XPlore – 2023

VOl – 13

Department of Computer Science and Applications

Auxilium College (Autonomous)

(Accredited by NAAC with A+ Grade with a CGPA of 3.55 out of 4 in the 3rd Cycle)

Gandhi Nagar, Vellore - 632 006.

Website: auxiliumcollege.edu.in

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FROM THE PRINCIPAL'S DESK

Dr. (Sr.) Jaya Santhi R., M.Sc., M.Ed., M.Phil., Ph.D., Principal

The unprecedented lockdown due to Covid-19 pandemic threw out of gear many a sector and one of the most affected is the education sector with uncertainty looming large about the reopening of the institutions. The world today is facing the biggest public health risk, which is leading the different organizations especially the educational institutions to reorganize to face the challenges and to live through the new normal.

I am very happy to say that the Management, staff and students of Auxilium College take pride in bracing themselves to brave the situation to make the most of the time at hand to equip to cope with the challenging times. I appreciate and congratulate our energetic Heads of the Department, staff members both teaching and non-teaching for their committed service during this period of COVID 19.

I wish and pray that all those who enter the portals of Auxilium College may experience the blessings of God and Motherly protection of Mary, the Queen of Auxilium. May God bless and protect you.

Dr. (Sr.) Jaya Santhi R., M.Sc., M.Ed., M.Phil., Ph.D.,
Principal,
Auxilium College (Autonomous), Vellore - 632 006.

EDITOR'S NOTE

"Show me a family of readers, and I will show you the people who move the world."

Napoleon Bonaparte

Department of Computer Science and Applications proudly releases X-plore 2023, a scholarly magazine intended to share with the student community and other readers about the current trends in Computer Science and technology. Without continual growth and progress, success has no meaning. The first release of this magazine was in the year 2009 and now has stepped into the 13th edition. This magazine provides a forum for the faculty and students to update their knowledge in the area of specialization. The magazine also highlights the events that took place in the academic year 2022-2023. The articles submitted by the students showcases recent trends in the field of Information Technology.

Department of Computer Science and Applications extends a hearty thanks to the management for their support and guidance. Special thanks to Ms. R. Nisha Pauline, Ms. M. Anita Madona, Dr. A.L. Shanthi for their valuable suggestions and all those who contributed for the accomplishment of this magazine.

"Today a reader, tomorrow a leader" – Margaret Fuller

Dr. S. Lavanya

Ms. A. Kokila

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About the College

Auxilium College founded in 1954 is the first women's College in the Vellore District and is affiliated to the Thiruvalluvar University. Auxilium has been granted the status of autonomy by the UGC and the Thiruvalluvar University from the academic year 2007-2008. The College has been accredited by National Assessment and Accreditation Council (NAAC) with A+ Grade in 2003, Re-Accredited with A grade with a CGPA of 3.41 out of 4 in 2010 and with NAAC with A+ Grade with a CGPA of 3.55 out of 4 grades in the 3rd Cycle in 2016.

It is a minority institution established and administered by the Daughters of Mary Help of Christians, commonly known as Salesian Sisters of Don Bosco, belonging to the Catholic Church. It is primarily meant for the higher education of deserving Catholics but members of other communities are also admitted without reference to caste or creed and their rights of conscience are respected.

Vision

The vision of the college is to educate young women especially the poorest to become empowered and efficient leaders of integrity for the society.

Mission

To impart higher education to the economically weak, socially backward and needy students of Vellore and neighboring districts.

Goal

The goal of our educative endeavor is to produce in a Salesian atmosphere, intellectually enlightened, spiritually inspired, emotionally balanced, morally upright, socially committed, accomplished – in a word – integrally formed young women who will be agents of social transformation in today's India. True to the vision of its Founders, the College commits itself to serve the economically weak, socially backward and needy students.

The Motto

The Motto of the College is KNOWLEDGE AND VIRTUE. The College Emblem constitutes a book, a lily and a lamp. The book stands for Knowledge and the lily for Virtue. The Lamp with the burning flame is a reminder to Auxilians, to keep the light of Knowledge and Virtue always alive. The hope and prayer of Auxilium is that every Auxilian while attaining Knowledge strives to acquire Virtue so that Knowledge and Virtue blend to make her a perfect model of womanhood. The College has been accredited by NAAC with A+ Grade in 2003, Re-Accredited with A Grade with a CGPA of 3.41 out of 4 in 2010 and accredited with A+ Grade with a CGPA out of 3.55 out of 4 in the third cycle in 2016.

History of the Department

Vision of the Department

The survival and growth of the society shall solely depend upon continuous emergence of knowledge based upon innovations. The pursuit of knowledge alone shall lead the individual, families and nation's prosperity and so vision of the Department is "Excellence in education and commitment to social responsibility.

Programmes Offered

Year of Establishment	BCA – 2001
	B.Sc. – 1991
	M.Sc. – 2000
(Additional Section BCA) Year of Establishment	2009
Duration	UG: 3 Years, PG:2 Years
Pattern	Semester
Session	Un-Aided
Aim of the Course	• To open a channel of admission for computing courses for students, who have done the 10, 2 and are interested in taking computing as a career. • To train the students in basic knowledge in Computer Sciences, particularly in core areas and in developing application programs. • To impart sufficient knowledge and skills for writing general application programs. • To enhance logical and reasoning capabilities of students. • To provide experience of Information Technology scenario.

Certificate Course

Computer has become indispensable in our today's life, we the Department of Computer Science and Applications provide Certificate Course in Computer Science to the students of all departments. In this, we teach MS-Word, MS-Excel, MS-PowerPoint and VB.NET. Internet concepts which include Email creation send/open a mail, attaching files and how to search images, text from search engines like Google, Yahoo, etc. This knowledge helps the student to prepare effective Paper Presentations, Projects, Thesis and many other academic oriented works. Also, this course is mandatory for all the students to complete their degree.

Seminars and Conferences

The Department conducts Conference and Inter-Collegiate competitions regularly for the benefits of the students.

MoU

The Department has an MoU with ICT Academy of Tamil Nadu (ICTACT), an Initiative of Government of Tamil Nadu and Industry, is a not-for-profit autonomous organization focusing to improve the quality of students passing out of institutions in Tamil Nadu, to make them industry ready and immediately employable in the ICT industry comprising the ICT services and the ICT services and the ICT manufacturing sectors. This will meet the skill requirements of the industry and generate more employment in the state especially in tier 2/3 cities.

ICTACT is governed by an autonomous Board of Governors with representations from the State Government of Tamil Nadu, leading companies in the ICT industry with presence in Tamil Nadu and NASSCOM.

Staff List

B.C.A. (SHIFT-II)

NAME	QUALIFICATION	DESIGNATION
Dr. Lavanya S.	M.Sc., M.Phil., SET ., Ph.D.	Assistant Professor & Head i/c.
Dr. Shanthi A.L.	M.Sc., M.Phil., Ph.D.	Assistant Professor
Ms. Susai Mary Susila A.	M.C.A., M.Phil., B.Ed.	Assistant Professor
Ms. Kokila A.	M.C.A., M.Phil.	Assistant Professor
Dr. Tharani S.	M.Sc., M.Phil., Ph.D.	Assistant Professor
Ms. Vijayalakshmi G.	M.C.A.	Assistant Professor
Ms. Sathiya Priya J.	M.Sc., M.Phil.	Assistant Professor

B.C.A. (SHIFT–I)

NAME	QUALIFICATION	DESIGNATION
Ms. Anita Madona M.	M.Sc., M.Phil.,(Ph.D.)	Assistant Professor & Head i/c.
Dr. Kavitha S.	M.C.A., M.Phil., Ph.D.	Assistant Professor
Ms. Sivaranjini N.	M.C.A., M.Phil.,(Ph.D.)	Assistant Professor
Dr. Shobana R.	M.C.A., M.Phil., Ph.D.	Assistant Professor
Ms. Vijayabharathi R.	M.C.A., M.Ed.,	Assistant Professor
Ms. Sindhuja C.	M.C.A., M.Phil.	Assistant Professor

B.Sc. COMPUTER SCIENCE

NAME	QUALIFICATION	DESIGNATION
Ms. Nisha Pauline R.	M.C.A., M.Phil.	Assistant Professor & Head i/c.
Ms. Nirmala Devi N.	M.C.A.,M.Phil.,(Ph.D.)	Assistant Professor
Ms. Janani P.	M.Sc., M.Phil.	Assistant Professor
Ms. Yasmine S.K.A.	M.Sc., M.Phil.	Assistant Professor
Ms. Pushpa Antanet Sheeba G.	M.E., M.B.A.	Assistant Professor
Ms. Yuvarani V.	M.C.A.,M.Phil.	Assistant Professor

STUDENT SECRETARIES

STUDENT NAME	CLASS
Ms. Jayashree S.	II M.Sc. Computer Science
Ms. Swathi P.	III B.C.A. (Shift II)
Ms. Savitha A.	III B.C.A. (Shift I)
Ms. Keerthana M.	III B.Sc. Computer Science

Association Activities

Inauguration

B.C.A. (Shift II)

Inauguration of Association and IT Club of the Computer Applications (Shift II) was held on 25th August 2022 .This program was held at seminar hall, Computer Block. Dr.K.UMA Assistant Professor (Senior) School of Information Technology and Engineering (SITE), VIT University, Vellore as invited as chief guest. The inauguration function started with Prayer song followed by Dr.S.Lavanya, Head, Department of Computer Applications facilitated the chief guest. Dr.K.UMA gave general talk about the placement rounds, she motivated the students on how to face the campus interview and gave reference list to prepare for written test. Our students learned about how to answer to HR in technical as well as personal interview. She explained about the working culture of IT industry. Finally, the program concluded with Vote of thanks followed by College Anthem.

B.C.A. (Shift I)

The Computer Applications Shift I Association and IT Club inauguration took place at Auxilium College, Computer Block Seminar Hall on August 26, 2022. The guest of honour was Dr.Kumaresan Angappan, Assistant Professor from School of Computer Science and Engineering, VIT University, Vellore. Dr. Angappan had an interactive session with our students and spoke on the topic of trending and emerging technologies and how they are poised to transform every aspect of business in the next decade.

B.Sc. Computer Science

The Computer Science Association and IT club of Computer Science Department was inaugurated on August 10, 2022 by Dr.S.Parimala Ranganayaki A., B.E., M.E., Ph.D., Associate Professor from School of Civil Engineering, VIT University. She delivered the inaugural address on "Artificial Intelligence and IOT on Water Management". She also explained how AI in useful in various fields in our day today life.

State Level Inter-Collegiate Competition "IFEST-2022"

Department of Computer Science and Applications (Shift II) conducted a State Level Inter-Collegiate competition **"IFEST-2022" State Level Inter-Collegiate Competition** was held on 30.09.2022 in Auxilium College Auditorium. The Co-ordinators are Dr.S.Lavanya, Head, Assistant Professor, Department of Computer Applications and Ms. Nisha Pauline R, Head, Assistant Professor, Department of Computer Science, Auxilium College (Autonomous), Vellore.

The Events were conducted by the department:

1. Cognizance
2. Model Making
3. Sign of Board
4. Game of Code
5. Marketing
6. Brain Teaser

Students from Various colleges are actively participated in all the events and won prizes. The esteemed resource person for the Inaugural address is Ms. A.S. Charulatha M.Sc., M.Phil., Assistant Professor, Department of Computer Science, Stella Mary's College, Chennai. she proposed keynote address on the topic "Block Chain Technology".

The esteemed resource people for the Valedictory address Ms. Dr. R. Sujatha. M.F.M., M.E., Ph.D., Associate Professor, Department of Software and System Engineering, VIT University, Vellore the technical talk was given on the topic "Artificial Intelligence". Prizes and certificates were distributed by her for the prize winners.

