tushar Kotiyal, VIT Alumnus of Batch 2015 had been invited as a Guest speaker for the session. The session was arranged for SE, TE, BE students of EXTC Department. The objective behind organizing this talk was to introduce students to the field of 'Social Entrepreneurship'. In the session, Mr.Tushar spoke on Scope, Ecosystem and challenges in the field of 'Social Entrepreneurship'. He briefed students on this topic with real examples of small and large companies. He helped students understand the secrets behind huge success of such companies. He very well presented the statistics behind the success of companies that excelled in this field.

The session followed by question answers round and the speaker was very happy to see curiosity of students. The strength for the session was 31. The session was organized under the guidance of Dr.Sanjay Singh Thakur.

Following is the picture of the banner for the talk:



3. Prof.Satendra Mane along with his team members conducted Project review sessions on 21st March 2021 and 28th March 2021 for BE students. This session was kept to monitor the performance and completion status of their projects. All groups were present for the review session and were guided by the panel members.

4. Regular R & D Meetings were conducted in the department under the R & D Committee headed by Dr.Arpit Rawankar.

5. Department Advisory Board meeting was successfully conducted under the leadership of Dr.Sanjay Singh Thakur on 31st March, 2021. The agenda for the meeting was to discuss and get clarity on seven different criteria's. Professor's from reputed colleges and Top managers from corporate were invited as dignitaries for the meeting. Also Alumni and current student representatives were invited. There were many points discussed in the meeting. Following are the few points to name:

- Discussion teaching-learning process, End semester results, Project quality, Students overall performance, Faculty Information and contribution etc
- Discussion on Recognition and awards.

Total strength for the meeting was 33.

"I cannot teach anybody anything. I can only make them think "

— Socrates

EXTC ii



Name of Alumnus : Ajay Chaurasia

Batch : 2020

Qualification : Bachelor of Engineering.

University of Mumbai

Message: I feel pride in writing few lines for my Institute. Vidyalkar Institute of technology is a wonderful place to study . I wish to highlight key points of VIT.

VIT Strives hard to enrich learning experience for students. Being a diploma student , I feel that special attention is given in VIT to students coming from diploma background to upgrade their analytical thinking. The three years I spend in VIT were fascinating. Not only does VIT offers top class coaching but also gives platform for students to showcase their talent. The students council is an asset of VIT and the way it conducts activities in cultural,sports,technical domain is outstanding.

It is difficult to explain in few words about my institute . All I can say is I am groomed in VIT to a level where I can confront challenges in life.

Research topic of the Quarter

Nanowire could provide a stable, easy-to-make superconducting transistor



Figure 1: MIT Researchers are developing superconducting Nanowire, which could enable more efficient superconducting electronics . Image: Christine Daniloff,MIT

Superconductors — materials that conduct electricity without resistance — are remarkable. They provide a macroscopic glimpse into quantum phenomena, which are usually observable only at the atomic level. Beyond their physical peculiarity, superconductors are also useful. They're found in medical imaging, quantum computers, and cameras used with telescopes.

But superconducting devices can be finicky. Often, they're expensive to manufacture and prone to err from environmental noise. That could change, thanks to research from Karl Berggren's group in the Department of Electrical Engineering and Computer Science.

The researchers are developing a superconducting nanowire, which could enable more efficient superconducting electronics. The nanowire's potential benefits derive from its simplicity, says Berggren. "At the end of the day, it's just a wire."

Berggren will present a summary of the research at this month's IEEE Solid-state Circuits Conference.

Resistance is futile

Most metals lose resistance and become superconducting at extremely low temperatures, usually just a few degrees above absolute zero. They're used to sense magnetic fields, especially in highly sensitive situations like monitoring brain activity. They also have applications in both quantum and classical computing.

Underlying many of these superconductors is a device invented in the 1960s called the Josephson junction — essentially two superconductors separated by a thin insulator. "That's what led to conventional superconducting electronics, and then ultimately to the superconducting quantum computer," says Berggren.

