



Bishop Cotton Women's Christian College

BITS & BYTES

Department of Computer Science

Volume 4



Faculties

Mrs. Suja D Shanthi

Associate Professor, HOD
MCA., MPhil

Mrs. Ann Kuruvilla

Assistant Professor
M.Sc(IT)

Mrs. Reeja Esther

Assistant Professor
MCA.

Mrs. Jayakiruba A

Assistant Professor
M.Sc (Software Systems)

Mrs. Manjula M

Assistant Professor
MCA., PGDCA., M.Phil.

BITS & BYTES

Bishop Cotton Women's Christian College

2020 – 21



E- Newsletter by the Department of Computer Science

The Department of Computer Science was established in 1989 and provides BCA and BSC courses. We've witnessed how swiftly technology has enabled us to adapt and bring remote learning, online education and global communication to fruition in the last academic year.

The Department of Computer Science seeks to educate and motivate students to explore new vistas and seek technological answers to everyday issues in an ever-changing and adaptive world of technology.

The Department of Computer Science offers multidisciplinary and certificate courses in Computer Science, allowing students to focus on their career goals or pursue higher education and research. This year, we are honoured to publish the fourth issue of this e-newsletter. I hope it is useful in providing insight into the department's operations.

Volume 4

EVENTS REPORT

- ITK Education Services Private Limited, Chennai, hosted a four-day national technical webinar (4th to 7th august 2020). The webinar drew over 175 students and faculty members.
- On August 20th, an online E-quiz competition was held, with 150 students participating.
- On the 26th of august, the Online Coding Competition 'DECODE' was held.
- From September 9th to September 23rd, a Bridge course for first-year BCA and BSC students was held.
- A guest lecture on "Computer Vision And Machine Learning" was given on December 11, 2020. Mr. Varghese P K, project associate, Robert-Bosch center for cyber-physical systems, Indian Institute of Science, Bengaluru, was the resource person.
- On December 16, 2020, The Department Newsletter, BITS & BYTES (volume 3) was published in the academic year 2019-2020.
- Online MOOC courses on topics such as DBMS, demystifying networking, cloud computing, big data, and python for data science have been completed by BCA students.
- On June 30th, 2021, the Department Of Computer Science hosted a Career Guidance Programme.

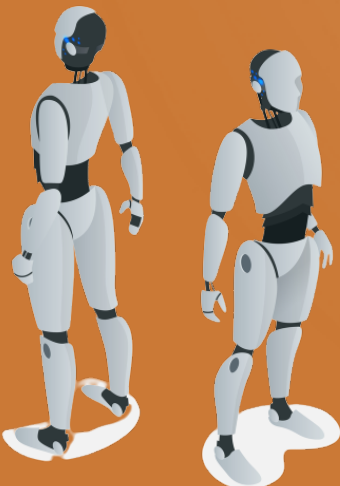


EVENTS

National Level Webinar

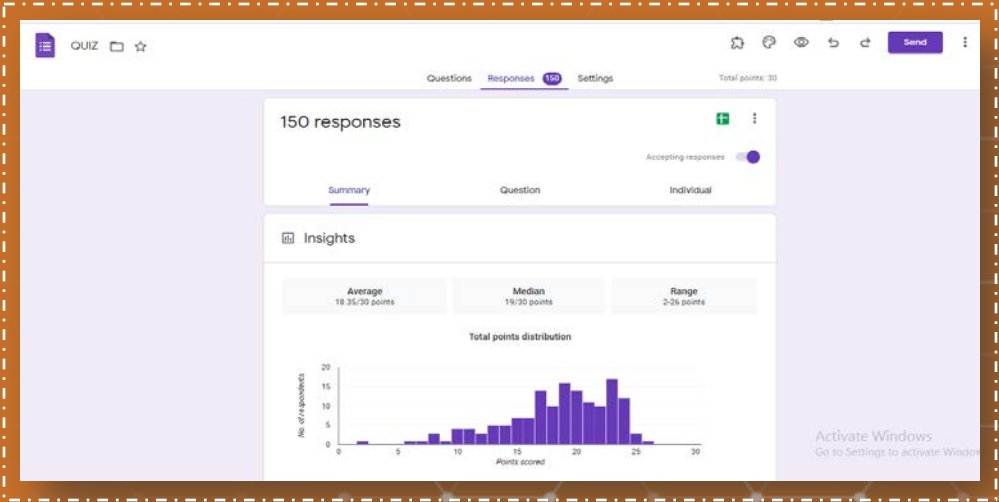
ITK Education Services Private Limited, Chennai, hosted a four-day national technical webinar (4th to 7th august 2020). The webinar drew over 175 students and faculty members.