The Overall Championship Trophy was won by Sacred Heart College (Autonomous), Tirupattur. Rev. Sr. Dr. Jaya Santhi, Principal, Auxilium College (Autonomous), Vellore oriented the program for the wellness of students. Through these intercollegiate competitions students learn about the latest innovations and insights. Meet influences and experts, learn team building and also to stay connected friends and peers.

Faculty Development Program on Microsoft Power BI
Data Analyst Associate

The Department of Computer Applications Shift I organized a 40 hours of FDP Programme for 5 days (20.6.2022 to 24.6.2022) in collaboration with ICT Academy, Govt. of India. The Resource Trainee for the FDP was Ms.Valli. E- Senior Technical Trainee, ICT Academy, Govt. of India. The FDP Programme was held in Computer Block Lab with 32 participants from various college like (i) SRM University, Chennai, (ii) VIT University, Vellore (iii) Muthurangam Govt. Arts College, Vellore (iv) K.M.G College of Arts & Science,Gudiyatham (v) Sree Abirami Arts and Science College, Gudiyatham.

Day 1: The Program began with the Prayer Service followed by the Welcome address given by Ms. Anita Madona M, Head department of Computer Applications. Dr. Sr. Amala Valarmathy.A Vice Principal of (Shift II) gave the key note address and felicitated the resource person Ms.Valli.E - Senior Technical Trainee, ICT academy. She motivated the participants to get the certification on Microsoft Power BI. Faculties from our college and other colleges actively participated. Vote of Thanks for the program was given by Ms Sindhuja C, Assistant Professor.

The session started with the installation of software and SQL server Management. The links and manual were shared in Google Classroom. The resource person gave the theory knowledge on power BI.

Day 2: The day was started with Prayer Song. The resource person gave the introduction of Power BI, the way of extracting the data from database, the way to restore. Loading the data to the power BI desktop and transforming the data by changing the column names, inserting, visualizing particular column in form of graphs. Data modelling, dimensions and Hierarchies, Working with schema and tables. Everyday assignments were posted in Google Classroom.

Day 3: The day was started with Prayer Song. The queries regarding the previous session was clarified. The way of handling the data in tables, DAX Queries working were taught. Participants tried the DAX Queries by giving different queries for the table, for particular columns. The examples were shared on how to get the real time data, working with the dashboard. Every participant is assigned with separate User name and Password to make use of the trail session in Microsoft. Each participant was insisted to sign in.

Day 4: The day was started with Prayer Song. Each participant had separate login with Microsoft Power BI and Microsoft account. The tables which were used in desktop has been imported into website so that the changes can be viewed in online under their own Workspace. The report generating were taught and live practice were given along with assignments. The way of working with real time dashboard, streaming the report and enhance the dashboard were practiced.

Day 5: The day was started with Prayer Song. The visualization of the report along with the dashboard. The AI Visualization of the report generated in workspace and way of publishing the report were taught. The resource person gave idea on getting the Certification on Microsoft Power BI. She gave the instructions how to take the test by using reference code for fundamentals, associate exams.

Valedictory function: Principal of our college Dr. Sr. Jaya Shanthi R, was the guest of honour. The Valedictory function started with the prayer service followed by the welcome address by Ms.Anita Madona M, Head department of Computer Applications. The chief guest Dr. Sr. Jaya Santhi R, spoke about how we should update ourselves, by telling the story about eagles life, the way how it renovate the life by cutting their own wings and sharpening their beaks. The same way faculties also to renovate and updating their skills. Participants actively shared the feedback about the 5 days FDP. Feedback were given by the participants and Google link for filling the feedback were shared in Google Classroom.

International Virtual Conference on Applied Data Science and Intelligent Computing

The International virtual Conference was carried out for 2 days (6.1.2023 and 7.1.2023) with collaboration with ICT Academy.

The Day1 (6.1.2023) begin with prayer song followed by prayer. The welcome address was given by Ms. Anita Madona M, Head Department of Computer Application. The felicitation address was given Dr.(Sr) Jaya Shanthi R, Principal of Auxilium College. The Inaugural Address was given by Mr. Karthik Selvarathinam, Project Manager, Investment Bank, London, UK. Sir gave motivational speech to the participants based on his personal life experience. The vote of thanks was given by Ms. Sindhuja C, Assistant Professor, Department of Computer Application.

The Session-I begin with the welcome and introducing the guest speaker by Dr. Kavitha S, Assistant Professor, Department of Computer Application. The guest speaker was Ms. Padma Rajendran, Network Infrastructure Manager, University of Denver, 2100S High st, Denver, Canada. She gave the detail explanation of network security and cyber security, the way to handle the crime via cyber security with real time data's. The vote of thanks was given by Dr. Shobana R, Assistant Professor, Department of Computer Application.

The Afternoon Session was begin with the welcome and introducing of the chair person's Ms. Josephine Sahaya Mala A , Vice Principal, Sacred Heart College(Autonomous), Tirupattur. Dr. Panner Arokiaraj S, Associate professor, Department of Computer Science, Thanthai Periyar Govt. Arts and Science College, Tiruchirappalli. Mr. Anto Sanjay F , Assistant Professor, Department of Computer Science, Faculty of natural and computational science, Gambella University, Ethopia. Dr.Kavitha E, Assistant Professor(SG) Department of Information Technology, University College of Engineering, Villupuram for paper presentation. Participants presented their presentation on their own domain in Computer Science and Application. The session was interactive were the queries was raised by Chair person's and they shared their Knowledge to improve their work. The paper's will be reviewed and publish in ICT Academy in their Group I journal.

The Day2 (7.1.2023) begin with prayer song and prayer. The Session-II begin with the welcome and introducing the guest speaker by Dr. Shobana R, Assistant Professor, Department of Computer Application. The guest speaker Dr. Srinivasa Perumal R, Associate Professor, School of Computer Science and Engineering, Vellore Institute of Technology, Chennai. He shared the knowledge on challenge's in data visualization. Sir, gave the detailed explanation on data visualization. The vote of thanks was given by Ms. Sindhuja C, Assistant Professor, Department of Computer Application.

The Session-III begin with the welcome and introducing the guest speaker by Ms. Sivaranjini N, Assistant Professor, Department of Computer Application. The guest speaker was Mr. Narayanaswamy Kanakasabai, Head of data science, Raven 360, Chennai. Sir, shared the knowledge on recent technologies in AI/MI. He explained on how to handle the real time data's and also he motivated the participant's with his word's " Work hard, Be smart, and practice practice!!. The vote of thanks was given by Ms. Sindhuja C, Assistant Professor, Department of Computer Application.

The Session-IV begin with the welcome and introducing the guest speaker by Ms. Sindhuja C, Assistant Professor, Department of Computer Application. The guest speaker was Dr. Kavitha E, Assistant Professor(SG) Department of Information Technology, University College of Engineering, Villupuram. The guest speaker gave the talk on research area in data science. She shared the knowledge on Data Science.

The keynote address was given by Mr. Santh Meyyur, Vice President Data Engineering, Financial Services firm in USA. The welcome address was given by Ms. Sindhuja C, Assistant Professor, Department of Computer Application. The guest speaker gave the talk on AWS for Machine Learning. He explained about how the amazon is used by machine learning using real time data's. The vote of thanks was given Ms. Anita Madona M, Head Department of Computer Application.

Association Activities

To enhance the logical and reasoning capabilities of students, the Department conducts regular activities like Inter-Collegiate meetings and Department symposium every year.

B.C.A. (Shift II)

Paper Presentation activity was conducted on 26 th September 2022 topic "Recent Technologies in IT". Students from BCA Department participated and improved their presentation skills and knowledge.

Department of Computer Applications (Shift II) organized a **Guest Lecture** on **'Towards the Internet of Things"** on 19th October 2022.The Resource Person was Dr. J. Vinoj, Assistant Professor, Nehru Arts &and Science College, Coimbatore. The event has been started at 10.00 am and totally 100 participants from the Department of BCA and PG Computer Science students as well as faculties were actively participated. The Resource Person was gave a brief description about Challenges, Issues, Layered architecture of IOT and he was elaborated on what is SDDC and its architecture as well as the datacenters and impact on datacenters. He motivated the students by speaking about the Research Directions in IoT and the opportunities that are available in the field of IOT. The event culminated with a Q/A session, where the Speaker cleared the doubts of students. Students were interacted with the resource person and enhance their skills. E- Certificate will be provided for all Participants.

Poster presentation was conducted on 14th November 2022 topics "Green Computing, Cloud Computing, Edge Computing, Machine Learning, Networking, Robotics, and AI Concepts". Many of our students innovatively participated and displayed their poster using their creativity skills.

The event for the association activity on developing an effective **Resume Writing** competition organized on 20th January 2023. Many of our students actively participated in the competition.

Department of Computer Applications (shift II) organized a **Guest Lecture** on **"VOICE RECOGNITION"**, on 4th February 2023. The Co-ordinators of the event is Dr.S.Lavanya, Head, Assistant Professor, Department of Computer Applications and the organizing secretary Ms. Sathyapriya J, Assistant Professor, Department of Computer Application, Auxilium College (Autonomous), Vellore. The Resource Person was Dr. K. Karthika M.C.A., M.phil., Ph.D.,Assistant Professor, Karpagam Academy of Higher Education, Coimbatore. The event has been started at 10.00 am and totally 100 participants from the Department of BCA and PG Computer Science students as well as faculties were actively participated. The Resource Person was gave a brief description about Voice recognition and its Application, Speaker Identification, Challenges and Issues in voice recognition, Controlling devices with Voice, Smart Home voice control devices. She motivated the students by speaking about the Research Directions in voice recognition and the opportunities that are available in the field of voice recognition. The event culminated with a Q/A session, where the Speaker cleared the doubts of students. Students were interacted with the resource person and enhance their skills. E- Certificate has been provided for all Participants.

Prize Winners of Association Activities

S.No	Date	Competition	Conducted by	Award/ Prizes Won	Participants
1.	26.9.2022	Paper presentation	Department of B.C.A.	I	Santhana Lakshmi S. III BCA
				II	Aneesha N. II BCA
				III	Shalini V. I BCA
2.	14.11.2022	Poster Presentation	Department of B.C.A.	I	Shalini D. III BCA Swathi P. III BCA
				II	Mohana Priya P. II BCA Shanmuga Priya V. II BCA
				III	Sharanya R. I BCA Thamizhselvi R. I BCA

3.	20.01.2023	Resume Creation	Department of B.C.A.	I	Kaviyashree G.III BCA
				II	Shanthi G. III BCA
				III	Suganthi M. III BCA

M.Sc. Computer Science

Paper Presentation activity was conducted on 26th September 2022 topic "Recent Technologies in IT". Students from BCA Department participated and improved their presentation skills and knowledge.

PG Department of Computer Science organized a **Guest Lecture** on **'Towards the Internet of Things"** on 19th October 2022.The Resource Person was Dr. J. Vinoj, Assistant Professor, Nehru Arts &and Science College, Coimbatore. The event has been started at 10.00 am and totally 100 participants from the Department of BCA and PG Computer Science students as well as faculties were actively participated. The Resource Person was gave a brief description about Challenges, Issues, Layered architecture of IOT and he was elaborated on what is SDDC and its architecture as well as the datacenters and impact on datacenters. He motivated the students by speaking about the Research Directions in IoT and the opportunities that are available in the field of IOT. The event culminated with a Q/A session, where the Speaker cleared the doubts of students. Students were interacted with the resource person and enhance their skills. E- Certificate will be provided for all Participants.

Web Designing activity was conducted on 25th November 2022 by using "Macromedia Dreamweaver web designing software" for PG Department of computer science students. Many of our students are eagerly participated and designed a interactive web pages.

PG Department of Computer Science organized a **Guest Lecture** on **"VOICE RECOGNITION"**, on 4th February 2023. The Co-ordinators of the event is Dr. S. Lavanya, Head, Assistant Professor, Department of Computer Applications and the organizing secretary Ms. Sathyapriya J, Assistant Professor, Department of Computer Application, Auxilium College (Autonomous), Vellore.

