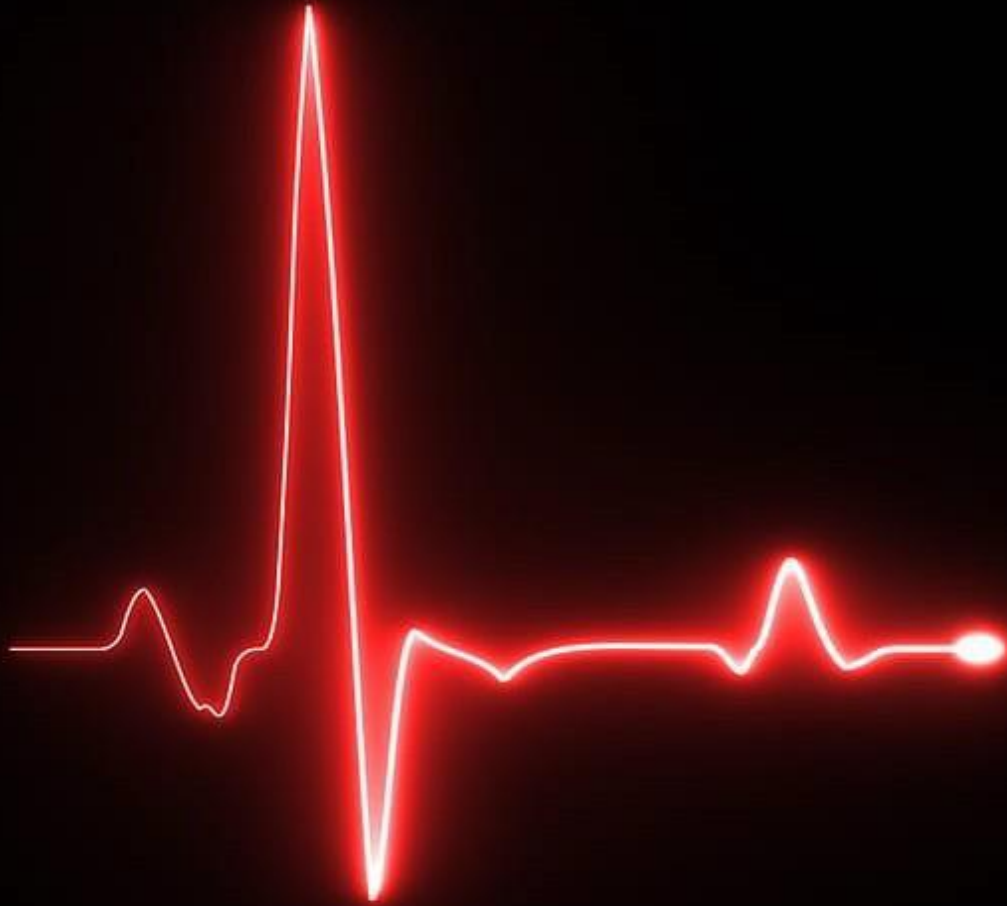


# THE PULSE

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NEWSLETTER  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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## **Vision**

To emerge as a centre of academic excellence in the field of Electronics & Communication Engineering to address the dynamic needs of the industry upholding moral values.

## **Mission**

- Impart in-depth knowledge in Electronics & Communication Engineering to achieve
- academic excellence.
- Develop an environment of research to meet the demands of evolving technology.
- Inculcate ethical values to promote team work and leadership qualities befitting societal requirements.
- Provide adaptability skills for sustaining in the dynamic environment

# MESSAGE FROM FACULTY

## *Current Research Trends*

### *Trend 1: Data Fabric*

*Regardless of where the data is located, data fabric offers a flexible, resilient integration of data sources across platforms and business users, making data accessible everywhere it is needed.*

### *Trend 2: Cybersecurity Mesh*

*In order to increase overall security and bring control points closer to the assets they are intended to safeguard, cybersecurity mesh enables best-of-breed, standalone security solutions to cooperate.*

### *Trend 3: Privacy-Enhancing Computation*

*Due to changing privacy and data protection legislation as well as rising consumer concerns, privacy-enhancing computation safeguards the processing of personal data in untrusted contexts.*