- ▶ **Day 1:** On 4/8/20 the webinar was conducted on “ Robotics “. Mr. Aravind Ramachandran, Senior Manager, MTAB Technology Center, and Mr. Joseph M, Founder and Managing Services Pvt. Limited, were the resource persons.
- ▶ **Day 2:** On the 5/8/20, a webinar on "Low Code Automation with Zoho" was held. Mr. Joseph M and Ms. Sowmya B, Vice President, ITK Solutions, were the resource persons for the second day.
- ▶ **Day 3:** On 6/8/20, a webinar on "Machine Vision and Intelligence" was held. Dr. Rinu, Associate Professor at the SRM Institute of Science and Technology, served as the third day's resource person.
- ▶ **Day 4:** On 7/8/20, a webinar was held on the theme of "Smart Factory Automation." Mr. Aravind R and Mr. Joseph were the resource persons for the fourth day.



National Level Intercollegiate Competition

Intercollegiate competitions at the national level were held online. On August 20th 2020, an E-Quiz competition was held, with 150 students participating.



QUIZ RESPONSES



E-CERTIFICATE ISSUED FOR ALL PARTICIPANTS

Bridge Course

A bridge course was held for first-year BCA and BSC students to assist students from a variety of backgrounds. It was held from September 9th to September 23rd, and it assisted students in filling up the gaps in their computer skills. The topics to be covered during these sessions were planned ahead of time, and the course was delivered according to the schedule.



E - Newsletter

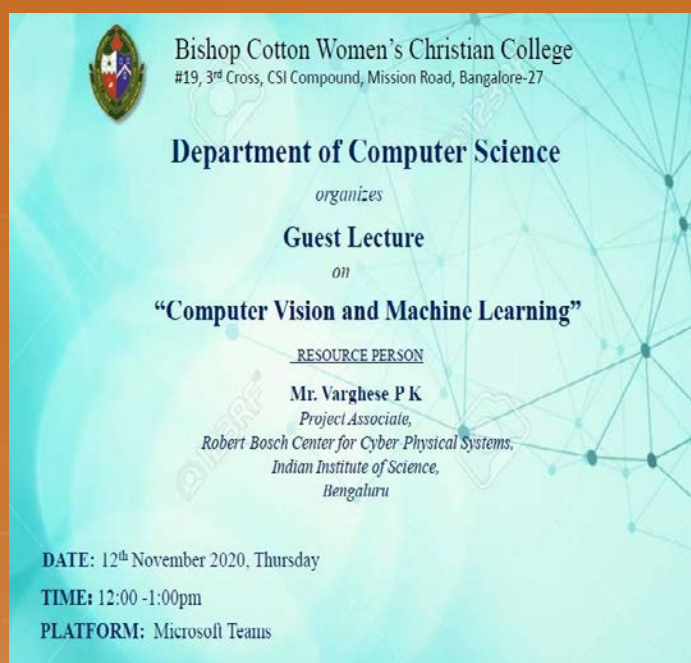
On December 16, 2020, The Department E- Newsletter Bits & Bytes (Volume 3) was published for the academic year 2019-2020.



Guest Lecture

A guest lecture on "Computer Vision and Machine Learning" was given on December 11, 2020. Mr. Varghese P K, Project Associate, Robert-Bosch Center for Cyber-Physical Systems, Indian Institute of Science, Bengaluru, was the resource person. The guest speaker drew a total of 98 students from the BCA programme. The lecturer spoke to the students about Computer Vision, Computer Vision Integration with Machine Learning, and Machine Learning Applications.

The lecturer spoke to the students about Computer Vision, Computer Vision Integration with Machine Learning, and Machine Learning Applications. The students were given an overview of several actual Deep Learning, Neural Networks, and Artificial Intelligence applications. It was also a fantastic move on the Department's behalf to hold this virtual session of knowledge sharing and growth, especially during this pandemic.