The Resource Person on the day Dr. K. Karthika M.C.A., M.phil., Ph.D., Assistant Professor, Karpagam Academy of Higher Education, Coimbatore. The event has been started at 10.00 am and totally 100 participants from the Department of BCA and PG Computer Science students as well as faculties were actively participated. The Resource Person was gave a brief description about Voice recognition and its Application, Speaker Identification, Challenges and Issues in voice recognition, Controlling devices with Voice, Smart Home voice control devices. She motivated the students by speaking about the Research Directions in voice recognition and the opportunities that are available in the field of voice recognition. The event culminated with a Q/A session, where the Speaker cleared the doubts of students. Students were interacted with the resource person and enhance their skills. E- Certificate has been provided for all Participants.

Prize Winners of Association Activities

S.No	Date	Competition	Conducted by	Award/ Prizes Won	Participants
1.	26.9.2022	Paper presentation	Department of B.C.A.	I	Jayashree S. II M.Sc(CS)
				II	Gayathri II M.Sc(CS)
3.	25.11.2022	Web Designing	Department of B.C.A.	I	Jayashree S. II M.Sc(CS)
				II	Harini V. II M.Sc(CS)

B.C.A. (Shift I)

AdZap competition to train the students to excel in the field of marketing on 22.09.2022. There were 6 teams with the team size of 4 members. The topics for the competition were Smart Watch, Black Water, Smart Pen, Airports and Gaming Laptop.

Logo Design Competition for III years on topic Data Science The motive of this Competition is to make the students to think creatively and design using different tools on their own. The event was conducted on 06.10.2022.

Poster Presentation Competition on topic "Intelligence Devices". The motive of this event is to make the students to know about AI, IOT etc. The event was conducted on 21.10.2022.

Collage Making on topic "Uses of Latest Information Technology" with team size of two. The motive of this event is to make the students to know about uses of IT. The event was conducted on 25.11.2022.

Quiz Competition was conducted**.** The topics were Jumbled Letters, Identify the Personality, Abbreviations. Students actively participated. The event was conducted on 21.02.2023.

Prize Winners of Association Activities

S.No.	Date	Competition	Conducted by	Award/ Prizes Won	Participants
1.	22.09.2022	AdZap	Department of Computer Application	I	**III B.C.A.** Yogeshwari P. Priyadharshini T. **II B.C.A.** Roshini R. **I B.C.A.** Vandhana A S.
				II	**III B.C.A.** Lakshmi Priyadharashini. L C. AmirthaVarshini K. Vaishnavai V. **II B.C.A.** Rithikia A.

2.	6.10.2022	Logo Design	Department of Computer Application	I	**III B.C.A.** Sivaneshwari E.
				II	**III B.C.A.** JeevaVarsha R.
				III	**III B.C.A.** Vaishnavai V.
3.	21.10.2022	Poster Presentation	Department of Computer Application	I	**II B.C.A**. Princy A.
				II	**III B.C.A.** Nivetha V.
				III	**III B.C.A.** Amirtha Varshini K.
4.	25.11.2022	Collage Making	Department of Computer Application	I	**II B.C.A.** Durga Devi V. Kaviya Shri A.
				II	**III B.C.A.** Priyadharshini G. M. Savitha A.
				III	**I B.C.A.** Soniya T. Monisha D.
5.	21.2.2023	Quiz	Department of Computer Application	I	**III B.C.A.** Vijaya Lakshmi R. **II B.C.A.** Roshini S. **I B.C.A.** Alice Vinoliya A.
				II	**III B.C.A.** Jeeva Varsha R. **II B.C.A.**

					Kaviya Shree A. **I B.C.A.** Vishali G.
				II	**III B.C.A.** Lakshmi Priyadharashini. L C. **II B.C.A.** Kiran K. **I B.C.A.** Mary Brijth A.

B.Sc. Computer Science

The association organized events like Poster Presentation, Quiz Competition, Paper Presentation, Resume Preparation, etc. These Events motivates the students and drives them to put forth their best effort. It also sparks interest, passion and ignites a fire within.

Poster Presentation Event was conducted on 17.08.22 in computer block lobby. Students from our department participated actively with their posters. This activity ignited the fire of imagination and creativity in the students.

Quiz Competition was conducted on 12.10.2022 in Room no.22, Computer Block. Our department students participated actively. This activity helped the students to test and improve their knowledge.

Paper Presentation event was conducted on 10.11.2022 in the computer block Seminar Hall. Many students of Computer Science department presented their papers individually. Papers were presented on the topic 'The world of Block Chain', 'ARPANET', 'Li-Fi Technology', 'Online Gambling', 'Quantum Computing'. This event provided the opportunity for the students to learn in detail about the recent technologies and innovations in IT field.

Resume Preparation competition was conducted offline. A good resume will grab the hiring manager's attention. Through this competition students were able to create good resume that made them to get realistic chances of getting selected. Many of our department students actively participated and they learnt to build a perfect resume.

Prize Winners of Association Activities

S.No	Date	Competition	Conducted by	Award/ Prizes Won	Participants
1.	17/08/2022	Poster Presentation	Department of Computer Science	I	Mahek A. II B.Sc. CS
				II	Eswari R. III B.Sc. CS Pooja. H. II B.Sc. CS
				III	Sherin Jebisha Josh J. I B.Sc. CS Tamilselvi R. I B.Sc. CS
2.	12/10/2022	Quiz Competition	Department of Computer Science	I	Dhanalakshmi R. I B.Sc. CS
				II	Mahek A. II B.Sc. CS
				III	Khusboo Solanki C. III B.Sc. CS
3.	10/11/2022	Paper Presentation	Department of Computer Science	I	Sumitha G. III B.Sc. CS
				II	Kothai D. II B.Sc. CS Srivarshini V. II B.Sc. CS
4.	24/01/2023	Resume Preparation	Department of Computer Science	I	Haritha A. I B.Sc. CS
				II	Malini U. II B.Sc. CS
				III	Umamaheshwari K. III B.Sc. CS

IT Club Activities

The IT Club enhances the knowledge of the students in the field of Information Technology. This helps our students to keep abreast of the technological advancements of the world.

B.C.A. (Shift II)

On 25-08-2022 the IT Club Inaugurated by the Chief Guest Dr.Uma.K, Asst. Professor, Senior School of Information Technology and Engineering (SITE),VIT University, Vellore. She gave a general talk about the placement rounds. She motivated the students on how to face the interview and gave some reference list to prepare for written test. She explained about the working culture of IT industry. All the students of BCA participated and learned about how to answer to HR in technical as well as personal interview.

Department of Computer Applications (Shift II) organized a IT club activity "**Group discussion**" on topic "Does education depends on the internet" on 23-09-2022 at 1:15 pm to enhance the knowledge of our students. The event was organized by Asst. Professor Dr.S.Tharani. The Guest of the day was Ms. Kokila.A Asst. Professor Department of Computer Applications (shift II), Many Students from the Department of BCA (shift II) actively participated in the event.

On 28-10-2022 at 1:15 organized "Model making" based on the area of "Smart systems to enhance the knowledge of our students.. The models were very innovative like 3D Hologram, Input and Output Devices, Virtual Reality, Smart Elevators and Firewall networking.

On 24-11-2022 at 1.00 pm organized IT club activity "**Hackathon**" based on the area of "Debugging and finding output of simple programs in C, C++, Java Programing" to enhance the knowledge of our students. All the Students from the III BCA (Shift II) are actively participated in the event.

On 27-01-2023 to enhance the knowledge of our students "**Card Making**" on the topic of "Cerficate Template, Boucher format for College events". The Guest of the day was Ms. Sathiya Priya. J, Asst. Professor, Department of Computer Applications Shift II), Many

Students from the Department of BCA (Shift II) are actively participated in this event and created the colorful certificate formats.

Prize Winners of IT Club

S.No	Date	Competition	Conducted by	Award/ Prizes Won	Participants
1.	23-09-2022	Group Discussion	Department of B.C.A	I	Mahalakshmi K. (III BCA)
				II	Roshini S. (II BCA)
				III	Sneka M. (III BCA)
2.	28-10-2022	Model Making	Department of B.C.A	I	Charumathi R. & Divya S. (I BCA)
				II	Hemalatha A. Mohanapriya.P (II BCA)
				III	Shanmugapriya V. (II BCA)
3.	24-11-2022	Hackathon	Department of B.C.A	I	MahaLakshmi K. (III BCA)
				II	Shanthi G. (III BCA)
				III	AnnaPoorani V. (III BCA)
4.	27-01-2023	Card Making	Department of B.C.A	I	Shalini V. (II BCA)
				II	Sanjana S. (I BCA)
				III	Sharanya R. (I BCA)

B.C.A. (Shift I)

The discussion was held about the activities that can be conducted in the IT Club for this academic year 2022-2023. Based on the discussion the IT Club students were split into 8 groups.

On 23rd September Department of Computer Science and Applications organised a **Guest Lecture on "Big Data"**. Ms. Anita Madona. M, Head In charge and Assistant Professor of Computer Applications, Auxilium College (Autonomous), Vellore served as the resource person and delivered the lecture on **what Big Data is? its benefits, security and how it is implemented in various fields.**

On 12th October IT club (Shift I) conducted a **Media Mirchi competition** on the topic Data Science, Artificial intelligence, Block chain technology and Big data Analytics using Photoshop tool to test their designing and creative skills with the team size of two. 11 teams from II BCA and III BCA participated in the competition.

On 27th October IT club organized **Guest Lecture on "Machine Learning"**. Ms K Vasumathi, Assistant Professor, Department of Computer Science, Government Arts and Science College, Arakonam served as the resource person and delivered the lecture on Machine Learning and its types, steps, applications and how it is implemented in various felids. From BCA (Shift-I) 149 students actively participated in the program and got prizes for the queries raised by the resource person.

On 27th October IT club of BCA (Shift I) conducted a **Debugging Competition** to develop the programming skills on C, C++ and JAVA programming by identifying the bugs and rectifying the errors. 36 students actively participated in the competitions.

On 31st January 2023 IT club conducted a model making competition to excel the innovative ideas in field of **Computer Networks and e-Waste** .The BCA students actively participated and exhibited their models. The judge for the competition was Ms. Anita Madona. M. Head of the Department of Computer Applications (Shift I).

On 27th February 2023 IT Club conducted the paper presentation competition based on the topics are **Wireless Networking, Block Chain Technology, 3D Printing Technology, Aircraft GPs Tracking, How to Tackle Phishing Attack.** The BCA students actively presented the papers. The judge of the event was Ms.Sindhuja Assistant Professor Department Of Computer Applications.

Prize Winners of IT Club

S.No.	Date	Competition	Conducted by	Award/ Prizes Won	Participants
1	12.10.2022	Media Mirchi	Department of Computer Application	I	**II B.C.A.** Kaviya Shree A. Mohanasri D.
				II	**III B.C.A.** Priya R. Vaishnavi V.
2.	27.10.2022	Debugging	Department of Computer Application	I	**II B.C.A.** Boomika S.K.
				II	**III B.C.A.** Sivaneshwari E.
3.	31.01.2023	Model Making	Department of Computer Application	I	**II B.C.A.** Mohanasri D.
				II	**II B.C.A.** Sujie R.
				III	**II B.C.A.** Prasanna S.
4.	27.02.2023	Paper Presentation	Department of Computer Application	I	**II B.C.A.** 1.Kaviya Shri A. 2. Sujie R.

				II	**III B.C.A.** 1.Lakshmi Priyadharshini L.C 2.Srisnekha N.
				III	**III B.C.A.** 1.Priyadharshini G.M. 2.Yogeshwari J.
					I B.C.A. 1.Saron PrathipaP.

B.Sc. Computer Science

After discussing on the activities to be conducted by the IT Club for this academic year 2022-2023, the IT Club students were divided into 6 groups namely Advanced Techwares, Personality Rockers, Innovative Minds, Click online group, Invent Intelligence group, Tech Stars. Every month the News group members collect all the latest news related to IT field.

