

### **Department of Electronics & Communication Engineering**

### e-Newsletter July 2020 to December 2020

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### **Advisory Board**

Prof. (Dr.) M. K. Jha Director, ABESIT

Dr. Hari Mohan Gaur Associate Professor& Head, ECE

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B.Tech, ECE @ABESIT
An NBA Accredited Program

#### **Vision**

To impart in depth knowledge to the students of Electronics & Communication Engineering for achieving academic excellence, professional attitude and ethical values, inculcating research culture to meet the challenges of global industrial demands.

#### **Mission**

- Impart quality and value based education, with practical orientation to transform students into the skilled, trained and competent individuals.
- Infusing research culture among students and faculty so that the Department be recognized as Center of Excellence in various domains.
- Inculcating team work, leadership qualities, professional ethics and social responsibilities.
- Prepare graduates for working in multicultural and multidisciplinary environment.

#### **Program Educational Objectives**

- Graduates of the program will be able to identify and apply domain specific knowledge to have a successful career in real world applications by keeping abreast of the technological changes.
- Graduates of the program will continue to learn and adapt in a world of constantly evolving technology through advanced degrees, professional courses and/or research.
- Graduates of the program will be committed to acquire professional ethics, moral values and devotion to duty so that they prove to be worthy citizen of India with International outlook

### HoD Speak...

The Efforts made today will surely reflect in the achievements of tomorrow. It depends on our decision that we want short term happiness or accomplishment of goal. Put your every step of life carefully to enjoy success.

Dr. Hari Mohan Gaur

# **Expert Talks/Webinars**

Faculties of the Department attended an Expert Session on "IP Management in Innovation and Start-ups" on 4th September, 2020, organized by Institute Innovation Cell. Mr. Sandesh Agarwal from IpCurate Labs India delivered the talk and made everyone aware about its importance in the development of Start-ups.





Students and Faculties of the Department attended 5-days Workshop on "Cybersecurity" from 7th September, 2020 to 11th September, 2020. Mr Santosh Chaluvadi, Founder & CEO, Supraja Technologies, gave an interactive session on the type of hackers & steps of hacking. A case study was also taken up to give the clear understanding of the covered topics. Total 350 participants attended this workshop.

Faculties attended a National Webinar on "National Education Policy (NEP)" conducted by Disha Bharat on 26th November 2020. The key Speakers of the session were Dr. Anil Sahasrabudhe, AICTE Chairman, Dr. M.K. Shridhar, Member of Drafting Committee NEP2020 and Dr. CN Ashwath Narayan who shared their experiences with respect to the changes in education policies and systems over the years. Smt. Rekha Ramachandran, Founder and Secretary, Disha Bharat focussed mainly on the importance of value education as well as in the adoption of a holistic education approach for the current and upcoming student generations.





### **Club Activities**





Technical Club 'Technovation', owned by the Department organized a quiz contest, based on, "Embedded Systems and IoT" on 30th October, 2020.

Students of all the Branches participated in the event.

Cultural Club 'Orators', owned by the Department organized a "Story through Your Lens" event on 5th September, 2020. The participants of the event were to capture some images around them and convey an inspiring story.

Students of all the Branches participated in the event enthusiastically.



### **Achievements**

### Smart India Hackathon 2020: A National Level Competition









Teams from various Institutes of different parts of the country, comprising students of different years and branches participated in the competition.

Shikhar Kant Sinha, 3rd Year ECE & his team

secured

1st Position

in

Smart India Hackathon, 2020

For developing an enterprise level

"Instant Communication-Solution Provider"

for Department of Financial Services, Government of India



# Hacknovate 2.0 - 12 hrs Virtual Hackathon A National Level Competition organized by ABESIT



Aradhya Nain



with their project

"Patient Monitoring System"

secured

#### 2nd Position

among 64 teams from various parts of the country in

the competition

organized by Institution Innovation Council from 6th Nov to 7th Nov, 2020

Ritik Bhardwaj

### Tata Crucible Hackathon, 2020: A National Level Event







**Veral Agrawal**, 4th Year ECE & his team secured

2nd Position

in

Tata Crucible Hackathon, 2020, for providing the solution of problem on "Development of Innovative Safety Measures for two-wheelers"



### **Placements**



Veral Agrawal
Nagarro Software
&
3 GeoMETre
Innovations Pvt. Ltd.



Kajal Verma
Netprophets
&
3 GeoMETre
Innovations Pvt. Ltd.



Pratyush Priyansh *TCS Limited* 



Vikas Tiwari Netprophets



Kajal Tyagi Netprophets



Aryan Shanker TCS Limited



Arushi Samanth
3 GeoMETre
Innovations Pvt. Ltd.



Vikas Raghav Country Holidays Inn & Suites Pvt Ltd.



Naveen Sharma
Country Holidays
Inn & Suites Pvt Ltd.



Utkarsh Shivam GreyOrange

## **Research & Publications**

The department has received a grant of Rs 3,28,333/from



AICTE under AQIS 2019-20 scheme for the conduction of Short Term Training Program (STTP)

on



"Research Confront and Document Typesetting using LaTeX: 202X"

Program Coordinator: Prof. (Dr.) M.K Jha, Director, ABESIT Program Co-Coordinator: Dr. H.M Gaur, Assoc. Prof. Head. ECE

### Journal Article

HM Gaur, AK Singh, A Mohan, M Fujita, DK Pradhan, "Design of Single Bit Fault Tolerant Reversible Circuits." IEEE Design & Test, vol. 38, no. 2, pp. 89-96, 2021. (Indexing: SCI, IF: 3.022)



Dr. Gaur got this publication in the Journal of International Repute, published by IEEE. The work is done in collaboration with the professors of NITK, IIT-BHU, University of Tokyo, Japan and University of Bristol, UK

### **Upcoming Events**

- STTP on Research Confront and Document
   Typesetting using LaTeX: 202X from 11th January
   2021 onwards
- "Virtual Dance Competition" by Orators Club on 3rd Feb,2021
- Workshop on "Prototype & Product: Schematic & PCB Design " by Technovation club on 1st Feb, 2021

### "Mars 2020 - Perseverance Rover"



Aryan Shanker Final Year, ECE

The Mars 2020 Perseverance Rover will search for signs of ancient microbial life, which will advance NASA's quest to explore the past habitability of Mars. The rover has a drill to collect core samples of Martian rock and soil, then store them in sealed tubes for pickup by a future mission that would ferry them back to Earth for detailed analysis. Perseverance will also test technologies to help pave the way for future human exploration of Mars.

Strapped to the rover's belly for the journey to Mars is a technology demonstration — the Mars Helicopter, Ingenuity, may achieve a "Wright Brothers moment " by testing the first powered flight on the Red Planet.

What is the Mars 2020 spacecraft?

The spacecraft is the protective "spaceship" that transports the precious cargo, Perseverance, from Earth to Mars. The spacecraft is separate from the launch vehicle, the rocket that carries the spacecraft, and the rover inside it, outside of Earth's atmosphere and gravitational pull.

The spacecraft consists of several mechanical components – the cruise stage, descent stage, backshell, and heat shield – plus the rover. These major parts of the Mars 2020 mission spacecraft design were based on the successful Mars Science Laboratory mission, which delivered the Curiosity rover to Mars in August 2012.

After its seven-month cruise through space, the Mars 2020 spacecraft maneuvers down through the Martian atmosphere to deposit Perseverance onto the Red Planet. In the process of entry, descent and landing, certain spacecraft parts fall away one by one until the rover is safely on solid Martian ground.