The poster features a light blue background with a network diagram. At the top left is the college crest. The text is centered and reads: Bishop Cotton Women's Christian College, #19, 3rd Cross, CSI Compound, Mission Road, Bangalore-27. Below this is the Department of Computer Science, which organizes a Guest Lecture on "Computer Vision and Machine Learning". The resource person is Mr. Varghese P K, Project Associate at the Robert Bosch Center for Cyber-Physical Systems, Indian Institute of Science, Bengaluru. The event details are: DATE: 12th November 2020, Thursday; TIME: 12:00 -1:00pm; PLATFORM: Microsoft Teams.

Bishop Cotton Women's Christian College
#19, 3rd Cross, CSI Compound, Mission Road, Bangalore-27

Department of Computer Science
organizes
Guest Lecture
on
"Computer Vision and Machine Learning"

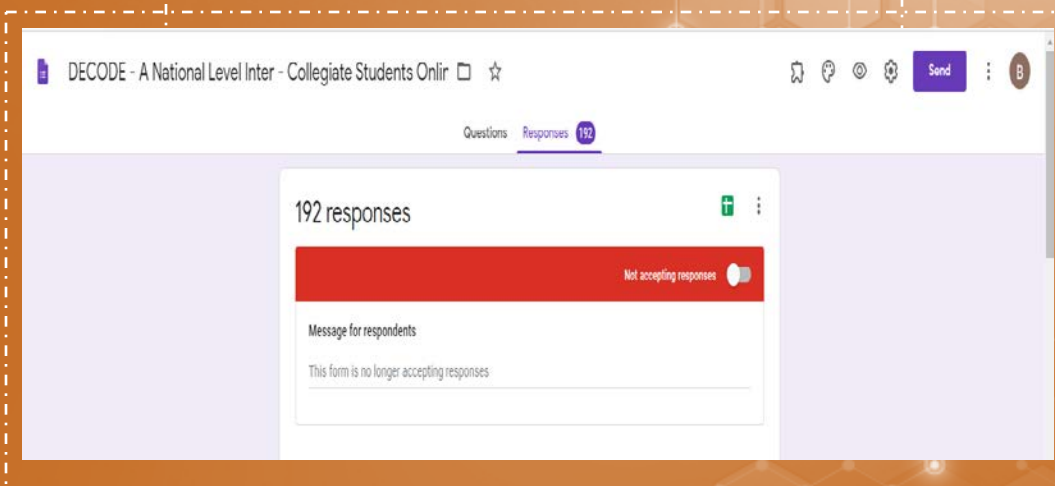
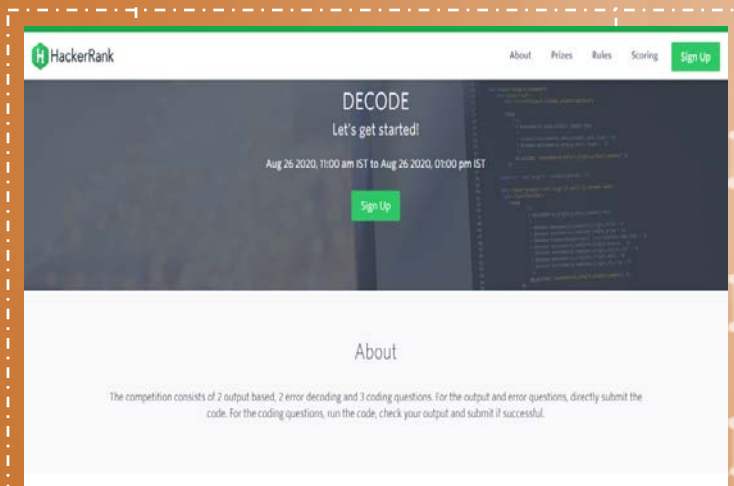
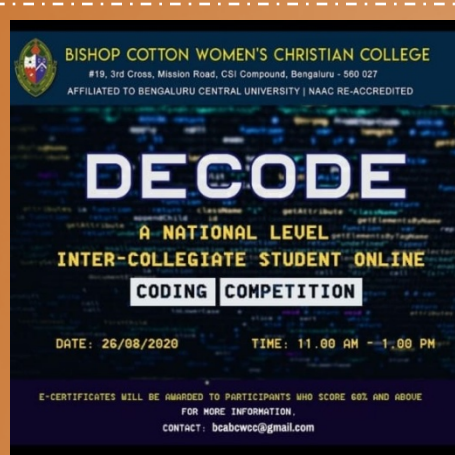
RESOURCE PERSON
Mr. Varghese P K
Project Associate,
Robert Bosch Center for Cyber-Physical Systems,
Indian Institute of Science,
Bengaluru