On 1st September 2022, Personality Rockers group made "**Paper Presentation**" on the topics like Info graphics, Mobile Communication, Artificial Intelligence. The students participated and improved their presentation skills and knowledge.

Video Making was conducted on 10th October 2021, on the topic "**Social Awareness**". The Innovative Minds group members actively participated and presented their videos.

Poster Presentation was conducted on 17th November 2021, on the topics like "Ethical Hacking"," Android Versions". Students participated and displayed their posters using their creative skills.

Model making based on the area of "Smart systems" was conducted on 27th January 2022, it enhanced the knowledge of our students. The models were innovative like 3D Hologram, Input and Output Devices, Virtual Reality, Smart Elevators and Firewall networking.

Prize Winners of IT Club

S.No	Date	Competition	Conducted by	Award/ Prizes Won	Participants
1.	01/09/2022	Paper Presentation	Department of Computer Science	**I**	Ramya M. III B.Sc. CS
				II	Poornagrubagiri R. II B.Sc. CS
				III	Haritha A. I B.Sc. CS
2.	10/10/2022	Video Making	Department of Computer Science	I	Srivarshini L. II B.Sc. CS
				II	Keerthiga G. I B.Sc. CS
				III	Nisha P. III B.Sc. CS Sumithra P. III B.Sc. CS
3.	17/11/2022	Poster Presentation	Department of Computer Science	I	Ramya K. III B.Sc. CS
				II	Pooja H. II B.Sc. CS
4.	27/01/2023	Model Making	Department of Computer Science	I	Ezhilarasi M. I B.Sc. CS Hemasubhasri S. I B.Sc. CS
				II	Yuvasri M. II B.Sc. CS
				III	Sherin Jebisha J. I B.Sc. CS Devadharshini G. I B.Sc. CS

Laurels won by the Students

Activities Outside the Campus

B.C.A. (Shift-II)

S. No.	Date	Name of the College	Event	Participants	Prize won
1.	23/09/22	Space 2022 by Sacred Heart college (Autonomous) Tirupattur	AD-ZAP	**III-BCA** Gopikashree.I Malini.S **II-BCA** Shalini V. Sindhu M. Lonisha J.	I Prize
			Animatronics	**III-BCA** Indhumathi.M	III Prize
2.	14/10/22	National Level webinar by Sacred Heart college (Autonomous) Tirupattur	National Level webinar on Kotlin	**III-BCA** Sabitha.S Swetha.A Rajeshwari.K Malini.S Swetha.R Shanmugi.S	-
				Thanzila.M	
3.	03/02/2023	National Level Workshop by Sacred Heart college (Autonomous) Tirupattur	National Level Workshop on Flutter	**I M.Sc Computer Science** Divya P Kavitha R Lakshmipriya N Nimra Saman H	-

				Prithika P Samreen F Sandhiya R **III BCA** Pavithra R Mahalakshmi K Santhanalakshmi S Logambal V Bala Samyukta R Sandhiya S Nasrin Banu C Shivaranjani R Shanthi G Swathi P Indhumathi M Pavithra R	

B.C.A. (Shift I)

S.No.	Date	Name of the College	Event	Prize	Participants
1.	27.08.2022	National Level Seminar on Classical Cryptography by K.M.G. College of Arts and Science College, Gudiyatham.	Web Design	-	**III B.C.A.** Priyadharshini G. M. Jeeva Varsha R.

			Paper Presentation	-	**II B.C.A.** Sowmiya D. Dharciga B.
			Participated in Seminar		**II B.C.A.** Andriya D. Carolin D. Dharciga B. Faiza Tabasum A. Jaslin Princy A. Lubna SahdhiyaA. Sanofar S. Sowmiya D. Roshini S. **III B.C.A.** Priyadharshini G.M. Jeevavarsha R.
2.	23.09.2022	SPACE 2022 by Sacred Heart Arts and Science College, Tirupattur.	Connexions	First Prize	**III B.C.A.** Keerthana A.
			Media Mirchi	Third Prize	**III B.C.A.** Sivaneshwari E
			Animatronics	-	**III B.C.A.** Jeevavarsha R.
			Clash of codes		**II B.C.A.** Kaviya Shree
3.	23.09.2022	National Workshop on Cloud Sandboxing with	Participated in Workshop	-	**III B.C.A.** Supriya D. Priya R.

		AWS & Cyber Security by Sacred Heart Arts and Science College, Tirupattur.			Vaishnavi V. Priya B.A. Harini G. Jenifer D. Preethi K.S. Kaviya K. Uma Mageshwari T. Mohanapriya P Vijayalakshmi R.
2	14.10.2022	National Workshop on Kotlin by Sacred Heart Arts and Science College, Tirupattur.	Participated in Workshop	-	**III B.C.A.** Vijayalakshmi R. Melinda Xavier Priyadharshini G.M. Sivaneshwari E. Keerthana R. Supriya D. Priya R. Vaishnavi V. Archana S. Jeevavarsha R.

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S. No.	DATE	COLLEGE NAME	EVENT	AWARS / PRIZE-WON	PARTICIPANTS
1	23-9-22	Sacred Hearts College of Arts and Science, Tirupathur	Connections	Fifth	Shanmathi M.P. III B.Sc.
2	23-9-22	Sacred Hearts College of Arts and Science, Tirupathur	Clash of Codes	Fourth	Sumitha G. III B.Sc.
3	24-9-22	Startup Fair – VIT University, Vellore	Commercial Fair for students	Participation	23 students from III B.Sc.
4	14-10-22	Sacred Hearts College of Arts and Science, Tirupathur	National level workshop on Kotlin	Participation	Sindhu R. Shivaranjani S. III B.Sc.
5	22-10-22	Shakespeare Publications	Essay writing competition	State Second Rank	Ms.Sajeetha V. I B.Sc.

6	22-10-22	Shakespeare Publications	Essay writing competition	Second Rank	Gowthami I B.Sc.
7	2-2-23	Thiruvalluvar University, Serkadu	National workshop on The dynamics of Augmented Reality and Virtual Reality	Participation	23 students from III B.Sc.
8	3-2-23	Sacred Hearts College of Arts and Science, Tirupathur	National Level Workshop on Flutter.	Participation	23 students from III B.Sc.

Sports

In the Intramural events and other sports events were conducted during this academic year, students from the Department of Computer Science and Applications won the following prizes:

B.C.A. (SHIFT II)

INTRAMURALS

Athletic Winner:

Chithra.G ,1500meters Running(first place) – III B.C.A

Kaviya.S , 1500meters Running (first place) – II B.C.A

Nethiya.P ,800meters Running(second place) – II B.C.A

Premalatha.V 3000meters Running(first place) – II B.C.A

Kaviya.S 100meter Running (first place) – II B.C.A

Athletic Participants:

Gayathri.S , 100meter Running – II B.C.A

Asha Daris Y.E, 3000meters Running – III B.C.A

400meter Relay (Second Place)

Lonisha.J – II B.C.A

Gayathri.S – II B.C.A

Kaviya.S – II B.C.A

Premalatha.V – II B.C.A

100meter Relay (Second Place)

Kaviya.S – II B.C.A

Gayathri.S – II B.C.A

Kho-Kho Match:

Chithra.G – III B.C.A

Asha Daris.Y.E – III B.C.A

Foot Ball Match:

Premalatha.V – II B.C.A

Asha Daris.Y.E – II B.C.A

Hand Ball Match:

Premalatha.V – II B.C.A

Basket Ball:(Winners)

Gayathri.S – II B.C.A

kaviya.S – II B.C.A

Sindhu.M – II B.C.A

Lonisha.J – II B.C.A

Nethiya.P – II B.C.A

Kabadi Match:(Runners)

Nethiya.p – II B.C.A

Ramyalakshmi.S – II B.C.A

Javenile Throw:

Prathipa.R (Third Place) – II B.C.A

Disc Throw:

Kaviya.S(First Place) – II B.C.A

Throw Ball Match:(Winners)

Prathipa.R – II B.C.A

Shalini.V – II B.C.A

Ramyalakshmi.S – II B.C.A

Kaviya.S – II B.C.A

Lonisha.J – II B.C.A

Premalatha.V – II B.C.A

Gayathri.S – II B.C.A

Badminton Match:(Winners)

Gayathri.S – II B.C.A

Kaviya.S – II B.C.A

Inter Athlete South Zone, University

Chithra.G – II B.C.A

Inter Divisional Athlete:

Premalatha.V – II B.C.A

Asha Daris.Y.E – III B.C.A

Inter Divisional Kho-Kho Match:

Asha Daris.Y.E – III B.C.A

University Kho-Kho Match:

Chithra.G – II B.C.A

Inter Divisional Foot Ball Match:

Premalatha.V – II B.C.A

Asha Daris.Y.E – III B.C.A

University Basket Ball Match:

Gayathri.S – II B.C.A

Kaviya.S – II B.C.A

Inter Collegiate Kabadi Match:

Nethiya. P – II B.C.A

Ramyalakshmi.S – II B.C.A

Karigiri Marathon (5Km):

Premalatha.V(Second Place) – II B.C.A

B.C.A. (SHIFT I)

INTRAMURALS

Athletic Events Winners

100 Meters Athletic Participant

1. Hanci L. I B.C.A.
2. Monisha R . I B.C.A.

200 Meters Athletic Participant

1. Hanci L. I B.C.A.
2. Nivetha V. III B.C.A.

400 Meters Athletic Participant

1. Jenifer D. III B.C.A.
2. Monisha R. I B.C.A.

800 Meters Athletic

1. Vandhanaa A. S. I B.C.A. – Second Prize
2. Toni Paphisha V. I B.C.A. – Participant

1500 Meters Athletic Participant

1. Elizabeth Rani A. I B.C.A.
2. Mary Brijith A. I B.C.A.

4 x 100 Meters Relay Participant

1. Amali P. III B.C.A.
2. Hanci L. I B.C.A.
3. Monisha R. I B.C.A.
4. Toni Paphisha V. I B.C.A.

4 x 400 Meters Relay Participant

1. Amali P. III B.C.A.
2. Nivetha V. III B.C.A.
3. Monisha R. I B.C.A.
4. Toni Paphisha V. I B.C.A.

Long Jump Match Participant

1. Amali P. III B.C.A.
2. Lakshmi Priyadharshini L. C. III B.C.A.

Triple Jump Match Participant

1. Vandhanaa A. S. I B.C.A.
2. Lakshmi Priyadharshini L. C. III B.C.A.

Shot-put Match

1. Vandhanaa A. S. I B.C.A. – Second Prize
2. Jeevavarsha R. III B.C.A. – Participant

Discuss Throw Match Participant

1. Jeevavarsha R. III B.C.A.
2. Lakshmi Priyadharshini L. C. III B.C.A.

Javelin Throw Match Participant

1. Jeevavarsha R. III B.C.A.
2. Lakshmi Priyadharshini L. C. III B.C.A.

Badminton Match Participant

1. Vandhanaa A. S. I B.C.A.
2. Jeba Amalia S.T. I B.C.A.

Hand Ball Match Participant

1. Lakshmi Priyadharshini L. C. III B.C.A.
2. Yogeshwari J. III B.C.A.
3. Amali P. III B.C.A.
4. Savitha A. III B.C.A.
5. Hemalatha S. III B.C.A.
6. Sneha S. II B.C.A.
7. Varalakshmi R. II B.C.A.