### *Trend 4: Cloud-Native Platforms*

*Building durable, elastic, and agile new application architectures using cloud-native platforms enables us to adapt to quick changes in the digital landscape.*

### *Trend 5: Decision Intelligence*

*An effective strategy to enhance corporate decision-making is called decision intelligence. In order to inform, learn from, and improve decisions, it represents each choice as a collection of processes.*

### *Trend 6: Hyperautomation*

*The goal of hyperautomation is to quickly discover, validate, and automate as many business and IT operations as is practical*

### *Trend 7: AI Engineering*

*To speed up the supply of AI, AI engineering automates updates to data, models, and applications. AI engineering will operationalize the delivery of AI in conjunction with sound AI governance to guarantee its continued business value.*



- **Prof. SUSANTH G**

# EVENTS

1. Organized Six Days Workshop on “Artificial Intelligence” in collaboration with Intel Corporation held during 11.07.2022 to 16.07.2022.
2. Organized a Talk on “We The Engineers” delivered by our Alumnus Mr.Sanjith M of 2015-2019 Batch held on 13.07.2022.
3. Organized Departmental level orientation programme for the academic year 2022-2023 held on 14.07.2022.
4. Dr.Aneesh.V participated in “IEEE International Conference on Electronics, Computing and Communication Technologies”, Organized by IEEE Bangalore Section, July 2022.
5. Dr.Harimurthy and Dr.Vinay Jha Pillai participated in “First International Conference on Technologies, Sustainable Development Goals and Academia 2022 (ICTSGA-1)”, July 2022.
6. Six new faculty members have been inducted in the Department of ECE during this academic year viz. Mr.Manish Varun Yadav, Dr. Gracia.D, Dr. Nagaraj P Yamanakkanavar, Dr. Neethu.P.S, Dr.Praghash.K, Ms. Priyanka Biswas and Mr. Jerin Geo Jacob.
7. Intel Unnati Rapid Challenge, Summer 2022 won by Angela Maria Peter(II M.Tech), Prem Kumar(IV B.Tech), Gonugunta Bhaskar(IV B.Tech), Erol John D’Silva(IV B.Tech) for the work “Security Implications of Hosting Multiple Tenants in FPGA” under the Faculty Guide of Dr.Sudhi Sudharman, with the cash prize of Rs. One Lakh and also received Internship offer with the stipend of Rs.45,000/month and Incentive of Rs.80,000/
8. Aradhya Bajpeyi(III B.Tech), Vibhor Bhatnagar(III B.Tech), Kamallesh Kumar(III B.Tech), Santhosh Kumar(III B.Tech), Kusal Narayana(III B.Tech) under the Faculty Guide Prof.Shashi Kumar.D, Shortlisted in Student Project Design Contest, Srijan 2022 and received Rs.5,000 as Seed Money for Project Implementation.

## STUDENT CONNECT

### What Is the James Webb Space Telescope?

The largest and most potent space telescope ever created is the James Webb Space Telescope. It will enable researchers to examine the state of the universe 200 million years after the Big Bang. Some of the very first galaxies to develop will be visible in photographs taken by the telescope. Additionally, it will be able to monitor solar system objects beyond Mars, see into dust clouds to identify where new stars and planets are developing, and analyse the atmospheres of other planets.

It is enormously large.

The Webb telescope is the size of a tennis court and is as tall as a three-story building. Because it is so large, it must fold like an origami figure in order to fit inside the rocket. It can see through dust clouds. The universe is seen to the James Webb Space Telescope in light that is invisible to the human eye. Infrared radiation is the name of this light, and humans experience heat from it. To see through smoke during a fire and save people, firefighters utilise infrared cameras. Our universe's dust will be visible to the James Webb Space Telescope thanks to its infrared cameras. Looking into those dust clouds, where stars and planets are formed, may provide fascinating new information! It will also be able to observe things that are so far away that the universe's expansion has caused their light to shift from visible to infrared, like the initial galaxies!. To assist reduce heat and light from the Sun, it dons a "hat." The cameras on the Webb telescope are sensitive to solar heat. Webb has a sunshield to shield its equipment and mirrors from the sun, just like you could wear a hat or visor to keep the sun out of your eyes. The sunshield for the telescope is roughly the size of a tennis court. The difference in temperature between the sun- The telescope's facing and shaded sides are hotter than 600 degrees Fahrenheit! It sees the cosmos by collecting and focusing light from far-off objects using enormous, gold-coated mirrors. More substantial mirrors, the telescope can see, the more specifics. A huge, weighty mirror is incredibly challenging to send into space. Therefore, engineers created 18 smaller mirrors that fit together like a puzzle for the Webb telescope. Inside the rocket, the mirrors are folded, and once in orbit, they unfurl to form a single, enormous mirror.