DATE: 12th November 2020, Thursday
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PLATFORM: Microsoft Teams



Decode

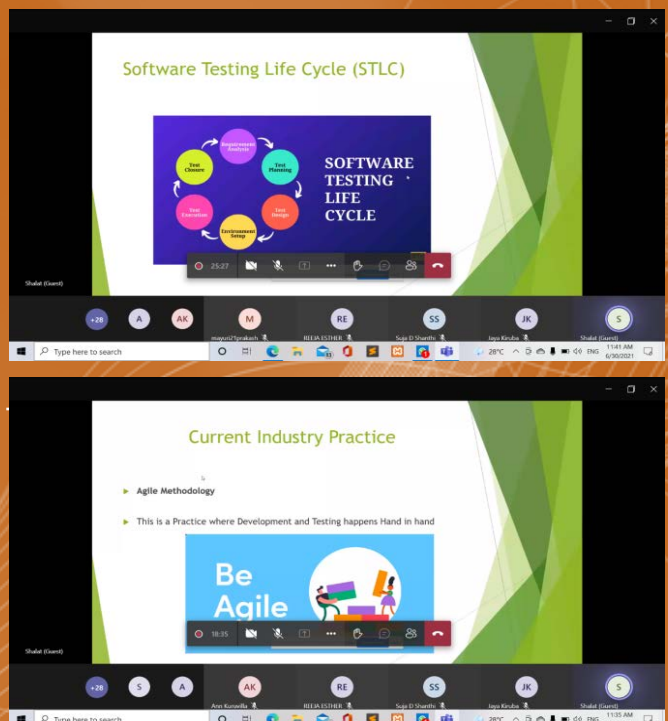
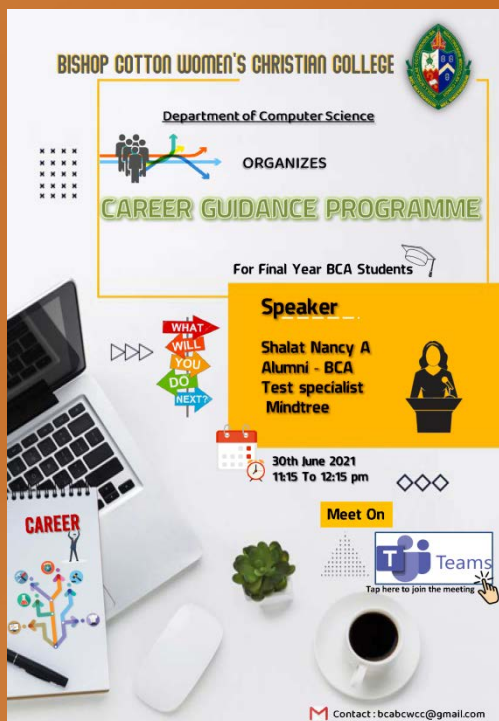
On the 26th of August, 192 students participated in the online coding competition 'Decode' and E-certificates were given to all of the winners.



CAREER GUIDANCE PROGRAM

On June 30th, 2021, the Department Of Computer Science hosted a Career Guidance Programme for Final Year BCA students.

Our speaker was an alumni of ours. Ms. Shalet Nancy spoke about the current state of the testing industry. We learnt the fundamentals of testing as well as how it can help us develop in our jobs.



STUDENT ACHIEVEMENTS



Meher Aisha, a student of the 2017 batch, has enrolled in the University of Passau in Germany to pursue a master's degree in artificial engineering.

BCA TOPPERS - BATCH 2018



**SAUDA
FATHIMA**
CGPA
8.65



BI BI AYESHA
CGPA
8.59



**EV SHAHADA
IQBAL**
CGPA
8.49



JANAVI
CGPA
8.46



RUCHIKA
CGPA
8.4



WEBINARS AND QUIZ

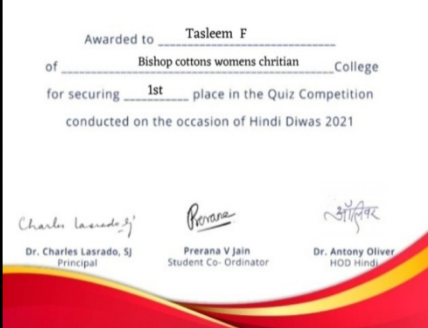
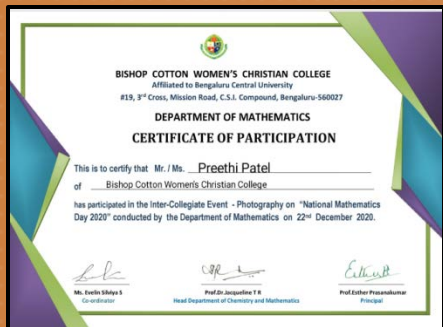
Many students have been inspired to learn and use current technology as a result of the lockdown. BCA students have avidly engaged in a variety of webinars and quiz hosted by various colleges.