INTERCOLLEGIATE COMPETITION, HOLY CROSS ARTS AND SCIENCE COLLEGE, TIRUPATTUR

Hand Ball Match Participant

1. Lakshmi Priyadharshini L. C. III B.C.A.

SHUTTLE COMPETITION, ROTRACT CLUB

1. Vandhanaa A. S. I B.C.A. – Participant
2. Jeba Amalia S.T. I B.C.A. – Second Prize
3. Mary Brijith A. I B.C.A. – Participant

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Inter Collegiate& Inter Divisional

Throw Ball Match- Participation

Narmadha E. III B.Sc. CS

Priyadharshini A. III B.Sc. CS

Nandhini V. III B.Sc. CS

Keerthika R. III B.Sc. CS

Eshwari R. III B.Sc. CS

Haricasri J.III B.Sc. CS

Gopika C. I B.Sc. CS

Selvakumari A. I B.Sc. CS

Priyadharshini R. I B.Sc. CS

Sulochana S. I B.Sc. CS

Dharshini V. II B.Sc. CS

Shot put Match-Participation

Narmadha E. III B.Sc. CS

Haritha A.A. I B.Sc. CS

Discuss Throw Match- Participation

Narmadha E. III B.Sc. CS

Keerthika R. III B.Sc. CS

Long Jump Match- Participation

Eshwari R. III B.Sc. CS

UmaMaheswari K. III B.Sc. CS

Triple Jump Match- Participation

Keerthika R. III B.Sc. CS

Eshwari R. III B.Sc. CS

Shuttle Match- Participation

Narmadha E. III B.Sc. CS

Devika M. I B.Sc. CS

High Jump Match- Participation

Umamaheswari K. III B.Sc. CS

Kabbadi Match- Participation

Narmadha E. III B.Sc. CS

Keerthika R. III B.Sc. CS

Eshwari R. III B.Sc. CS

Dharshini V. II B.Sc. CS

Sowmiya B. II B.Sc. CS

Keerthana G. II B.Sc. CS

Umamaheswari K. III B.Sc. CS

INTER COLLEGIATE- ZONAL

Shot Put Match – Winner

Narmadha E. III B.Sc. CS

Discuss Throw Match Winner

Narmadha E. III B.Sc. CS

Long Jump Match Winner

Eshwari R. III B.Sc. CS

Triple Jump Match Winner

Keerthika R. III B.Sc. CS

Extra-Curricular Activities

B.C.A. (SHIFT II)

Department of English Conducted various competitions like Dramatics and Portrayal. The Students of Computer Applications Participated very actively. They participated in "Muthamizh Vizha" conducted by the Department of Tamil and took various competitions like Dance, Speech Competition, Essay Writing and Dramatics. BCA (Shift II) students won Ist Prize in Dance Competition and IIIrd Prize in Speech Competition.

Students III BCA (Shift II) took part in "Vellore Sepoy Mutiny Day" in Vellore Fort Organized by NSS Unit, Auxilium College (Autonomous), Vellore on 10-07-2022. Students from III BCA Volunteered for the Wall painting event at Female Prison Organized by NSS Unit, Auxilium College (Autonomous), Vellore. On 09-08-2022. Students from III BCA Volunteered for the" Independence Day Rally and Cleaning" Organized by NSS Unit, Auxilium College (Autonomous), Vellore on 12-08-2022. Students from III BCA Volunteered for the Wall painting event at Female Prison Organized by NSS Unit, Auxilium College (Autonomous), Vellore. On 14-08-2022. Students from BCA (Shift -II) actively participated in the Elocution Competition for School and College Students on the Ocassion of 150th Birth Anniversary of V. O. Chidambaram Pillai Organized by NSS Unit, Auxilium College (Autonomous), Vellore on 18-08-2022. Students from I-BCA actively participated in the "Organic Food Festival" Organized by NSS Club at the Auditorium, Auxilium College (Autonomous), Vellore. On 15-11-2022.

NCC Cadets from BCA (Shift II) actively participated in the NCC Parade at 75th Independence Day Celebration, Auxilium College (Autonomous) on 15-08-2022. Students from BCA (Shift II) actively participated in Unity Run on National Unity Day conducted by Department of NCC Auxilium College (Autonomous) Vellore on 30/10/22.

B.C.A. (SHIFT I)

The students from the Department of Computer Science and Applications took active participation in Extra – Curricular and Cultural Activities for the Academic year 2022 – 2023.

The Department of Tamil conducted "Muthamizh Vizha" in the college premises. Various competitions were conducted for the students. The Department of Computer Applications (Shift I) participated in Essay, Poetry, Dance, Singing, Dramatic competition. Ashwini S of II B.C.A. got Third price in Essay competition. Hindi Patriotic Singing Competition was organized by the Department of Hindi, on the topic Patriotism. The following students from Department of Computer Applications (Shift I) participated in the competition. Inter Department Dramatics was organized by the Department of English, on the topic "William Shakespeare's Comedy A Midsummer Night's Dream on the theme Nature and Fantasy" Department of Computer Applications (Shift I) participated.

The NCC Cadets from the Department of Computer Applications (Shift I) attended Chess Olympiad, in Vellore Fort on 27th of July 2022. The NCC Cadets participated in the Independence Day Patriotic Parade and formed 75 in the ground using the flag. On Centenary Celebration NCC cadets of Computer Applications (Shift I) welcomed the Guest of Honour with pilating followed by the slow march. NCC Cadets from the Department Computer Applications (Shift I) participated in the UNITY RUN From Kalyana Mandapam to Auxilium College organized by Auxilium College in association with Ministry of Culture. Rock Climbing Camp (RCTC All over India) held at Gwalior Department Computer Applications (Shift I) NCC Cadet Harini G. III B.C.A. participated got batch and certificate. On Sports Day NCC cadets from Department Computer Applications (Shift I) participated in patriotic parade. Combined Annual Training Camp held at Avadi, Chennai Department Computer Applications (Shift I) NCC Cadets received first prize in cultural. On Republic Day patriotic Parade and Drill Competition was conducted NCC Cadets from the Department of Computer Applications (Shift I) participated and received second prize.

National Service Scheme (NSS) conducted SWATCH BHARATH at Palar river and Park Cleaning, NSS students the Department Computer Applications (Shift I) from the Department of Computer Applications (Shift I) participated.

CSIR Programme was organized by the Department of Computer Science and Applications. 50 Students were attended the Programme and learn their knowledge skills. The amount of Rs. 25000-/- were sanctioned by this Programme.

Mega Seed Ball Distribution was organized by the Department of Communication Media along with the Department of Computer Applications in 17.09.2022 drive on the theme "Go Green to get India Clean at Palamathi Hills. It was an initiative program inspired by the Government of India theme Swachhta Pakhwada which denotes Support Green India for Environmentally Clean India at the extension of this program, presented 20,000 seed balls distribution to support the Green India theme. This program was inaugurated by our distinguished Mayor of Vellore city Municipal Corporation Ms.Sujatha Anadakumar, who graced the occasion with motivating words. Mr.Dinesh Saranvanan is a Social activist who is known for his social outreach program and promoting various activities and initiatives in the green Vellore project part of it, he has sponsored 20,000 seed balls and also encouraged and motivated the students to actively participate in the green Vellore program by practicing tree plantation to keep our surrounding clean. The principal of our Auxilium College, Dr. Sr. Jayasanthi gave the keynote address about tree planting and the importance of a green environment. The students from Department of Computer Application (Shift I) had a great learning experience and enjoyed the environmental protection activities by giving their full support during the program.

B.Sc. Computer Science

In Muthamizh Vizha Intercollegiate competitions conducted by the Department of Tamil on 23-9-22, the Best Actress Prize was bagged by Pooja H. of II B.Sc. Computer Science in dramatics for the character Nandini from the Tamil epic Poniyin Selvan play and also Mithila J. of III B.Sc. Computer Science got Third Prize in Tamil Essay Writing Competition.

Sumitha G. of final year Computer Science Department bagged the fourth prize in the event "Clash of Codes" and Shanmathi M. P. of III B.Sc. Computer Science bagged the fifth place in the event "Connections" conducted at Sacred Heart College inter-collegiate competition.

In the 12th annual celebration event of Indian Red Cross Society, KAVIYA M. of III B.Sc. Computer Science was appreciated and awarded for her best service in Indian red cross society for the academic year 2021-22.

Sajeetha V. of I B.Sc. Computer Science bagged the Second Rank in State level and Gowthami of I B.Sc. Computer Science secured the Second Rank in the "Shakespeare's Talent Examinations" conducted by Shakespeare Publications.

A Sudoku Competition was conducted by the PG Department of Mathematics from 30-1-23 to 3-2-23, in which II year student Poornagrubagari R. of Computer Science department won the First Prize.

The English Literary Association Shift II conducted Interdepartmental Dramatics Competition on 6-2-23 on the theme Nature and Fantasy, in which Computer Science department students participated and won the Second Prize for the Shakespeare's play, "As You Like It".

Sumitha G. of III B.Sc. Computer Science bagged the First place in the Young Innovators Day conducted by the Committee for Research Ethics, Publication and IPR in collaboration with Tamil Nadu Science Forum (TNSF), Auxilium College Branch on 28-2-23.

Academic Results

The Results achieved by Postgraduate and Undergraduate Students from Computer Science and Applications Departments are:

M.Sc. Computer Science - 100%

B.C.A. (Shift II) - 98%

B.Sc. Computer Science - 96%

DEPARTMENT TOPPERS

Deshitha S.
M.Sc. Computer Science

Nimra Saman H.
B.C.A (Shift II)

Arthi V.
B.Sc. Computer Science

Students Placed in Campus Interview

Students from the Department of Computer Science and Applications were selected in the Campus Interview conducted by various National and Multinational companies. The list of students placed is as below:

B.C.A. (SHIFT II)

First Source Solution Limited

Sona S. – III B.C.A

Nafter Web Technologies

Mehdi Begum B. – III B.C.A

Ayesha Siddika M. – III B.C.A

Cognizant Technology Solutions

Shalini P. – III B.C.A

Tata Consultancy Services

Radhika R. – III B.C.A

Haritha B. – III B.C.A

Pavithra G. – III B.C.A

Jeevitha D. – III B.C.A

Archana Devi V. – III B.C.A

Kriya IT Pvt. Ltd.

Keziya Prabhu C. – III B.C.A

Sobhitha K. – III B.C.A

AGS Health Care Pvt. Ltd.

Sandhiya A.S. – III B.C.A

B.C.A. (SHIFT I)

Students from the Department of Computer Applications were selected in the Campus Interviews conducted by various National and Multinational Companies. The List of students placed is as below:

Scyo Decision Services Pvt. Ltd.

1. Dhanusri P. B.C.A.
2. Sree Harishini S. B.C.A.

Stellar Innovations Pvt.

1. Keerthiga K. B.C.A.

Intern, Global Healthcare Solution

1. Kiruthiga S. B.C.A.

Nokia Solutions & Networks India Pvt. Ltd.

1. Sandhiya G. B.C.A.
2. Shalini R. B.C.A.

Admission Counselor, Edureka Learning Center

1. Snekha R. B.C.A. B.C.A.

B.Sc. Computer Science

Students from the department of Computer science were selected in the campus Interviews conducted by various National and Multinational Companies. The list of Students placed is as below:

TATA CONSULTANCY SERVICES (TCS)

1. Thamizharasi D. - B.Sc. Computer Science
2. Sivashakthi B. - B.Sc. Computer Science

Omega Healthcare

1. Sabari Priyadharshini M. - B.Sc. Computer Science

Kriya IT Private Limited

1. Aarthi V. - B.Sc. Computer Science
2. Maheswari K. - B.Sc. Computer Science
3. Mohanapriya T. - B.Sc. Computer Science
4. Ramya B. - B.Sc. Computer Science

AGS Health Care

1. Nivetha V.D. - B.Sc. Computer Science

Emergency MANET Multicasting Scenarios

Generally Ad hoc networks are decentralized network each node communicates with each other through intermediate nodes. When the network size is extensive it's unmanageable to routing and manages. Suppose the network is unfixed networks means the topology many change frequently. New protocol as counter weight and region based is the solution proposed here for the communicating failure while nodes are fast moving.