However, the Josephson junction "is fundamentally quite a delicate object," Berggren adds. That translates directly into cost and complexity of manufacturing, especially for the thin insulating layer. Josephson junction-based superconductors also may not play well with others: "If you try to interface it with conventional electronics, like the kinds in our phones or computers, the noise from those just swamps the Josephson junction. So, this lack of ability to control larger-scale objects is a real disadvantage when you're trying to interact with the outside world."

Reference: <https://www.eecs.mit.edu/news-events/media/nanowire-could-provide-stable-easy-make-superconducting-transistor>

Conference Updates

1. **International conference on recent innovations in Computer science, Engineering and Technology (ICRICSET)**

When: 11th to 12 th April,2021

Venue: Pune, India

2. **International conference on Control, Automation, Robotics and Vision Engineering (ICCARVE)**

When: 24th To 25th September,2021

Venue: Pune, India

Department Faculty members currently Convenor's for Institute level Committee

1. **Prof Vibha Wali**
2. **Prof.Dattatray Bade**
3. **Prof.Arpit Rawankar**
4. **Prof.Vijay Purohit**
5. **Prof.Dhananjay Patel**
6. **Prof.Swapnil Ashtekar**
7. **Prof.Santosh Jagtap**

Academics

- **End of Even Semester**
When: April, 2021
- **Orientation Program for SE, TE and BE students for Even 2020-21 completed**
When: (21st Jan to 23rd Jan 2021).
- **Even Semester Practical exams :**
When: Tentatively May 2021

Achievements of the Department

1. Dr.Sanjay Singh Thakur reviewed a paper titled 'On parametric evaluation of butterfly shaped patch antenna' for springer journal .
2. Dr.Sanjay Singh Thakur had been invited to be a Conference chair to the 3rd International conference on latest trends in Engineering and Management(ICLTEM-2021) which was held on Feb, 26th and 27th,2021.
3. Dr.Saurabh Mehta appointed as a mentor for OE4BW (Open education for better world) for the year 2021 .
4. Dr.Saurabh Mehta had been appointed as resource person at many FDP/STTP (Two to Three talks during the quarter).
5. Dr.Saurabh Mehta had been invited as resource person for the UGC HRDC organized refresher's course on Robotics and IoT at Mulund College of Commerce , sponsored by RU-SA.
6. Dr.Dhananjay Patel presented a research paper titled 'Real time parking lot occupancy detection with VGG 16 deep neural network using decentralized processing for public,private parking facilities' at ICAECT 2021 International conference.

Student Testimonial :

"Be willing to be a better beginner every single morning."My every single day ever since I had joined VIT perfectly fits the message hidden behind this quote. For me everyday used to be a new learning, opening up new avenues of exposure in this world and a wholesome experience about how to bring out the best version of myself. Be it academics and co-curricular, getting encouraged to put your best foot forward anywhere you go was the motivation I received from almost all the faculties I have been associated with till date.

The Technical Committees and Students Council have enabled me to grow as a person. Learning newer dimensions about various aspects associated with electronics and telecom domain, the value added courses and interactive assignments have always added a lot to my knowledge. Encouraging students to take up leadership and excel in every way has always motivated me to be the better myself everyday. Thank you VIT!

. - Priyanka Kulkarni
SE EXTC-A



Latest News in Electronics domain:

Oxford and UCL Researcher's demo quantum capabilities using standard IC'S.

Quantum motion, quantum computing start up led by academics from UCL and Oxford university have demonstrated state of the art quantum capabilities using industrial-grade silicon chips helping to set up a blueprint for how quantum chips can be manufactured at scale using existing manufacturing processes.

Reference : <https://www.electronicweekly.com/news/business/oxford-ucl-researchers-demo-quantum-capabilities-using-standard-ics-2021-03/>

Editor

Prof. Amey Revandkar

EXTC IV