- ☒ 33 students from III BCA took part in an IBM skill build master class on resume writing.
- ☒ On August 20, 2020, a majority of students from the II and III BCA participated in and successfully passed an online quiz hosted by Bishop Cotton Women's Christian College.
- ☒ KLE Nijalingappa College hosted a "National level events series IT management competition" in 2020, and 15 students from II BCA participated.
- ☒ Bishop Cotton Academy of Professional Management hosted a national level mathematical quiz, which was attended by approximately 25 II BCA students.
- ☒ On November 12th, 2020, 98 students from the BCA stream attended a guest lecture given by the Department of Computer Science at Bishop Cotton Women's Christian College on "Computer Vision and Machine Learning."
- ☒ On June 30th, 2021, the Department of Computer Science hosted a CAREER GUIDANCE PROGRAM for FINAL YEAR BCA students.
- ☒ Around 34 students from III BCA participated in the intercollegiate online quiz hosted by St Anne's first grade college for women and received certificates.

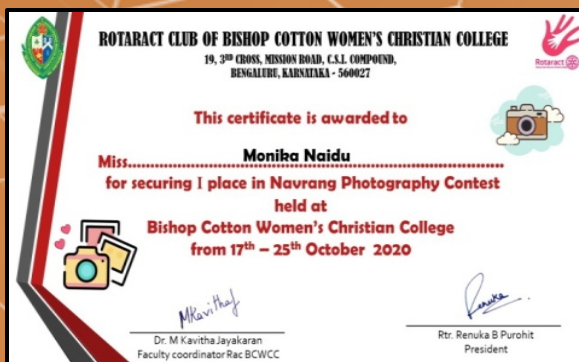
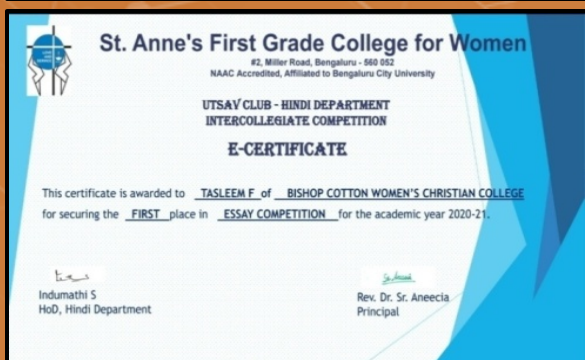


Certificates of Recognition

Digital Poster Making, Photography, Stand-up Comedy, Face Painting, Bible Quiz, Pencil Portrait Sketch Techtalks, Puzzle, Essay Competition, and VISUAL BRAIN TEASERS were among The Intercollegiate Fests in which 2nd and 3rd year BCA students competed and won certificates.

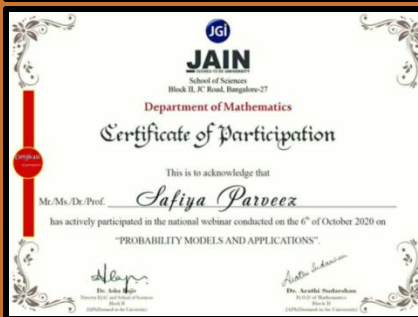
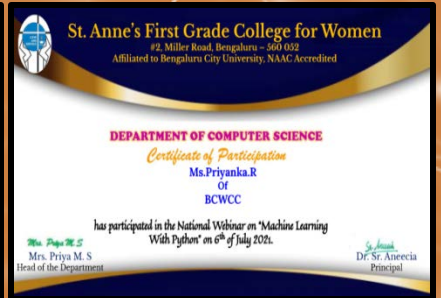
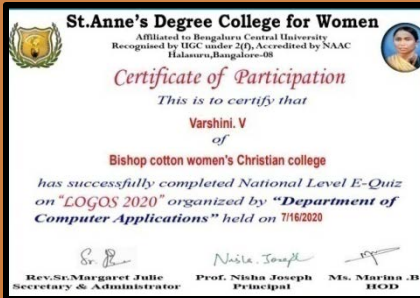


Ms. Esther Jelinal J, a Bishop Cotton Women's Christian College student, took first place in the Bible quiz "The Gospel" on August 26, 2020. And she was rewarded a cash prize of Rs. 500



Certificates of Participation

All students have received Participation certificates for attending the intercollegiate events .