The idea creating clusters and backbone for connecting cluster heads is the idea of making routing involved with least amount of nodes Application of lagging scenario is meetings, political conferences, events, live matches etc.,. For this scenario small or medium size of network is enough, because the area of this networks with ground, stadium or Hall anything else. For these application we can able to decide the size of network, number of nodes, communication technology, use of antenna, node stability, amount of energy, life time of the network at least somewhat.

The applications of rapid scenario are Army Battle fields, Disaster relief operations, search and rescue operations etc., for this scenario medium or some big size network needed. For these application we cannot able to decide the size of network, number of nodes, amount of energy, life time of the network but which communication technology, use of antenna, node stability can able to decide.

Region Based Clustering Algorithm

The techniques are available for calculating coordinates and signal strength. Each node knows its own location information from the (x, y) and the current transmission range. Set the rectangle area for entire node and sub part the rectangle. Coordinates of the rectangle is (0, 0) and the end is (x,y),So the centre point of the rectangle (x/2,y/2).Each partition are equal size clusters then one node will select as Cluster head.

Set Spt(0,0);

Set Ept(x,y);

Set Cpt(x/2, y/2);

Set NID (ID, (x_i ,y_i),partition ID)

Set Length=L;

PID= (x_i /L)+(y_i /L)(x/L);

Set Tr and B_P

Select HN based on high energy and high transmission range values

in each partition

$$HN = \max_{i \in k}(E) \bigcup \max_{i \in k}(R) \qquad HN \subseteq C$$

$$\left| C_i \overset{\cup}{\in} \overset{C_i}{HN} \right|$$

Else if

Node receives hello message from two HN's

Select as GN;

Else

Select as MN;

End If

Routing

Step 1**:** If S wants to transmit the data establish Rrq to its neighbour

Step 2: If D is within transmission range send Rrp to S ,communication begins.

Step 3: If D is not within transmission range the neighborhood node will check heterogeneity based geographical values.

Calculate the Euclidean distance between two nodes

Identify shortest path

Establish the path, communication begins.

1) ***Intra-cluster routing:*** Sender and receiver will directly communicate within same cluster.

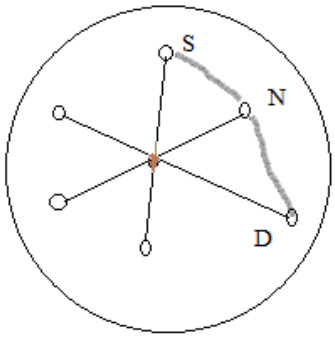


fig: 1.1 Intra cluster routing(1- Hop)

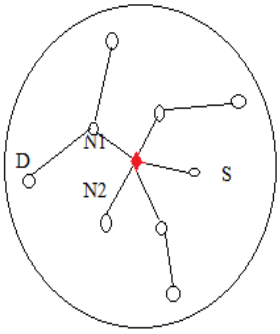


Fig1.2 intra cluster(2-hop)

Algorithm for Intra cluster routing (1- Hop)

Calculate the Dt by $S(x_1, y1)$,$D(x_2,y_2)$ -Source and destination coordination Calculate the Dt by

$$Dt = \left|\sqrt{(x_2 - x_1)^2 - (y_2 - y_1)^2}\right|$$

If (Dt > D (Tr))

Find the immediate 1 hop neighbour (N) in the cluster

If find N

Forward the communication packets to N

Then

N will forward to D

Else

S directly forward to D

For lagging scenario the counter weight based clustering algorithm is implemented the nodes are slowly moved on may not move. Here communication achieves through intermediate node, In NS2 implementation this algorithm achieves 100% Packet delivery ratio and throughput. For rapid movement scenario the region based Clustering algorithm is implemented here the node are move fast. While network size increases routing achieves through coordinate position. In Ns2 implementation with 5 clusters and 30 node results 97% packet delivery ratio and achieving scalability Ns2 implemented with 6 clusters with 42 nodes results 78%.

Conclusion

Since network size increases the packet delivery ratio has been reduced. So, reducing network size by improving cluster size but drawback is adding more number nodes in cluster routing will delay by searching destination so through is reduce. So balancing cluster is important by fixing limitation can achieves throughput and PDR.

Dr. S.Tharani
Assistant Professor
Department of BCA (Shift-II)

Arduino Smart Vacuum Cleaner Robot for Automatic Floor Cleaning

In a present-day scenario, we all are so busy with our work that we don't have the time for cleaning our house properly. The solution to the problem is very simple, you just need to buy a domestic vacuum cleaner robot such as **irobot roomba** which will clean your house with the press of a button. But such commercial products share one common issue, which is cost. So today, we decided to make a simple **Floor cleaner robot,** which is not only simple to make but costs very less compared to commercial products available in the market. Frequent readers might remember which we built a long time ago, but that one was very bulky and needed a big lead-acid battery to move around. The new **Arduino Vacuum Cleaner** we are going to build here will be compact and more practical. On top of that, this robot will have ultrasonic sensors and an IR proximity sensor. The ultrasonic sensor will allow the robot to avoid obstacles so that it can move freely until the room is properly cleaned, and the proximity sensor will help it to avoid falling from stairs.

Materials Required to Build Arduino Based Floor Cleaning Robot

As we have used very generic components to build the hardware section of the **vacuum cleaner robot**, you should be able to find all of those in your local hobby store. Here is the complete list of required material along with the image of all the components.

- Arduino Pro Mini - 1
- HC-SR04 Ultrasonic Module - 3
- L293D Motor Driver - 1
- 5Volt N20 Motors and Mounting Brackets - 2
- N20 Motor Wheels - 2
- Switch - 1
- LM7805 Voltage Regulator - 1
- 7.4V Lithium-Ion Battery - 1
- IR Module - 1
- Perfboard - 1
- Castor Wheel - 1
- MDF
- Generic Portable Vacuum Cleaner

Portable Vacuum Cleaner

In the component requirement section, we have talked about a **portable vacuum cleaner;** the images below show exactly that. It is a portable vacuum cleaner from amazon. This comes with a very simple mechanism. It has three parts in the bottom (a small chamber for storing the dust, the middle portion includes the motor, fan, and the battery socket on the top (there is a cover or cap for the battery). It has a DC motor and a fan. This motor is directly connected to 3V (2*1.5volt AA batteries) via a simple switch. As we are powering our robot with a 7.4V battery, we will cut the connection from the internal battery and power it from the 5V power supply.

Pros and Cons of Using a Robot Vacuum

Scheduled cleaning – It's nice to be able to just program the vacuum to run on select days, or at a specific time each day, so that the floor is generally clean without any human interaction.

Vacuum under furniture and tough-to-reach spots – When I vacuum the house the old-fashioned way, I generally go around the sofa, bed, and other large furniture. Robot vacuums can just zip right under there and take care of business so you don't have an accumulation of dust bunnies.

Spot cleaning – Many of the robot vacuums include a mode you can use if there is a spill or mess in one particular area. Rather than scouring the entire house, the spot cleaning mode will just focus on the area you direct it to.

Double-duty as a mop – One thing that's worse than vacuuming is mopping. Some robot vacuums can also operate as automated robot mops. My experience with the mopping capabilities has been less-than-stellar, but it's better than nothing at all.

Cons

Vacuum-proof the house – Things like socks, pet toys, or other small objects can get stuck in the robot vacuum just as they would in a traditional vacuum. The difference is that you're not there to pick it up on the fly or go around it, so you need to keep the house more or less vacuum-proofed before the vacuum runs.

Device gets stuck – There seems to be somewhat of a standard when it comes to the size and shape of robot vacuums. Some are taller than others, though, and a difference of even a quarter inch can make or break whether the robot vacuum will just bounce off the cabinet in the corner, or get wedged under it and get stuck.

Device can't find its way home – When the battery starts to run out of juice the vacuum is supposed to return automatically to its charging base. It works fine most of the time, but I often find a rogue robot vacuum stranded in the middle of the house because it couldn't find it's way home. Some models have a much bigger problem with this than others.

Empty frequently – In order to get around tight spaces and not drain the battery too quickly the robot vacuums are also generally small—especially the bin that collects the dirt and debris. It's worse in my home than for most because of the extreme number of pets shedding fur all over the place. Regardless, though, the bin in a robot vacuum is significantly smaller than most traditional vacuums and will need to be emptied more frequently.

You still need to vacuum – The robot vacuum is great at automated, general cleanliness, but there are still nooks and corners it just won't be able to get to. Owning a robot vacuum will significantly reduce the need to vacuum, but you will still need to vacuum the old-fashioned way periodically, so you can't just replace or throw away your old vacuum.

Noise – The robot vacuums are not any louder than a traditional vacuum, but they're slower and tend to run much longer. It would take me about 30 minutes to vacuum the entire downstairs of my home with an upright vacuum. The robot vacuums generally take 90 minutes or more. That's 90 minutes of vacuum white noise polluting the house.

Cost – This is really the biggest con in my mind. Robot vacuums start in the $250 range for some of the Deebot models, and go up to near $1,000 for the latest Roomba or Samsung robot vacuums. The Dyson 360 Eye is expected to cost more than $1,000. On the low end, it isn't significantly more than an average traditional vacuum, but it's still extravagant when you consider that you still also need to keep that old vacuum around as well.

Ms. Sathiyapriya J.
Assistant Proferssor,
Department of B.C.A (Shift – II)

Blue Eyes Technology

The blue eyes technology works on Artificial Intelligence. It aims to give human abilities to a computer. A research team of IBM has come up with this technology to make a computer understand and sense human feelings and behavior. The aim of the blue eyes technology is to give human power or abilities to a computer so that the machine can naturally interact with human beings as humans interact with each other, through speech, facial expressions and touch.

All human beings have some perceptual capabilities, the ability to understand each other's emotional level or feelings from their facial expressions. Blue eyes technology aims at creating a computer that has the abilities to understand the perceptual powers of the human being by recognizing their facial expressions and react accordingly to them. All these perceptual capabilities are embedded in the gadgets using the Blue Eyes Technology. This shows how far science and technology can progress and develop.

The Blue eyes technology identifies human emotions using image processing techniques by extracting eye portion from the captured image and compares it with the stored images in the database. This high-end technology facilitates the computers to talk, listen and feel our presence with various tools of artificial intelligence like face recognition, fingerprint, and video calls etc.,

This technology is used to simplify life by providing user-friendly facilities. It also helps in reducing the gap between the computer and human.

G.Gokulalakshmi
II M.Sc. Computer Science

Strata Flash Memory

Strata Flash is a NOR Flash Memory technology first developed by Intel. It stores two or more bits of information per cell rather than just one in an architecture called Multilevel Cell (MLC). This is accomplished by storing intermediate voltage levels instead of using only the two levels (discharged = "0" and charged = "1") of traditional binary memories. The Strata Flash technology evolved out of Intel's ETOX flash memory products. Two bits per cell are achieved with four levels of voltage, while three bits per cell can be achieved with eight levels.

Research of this technology began in 1992 and the first commercial products were released in 1997. Further developments allowed faster read speeds by offering synchronous burst mode and asynchronous page mode read operations.

Program flash memories Code Flash are used as memories for software in personal computers, mobile telephones and other electronic devices. Embedded flash memories are used to equip chip cards, which are increasingly utilized as cash cards and ID cards. Flash memory is often used in MP3 players and digital cameras, magazines.

A discussion of the Intel Strata Flash memory and technology first requires a brief overview of the standard ETOXTM flash memory technology and its use. Flash memory is a member of the non-volatile class of memory devices, storage devices that maintain their data in the absence of applied power. The ETOX technology is the predominate flash technology, representing over 70% of flash memory shipments. Data is entered into the flash memory on a bit, byte, word, or page boundary through an operation called programming.

S. Srikavi
II M.Sc. Computer Science

Mobile Ad Hoc Network

A wireless ad hoc network (WANET) or mobile ad hoc network (MANET) is a decentralized type of wireless network. The network is ad hoc because it does not rely on a pre-existing infrastructure, such as routers or wireless access point. Instead, each node participates in routing by forwarding data for other nodes. The determination of which nodes forward data is made dynamically on the basis of network connectivity and the routing algorithm in use. Such wireless networks lack the complexities of infrastructure setup and administration, enabling devices to create and join networks on the fly. Each device in a MANET is free to move independently in any direction, and will therefore change its links to other devices frequently. Each must forward traffic unrelated to its own use, and therefore be a router.