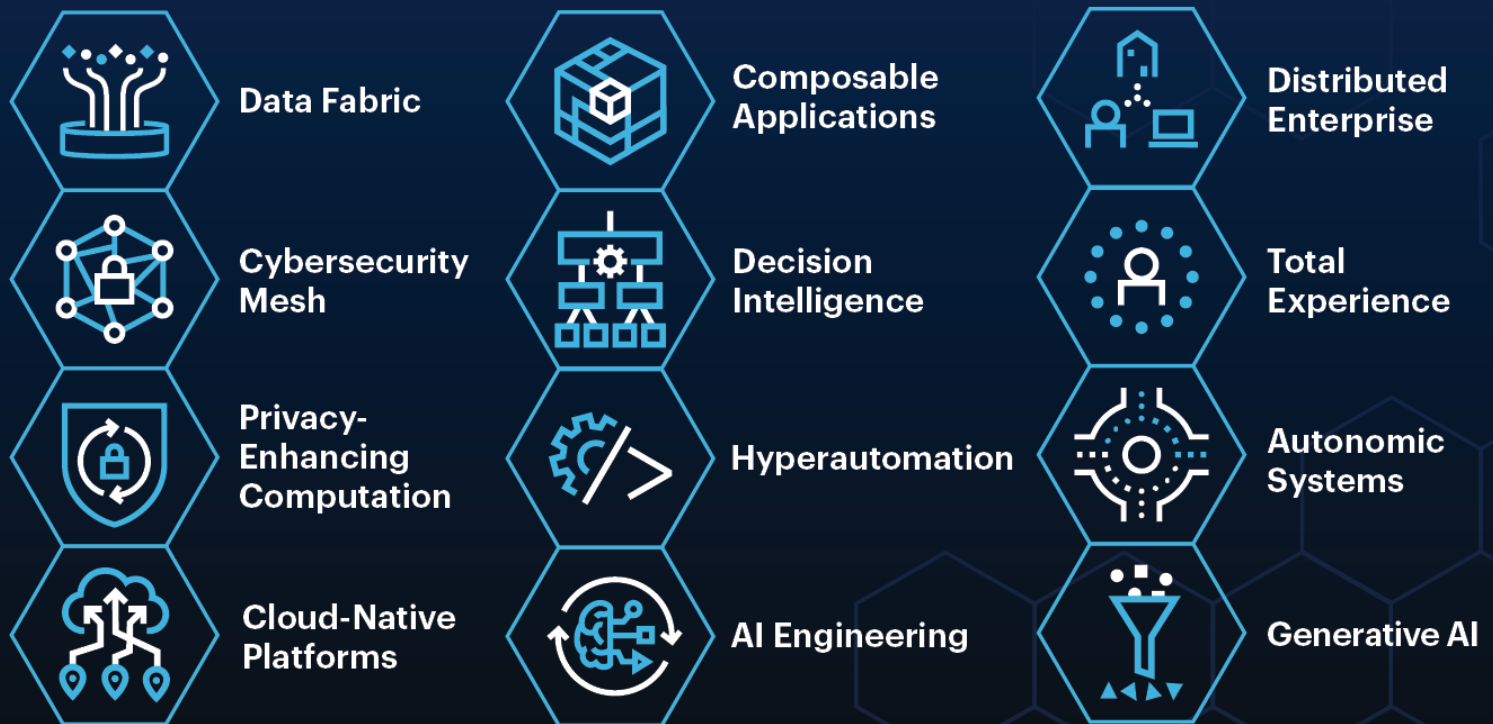
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**Tendral Narayanan (5BTEC)**

**Electronics and Communications Engineering**

# STUDENT CONNECT

## Top Strategic Technology Trends for 2022



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**Kindly share your thoughts and research experiences via e-mail to our team, and be featured in next month's issue!**