DID YOU KNOW?



- **COMPUTER** is an abbreviation for ‘Computer Operating Machine Particularly Used for Technical, Education and Research’.
- The first computer programmer was a female mathematician – Ada Lovelace
- There are currently over 700 computer languages.
- Hard disks are so sensitive to vibration that just screaming at them diminishes their performance.
- There are approximately 6,000 new computer viruses released every month
- “Space war” is assumed to be the first computer game, developed in 1962.
- **TYPEWRITER** is the longest word that you can write using the letters only on one row of the keyboard of your computer.
- The first 1GB hard disk drive was announced in 1980 which weighed about 550 pounds, and had a price tag of \$40, 000.
- The original name of windows was Interface Manager.
- The first electronic computer ENIAC weighed more than 27 tons and took up 1800 square feet.

Shivani M M
II BSc [CHP]

TOP 5 HIGHEST-PAYING PROGRAMMING LANGUAGES 2021



- **Clojure** : (Average salary(PA):US\$129.887):-is a functional programming language that provides tools to avoid mutable states and leverage functions as first class objects. it emphasizes recursive iteration instead of side –effect based looping.
- **F#** : (Average salary(PA):US\$82,500):-with help of its open source ,cross-platform, and interpretable nature ,F# aids in writing succinct, robust and per formant code. its features ,structures and syntaxes of methods and functions are well suited for everyday business processes.
- **Elixir**:(Average salary(PA):-US\$102,000:-is a dynamic functional programming language designed for building scalable and maintainable applications.Elixir has become one of the most loved languages among software developers.
- **Ruby**:(Average salary(PA):US\$107.381):-is an open-source ,interpreted, object-oriented programming language.
- **GO**:(Average salary(PA):US\$100.157:- is an open-source, statically typed, an complied programing language designed to enhance programming productivity in the era of network machines ,multi-core, and huge code bases.

Bhargavi S
II BCA



CYBER SECURITY

Cyber security can be described as the collective methods, technologies, and processes to help protect the confidentiality, integrity, and availability of computer systems, networks and data, against cyber-attacks or unauthorized access. The main purpose of cyber security is to protect all organizational assets from both external and internal threats as well as disruptions caused due to natural disasters.

What is a cyber-attack ?

A cyber-attack is a deliberate attempt by external or internal threats or attackers to exploit and compromise the confidentiality, integrity and availability of information systems of a target organization or individual(s). Cyber-attackers use illegal methods, tools and approaches to cause damages and disruptions or gain unauthorized access to computers, devices, networks, applications and databases.

Cyber-attacks come in a wide variety and the following list highlights some of important ones that criminals and attackers use to exploit software:

- Malware
- Ransomware
- Injection attacks (e.g., cross-site scripting, SQL injection, command injection)
- Session management and Man-in-the-Middle attacks
- Phishing
- Denial of service
- Privilege escalations
- Unpatched/Vulnerable software
- Remote code execution
- Brute force