The primary challenge in building a MANET is equipping each device to continuously maintain the information required to properly route traffic. This becomes harder as the scale of the MANET increases due to 1) the desire to route packets through every other node 2) the percentage of overhead traffic needed to maintain real-time routing status 3) each node has its own good put to route independent and unaware of other's needs 4) all must share limited communication bandwidth, such as a slice of radio spectrum. Such networks may operate by themselves or may be connected to the large internet. They may contain one or multiple and different transceivers between nodes. This results in a highly dynamic, autonomous topology. MANETs usually have a routable networking environment on top of a link layer ad hoc network.

Monisha P.
II M.Sc. Computer Science

Emerging Non-Volatile Memory Technologies

Non-volatile memory technologies Si-based electronics sate back to the 1990s. Ferroelectric field-effect transistor (FeFET) was one of the most promising devices replacing the conventional flash memory facing physical scaling limitations at those times. A variant of charge storage memory referred to as Flash memory is widely used in consumer electronic products such as cell phones and music players while NAND Flash-based solid-state disks (SSDs) are increasingly displacing hard disk drives as the primary storage device in laptops, desktops, and even data centers. The integration limit of flash memories is approaching, and many new types of memory to replace conventional flash memories have been proposed.

Emerging memory technologies promise new memories to store more data at less cost than the expensive-to-build silicon chips used by popular consumer gadgets including digital cameras, cell phones and portable music players. They are being Investigate and lead to the future as potential alternatives to existing memories in future computing systems. Emerging non-volatile memory technologies such as magnetic random-access memory (MRAM), spin-transfer torque random-access memory (STT-RAM), ferroelectric random-access memory (FeRAM), phase-change memory (PCM), and resistive random-access memory (RRAM) combine the speed of static random-access memory (SRAM), the density of dynamic random-access memory (DRAM), and the non-volatility of flash memory and so become very attractive as another possibility for future memory hierarchies.

Many other new classes of emerging; memory technologies such as transparent and plastic three-dimensional (3-D), and quantum dot memory technologies have also gained tremendous popularity in recent years. Subsequently, not an exaggeration to say that computer memory could soon earn the ultimate commercial validation for commercial scale-up and production the cheap plastic knockoff. Therefore, this review is devoted to the rapidly developing new class of memory technologies and scaling of scientific procedures based on an investigation of recent progress in advanced Flash memory devices.

Poornima S.
II M.Sc. Computer Science

A Drone Eye's View

Drones are widely perceived as gadgets of leisure that are sent to the skies to shoot impressive aerial photographs and high-definition video. While they are commonly used for entertainment, our study reveals that there's also a range of business applications for drones across various industries, resulting in a significant potential market that can be expected to grow exponentially. As advisers, this is a particularly appealing aspect of emerging technologies: how can they be applied to make our clients' operations more effective? Finding the answers to this question is why PwC was happy to contribute to this study and is pleased to share the results.

Drone photo and video capabilities are widely applied in the media, entertainment and both public and private security sectors; yet applications are much broader when sensor-equipped drones are combined with data & analytics and machine learning to make use of the vast amounts of information drones can provide. This combination opens up drone use to industries like power generation, utilities, logistics and agriculture, allowing data to be captured and analysed in ways that were previously difficult or impossible. Drone technology has largely surpassed human intervention for faster, easier and cheaper data collection. At an estimated market value of 409 million euros, the potential for drones in Belgium is undeniable.

The Belgium drone ecosystem is experiencing exponential growth, with players defining their role in the value chain and exploring ways to meet users' needs. Some focus on the hardware and software, while others 'drones as a service'. They all act as catalysts for the implementation of drones in our economic landscape. They are the enablers which bridge the gap between business and drone technology, playing an essential role in accelerating the use of drones in commercial applications.

Ishwarya R.
II M.Sc. Computer Science

Cyber Crime

Dear little girl,

You are the most beautiful inside out,

And your lives are unique without doubt..

There may be plenty little big moments,

And you shall wish to share such events..

But before you take that measure,

Know that not everyone online is your well- wisher.

Compliments might make you hop in ecstasy,

But remember that there's beauty in privacy..

Merrily share your joys with your close ones..

And know that every action has its own consequence..

Anything that goes online, stays eternal..

And realize that internal validation is essential than external..

The digital world is filled with filth,

Let not your innocence be tampered with..

So think twice when the urge to post crawls every time,

And be not the victim of the Cyber Crime..

Nimra Saman H.
I M.Sc. Computer Science

Green Computing

Green computing is the environmentally responsible and eco-friendly use of computers and their resources. In broader terms, it is also defined as the study of designing, manufacturing/engineering, using and disposing of computing devices in a way that reduces their environmental impact. It is also called as Green IT.

Green computing was Originated in 1992 at the U.S Environmental Protection Agency that launched Energy Star program. Shortly after that the term "Green Computing" was coined.

Green computing required:

- Impact of Electricity to the Environment
- Uses lot of electricity
- Impact of Toxic waste to the Environment.

The evolution of green computing

The program was furthered by a grant from the EPA to the Global Electronics Council, which resulted in the Electronic Product Environmental Assessment Tool (EPEAT). EPEAT is a product registry for products that are held to specific performance criteria, including materials used, greenhouse gas emissions from transportation, product longevity, energy use and end-of-lifecycle management.

What you can do

Green computing isn't only for large organizations; you can play an important part in improving sustainability in the world of IT, as well. When many individuals make the choice to use functions like Turn off monitor, turn off hard disks, System Standby / Sleep, Hibernate.

Lakshmipriya N.
I M.Sc. Computer Science

Smart Walk

A device which is helpful for the dual sensory people to be aware of the hitting obstacles before reaching it by hearing a buzzer sound as a visually impaired person and by sensing or feeling the vibration module through holding the stick.

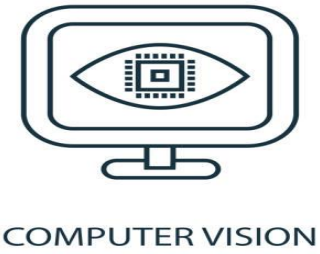
Sensory impairment people always feel difficult to cross the road and sometimes they are jammed in between a huge traffic and hence people with sensory loss frequently experience communication breakdown. Many personal, situational and environmental triggers are also responsible for communication breakdown. Difficulty performing their daily activities such as difficulty in staying physically active and difficulty in staying sharp mentally.

Dual sensory loss peoples always need a help to move from one place to another but this device will be helpful for them as their own eyes and ears to travel anywhere or to be independent always because the “Smart walk” will make aware of the hitting obstacles before reaching them within the frequency of 5fts to 6fts. The obstacles include wall, objects, humans, transports etc. This device will make buzzer sound and simultaneously the vibration module will also get on until they cross the hitting obstacles.

This is my own innovative device created on “Young Innovators Day “of 2022. I have won a first prize and I’m really happy to present this demonstrative device to the challenged peoples.

Samreen F.
I M.Sc. Computer Science

Computer Vision



Computer vision is one of the fields of artificial intelligence that trains and enables computers to understand the visual world. Computers can use digital images and deep learning models to accurately identify and classify objects and react to them.

Computer vision in AI is dedicated to the development of automated systems that can interpret visual data (such as photographs or motion pictures) in the same manner as people do. The idea behind computer vision is to instruct computers to interpret and comprehend images on a pixel-by-pixel basis. This is the foundation of the computer vision field. Regarding the technical side of things, computers will seek to extract visual data, manage it, and analyze the outcomes using sophisticated software programs.

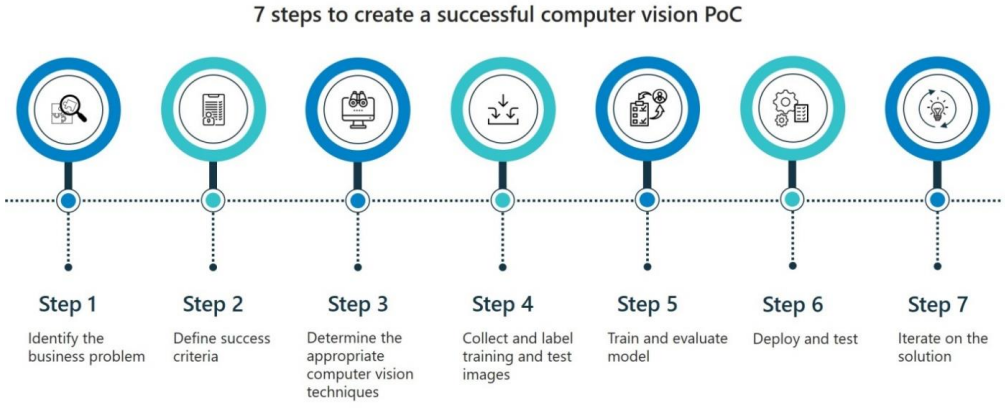
The amount of data that we generate today is tremendous - 2.5 quintillion bytes of data every single day. This growth in data has proven to be one of the driving factors behind the growth of computer vision.

How Does Computer Vision Work

Massive amounts of information are required for computer vision. Repeated data analyses are performed until the system can differentiate between objects and identify visuals. Deep learning, a specific kind of machine learning, and convolutional neural networks, an important form of a neural network, are the two key techniques that are used to achieve this goal.

With the help of pre-programmed algorithmic frameworks, a machine learning system may automatically learn about the interpretation of visual data. The model can learn to distinguish between similar pictures if it is given a large enough dataset. Algorithms make it possible for the system to learn on its own, so that it may replace human labour in tasks like image recognition.

Convolutional neural networks aid machine learning and deep learning models in understanding by dividing visuals into smaller sections that may be tagged. With the help of the tags, it performs convolutions and then leverages the tertiary function to make recommendations about the scene it is observing. With each cycle, the neural network performs convolutions and evaluates the veracity of its recommendations. And that's when it starts perceiving and identifying pictures like a human.



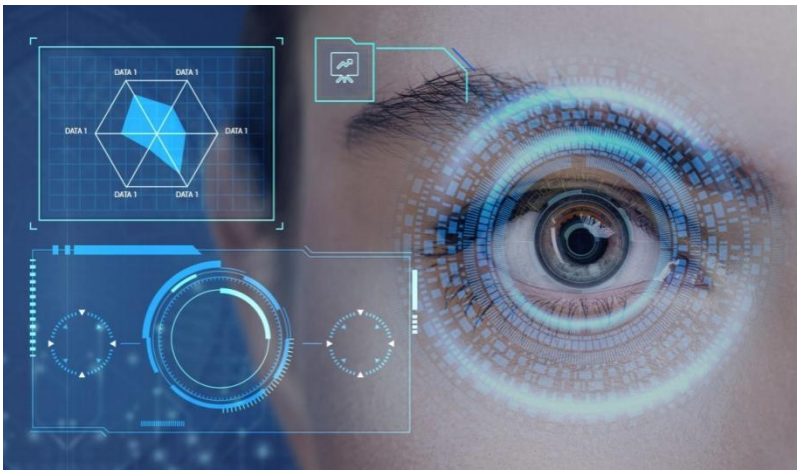
Computer vision is similar to solving a jigsaw puzzle in the real world. Imagine that you have all these jigsaw pieces together and you need to assemble them in order to form a real image. That is exactly how the neural networks inside a computer vision work. Through a series of filtering and actions, computers can put all the parts of the image together and then think on their own. However, the computer is not just given a puzzle of an image - rather, it is often fed with thousands of images that train it to recognize certain objects.

For example, instead of training a computer to look for pointy ears, long tails, paws and whiskers that make up a cat, software programmers upload and feed millions of images of cats to the computer. This enables the computer to understand the different features that make up a cat and recognize it instantly.