Cyber Safety Tips - Protect Yourself Against Cyber Attacks

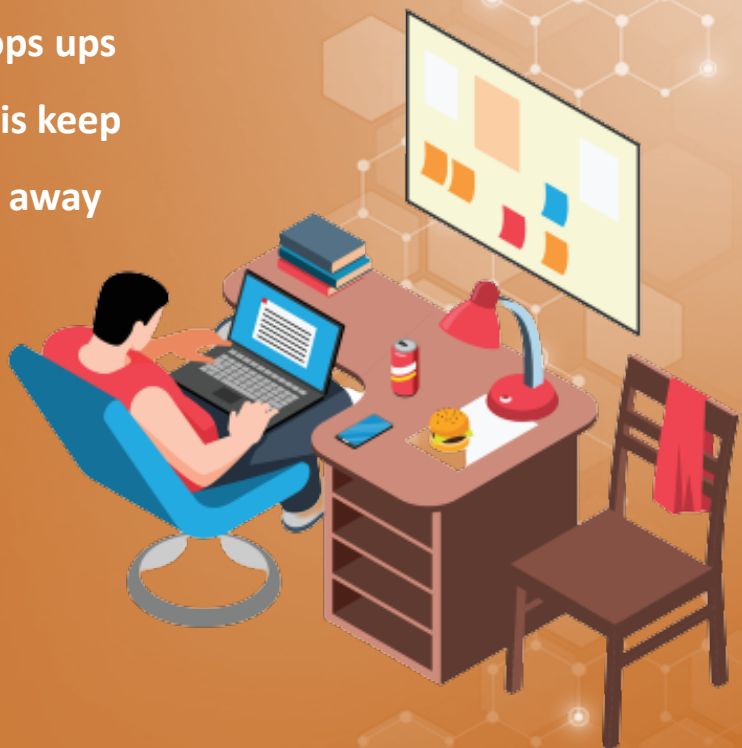
- **Update your software and operating system:** This means you benefit from the latest security patches.
- **Use anti-virus software:** Security solutions like Kaspersky Total Security will detect and removes threats. Keep your software updated for the best level of protection.
- **Use strong passwords:** Ensure your passwords are not easily guessable.
- **Do not open email attachments from unknown senders:** These could be infected with malware.
- **Do not click on links in emails from unknown senders or unfamiliar websites:** This is a common way that malware is spread.
- **Avoid using unsecure WiFi networks in public places:** Unsecure networks leave you vulnerable to man-in-the-middle attacks.

LIKITHA R
III BCA

LIFE IS A COMPUTER

Life is a computer
At time slows
And annoying with
Pops ups black outs
Viruses but also is
Very good with Facebook
MySpace and twitter and you
Can get all your information
You can read a thousand
Books with a click of your mouse
Right at your fingertips
So there are always pops ups
But all you have to do is keep
Going and they will go away
Just remember that
Life is a computer

BHARGAVI.S
I BCA



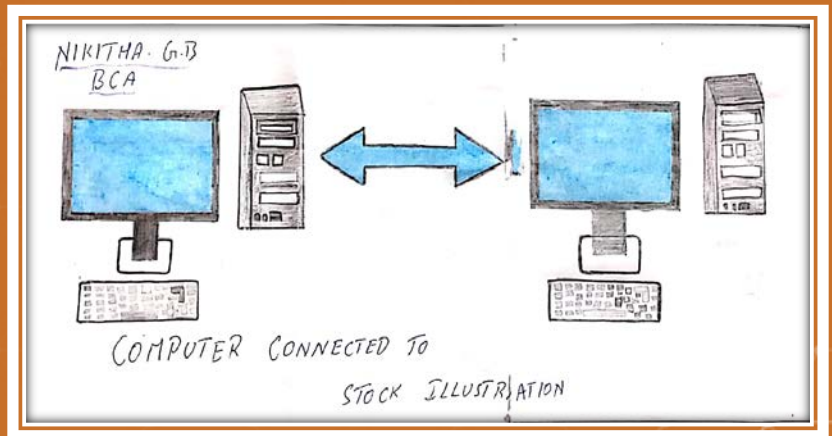
IN OUR WORLD OF TECHNOLOGY...

Computers are magic,
Driving us through logic.
Computers can handle our bank accounts,
and in online shopping can provide us discounts.
Computers can store our Databases,
also providing us platforms to see online faces.
computers can remove corruption,
and can put us in online discussion.
computers won't be hungry,
but can make progress of our country.
I love my computer...
because you can reverse your mistakes,
no matter how long it takes.
we all need a computer friend,
believe it or not that's the FUTURE TREND.



MONIKA K.L
III BCA

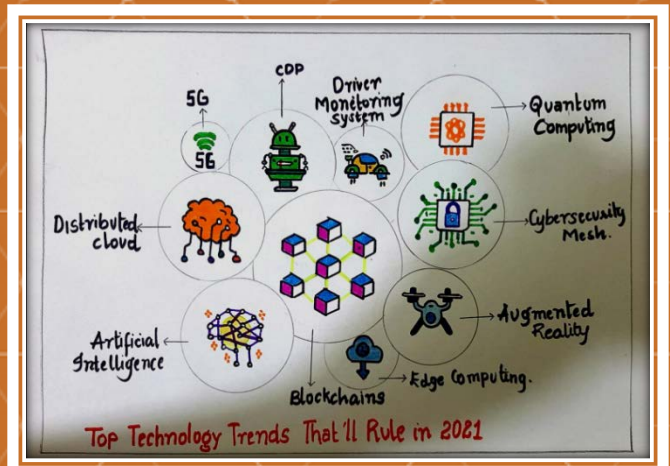
Nikitha GB
I BCA



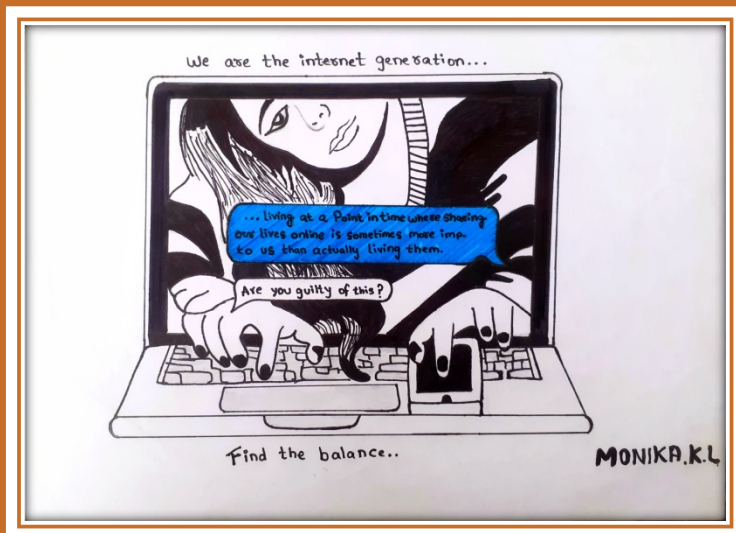
Tejaswini Kumar
II BCA



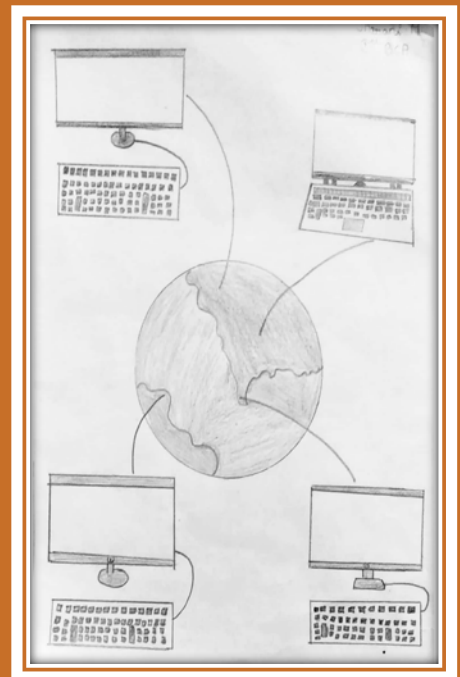
Safiya Parveez
II BCA



Likitha Umashankar
II BCA



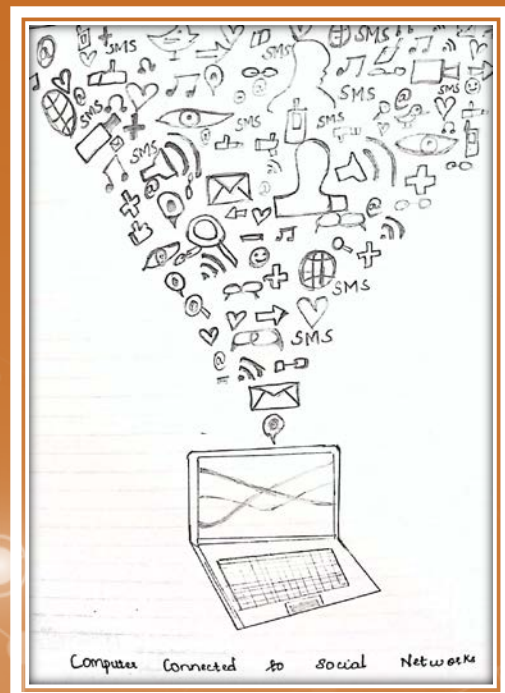
Monika K.L
III BCA



Tharani M
II BCA



Tejaswini Kumar
II BCA



Subarna Mukhi
II BCA

GALLERY







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Student Editor
Monika K.L, III BCA