History of Computer Vision

For almost 60 years, researchers and developers have sought to teach computers how to perceive and make sense of visual information. In 1959, neurophysiologists started showing a cat a variety of sights in an effort to correlate a reaction in the animal's brain. They found that it was particularly sensitive to sharp corners and lines, which technically indicates that straight lines and other basic forms are the foundation upon which image analysis is built.

Around the same period, the first image-scanning technology emerged that enabled computers to scan images and obtain digital copies of them. This gave computers the ability to digitize and store images. In the 1960s, artificial intelligence (AI) emerged as an area of research, and the effort to address AI's inability to mimic human vision began.



Neuroscientists demonstrated in 1982 that vision operates hierarchically and presented techniques enabling computers to recognize edges, vertices, arcs, and other fundamental structures. At the same time, data scientists created a pattern-recognition network of cells. By the year 2000, researchers were concentrating their efforts on object identification, and by the following year, the industry saw the first-ever real-time face recognition solutions.

Computer Vision Applications

One field of Machine Learning where fundamental ideas are already included in mainstream products is computer vision. The applications include:

Self-Driving Cars

With the use of computer vision, autonomous vehicles can understand their environment. Multiple cameras record the environment surrounding the vehicle, which is then sent into computer vision algorithms that analyzes the photos in perfect sync to locate road edges, decipher signposts, and see other vehicles, obstacles, and people.

Augmented & Mixed Reality

Augmented reality, which allows computers like smartphones and wearable technology to superimpose or embed digital content onto real-world environments, also relies heavily on computer vision.

Healthcare

Computer vision has contributed significantly to the development of health tech. Automating the process of looking for malignant moles on a person's skin or locating indicators in an x-ray or MRI scan is only one of the many applications of computer vision algorithms.

Challenges of Computer Vision

Creating a machine with human-level vision is surprisingly challenging, and not only because of the technical challenges involved in doing so with computers. We still have a lot to learn about the nature of human vision.

To fully grasp biological vision, one must learn not just how various receptors like the eye work, but also how the brain processes what it sees. The process has been mapped out, and its tricks and shortcuts have been discovered, but, as with any study of the brain, there is still a considerable distance to cover.

Computer Vision Benefits

Computer vision can automate several tasks without the need for human intervention. As a result, it provides organizations with a number of benefits:

Faster and simpler process - Computer vision systems can carry out repetitive and monotonous tasks at a faster rate, which simplifies the work for humans.

Better products and services - Computer vision systems that have been trained very well will commit zero mistakes. This will result in faster delivery of high-quality products and services.

Cost-reduction - Companies do not have to spend money on fixing their flawed processes because computer vision will leave no room for faulty products and services.

Swathi .S
III B.C.A. (Shift II)

Computer

Face to face they stand

Brain to brain

Two-eyed flesh machine

And one-eyed plastic terminal

Interacting systems

Inputting, outputting, precious data.

Face to face they sit

A complex team

Driven to perform

With error-free precision

In a controlled mini-world

Ruled by instant communication.

Face to face they lie

Worlds apart Stark, cold plastic eye

Flashing programmed data;

Warm, sentimental flesh eyes

Flashing non-programmable twinkles.

Face to face they act Separate and

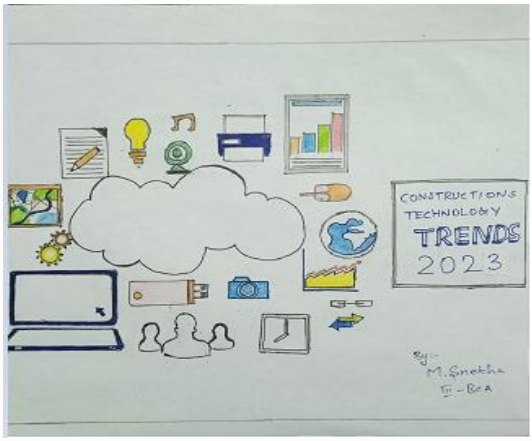
Alone - Ruled by the giant, apathetic-

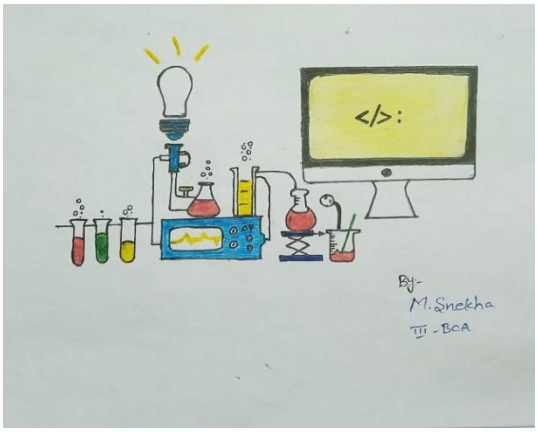
God of Technology.

Shalini D.

III BCA (Shift II)

Construction Technology Trends 2023





Neurotechnology

Neurotechnology is defined as the assembly of methods and instruments that enable a direct connection of technical components with the nervous system. These technical components are electrodes, computers, or intelligent prostheses.

Neurotechnology holds boundless potential to improve many aspects of life. It is already being practically applied in the medical and wellness industries, but also has many future implications for other contexts including education, workplace management, national security, and even sports. Neurotechnology encompasses all components that are developed to understand the brain, visualise its processes and even control, repair or improve its functions. These components can be computers, electrodes, or any other devices that can be set up to intercept electric pulses that run through the body.

In healthcare, neurotechnology is currently being used in brain imaging, by recording magnetic fields produced by electrical activity within the brain, neurostimulation, stimulating the brain and nervous system to influence brain activity; and in neurodevices, an emerging technology that monitors or regulates brain activity using an implant. Neurodevices are still mostly in the research phase, but it holds major potential for treating brain disorders.

An example of this is Neuralink. Pioneered by Elon Musk, Neuralink is developing a device that would be embedded into the human brain, where it would record brain activity and transmit this data wirelessly to a computer. Researchers would then be able to analyse these findings and use them to electrically stimulate brain activity.

If successful, it can possibly be used to cure brain diseases like Alzheimer's and Parkinson's. Neuralink has been tested on animals so far, but Elon Musk has said the company hopes to start implanting its chips in humans in 2022. Neurotechnology, while therapeutically very exciting, remains very controversial. It raises questions around rights to data and privacy. All-in-all, its future applications are not entirely mapped out but with the continued rise and identification of neurological disorders and conditions, neurotechnology is expected to experience considerable growth in the worldwide healthcare market in the coming years.

Umavathi.A

II BCA (Shift II)

A New Pedagogy in Education Sector-Challenges in Teaching and Learning

The pandemic situation forced many schools and college to remain close temporarily. Several areas are affected worldwide and there is a fear of losing future. Various schools, colleges and universities have discontinued in-person teaching. As social distancing is preeminent at this stage, this will have negative effects on learning opportunities. Educational units are struggling to find options to deal with this challenging situation. There is an urgent need to protect and save our students, faculty, academic staff, communities, societies and the nation as a whole. Several arguments are associated with e-learning. Accessibility, affordability, flexibility, learning pedagogy, life-long learning, and policy are some of the arguments related to online pedagogy. It is said that online mode of learning is easily accessible and can even reach to rural and remote areas. It is considered to be relatively cheaper mode of education in terms of the lower cost of transportation, accommodation, and the overall cost of institution-based learning. Flexibility is another interesting aspect of online learning. Students can learn anytime and anywhere, there by developing new skills in the process leading to life-long learning. The government also recognizes the increasing importance of online learning in this dynamic world.

Methods Followed in Education System

The classroom is changing from when the school bell rings to study sessions that last well into the night, students are demanding more technology services from their schools. It's important not only to keep pace with their evolving needs, but also to prepare them for the demands of the workplace tomorrow. At the same time, education institutions are under increasing pressure to deliver more for less, and they need to find ways to offer rich, affordable services and tools. Those educators who can deliver these sophisticated communications environments, including the desktop applications that employers use today, will be helping their students find better jobs and greater opportunities in the future.

Online system provides those solutions. It's a network of computing resources located just about anywhere that can be shared. They bring to education a range of options not found in traditional IT models. In fact, the integration of software and assets you own with software and

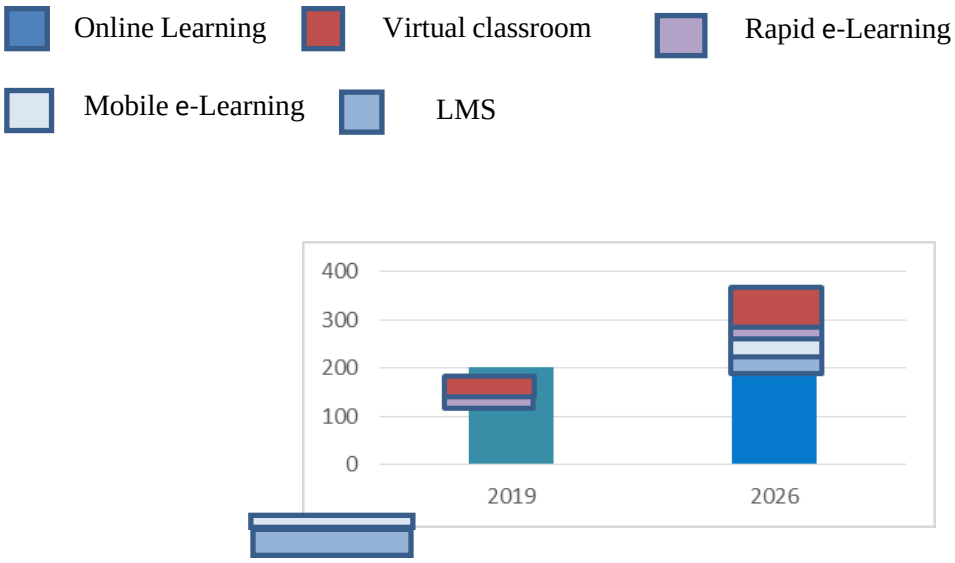
services in the cloud provides you with new choices for balancing system management, cost, and security while helping to improve services.

Future Scope of Online Education

Think a scenario where students from around the world can be part of a smart, global library. Instructor is not only a dynamic bank of knowledge and resolves students queries 24/7 with chat box, but also track individual student progress for improved learning outcomes. Futuristic it may sound, the limitless potential of cloud computing embedded in Educational Technology (EdTech) can make this reality. India saw its 4th EdTech unicorn entry in 2021 and the country's growing user-base is promising more head-turning start-ups to join this stage in the coming months.

According to a report by IBEF, India is the second-largest market for e-learning after the US and the sector is expected to reach US$ 1.96 billion by 2021 with around 9.5 million users. The National Education Policy 2020 framed by the HRD Ministry, Government of India has stated that given the explosive pace of technological development allied with the sheer creativity of tech-savvy teachers and entrepreneurs including student entrepreneurs, it is certain that technology will impact education in multiple ways. It also stated that autonomous bodies including the National Educational Technology Forum (NETF) will be created to set up standards of content, technology, and pedagogy for online/digital teaching-learning. These standards will help to formulate guidelines for e-learning by States, Boards, schools and school complexes, HEIs, etc.

The Bay Atlantic University in Washington posted a blog on site as Online learning statistic state that Online education becomes a main form towards learning in the future. One of those things is the projected online learning market for 2026, which is expected to growth almost twice as much as it was in 2019. With online e-learning leading the world's online learning market, there is no reason for the people looking forward to seeing the education system shift into the online Platform. However, by the time it comes to that technology will have advanced even further and given us sophisticated virtual distance learning system that is accessible to all.



Online education is evolving and taking on a new shape day by day. During the year 2020, it has seen even a bigger rise due to the unprecedented COVID-19 outbreak that made it impossible for schools to function normally. Despite all, professors and students of all higher education institutions have slowly begun to gravitate towards online learning. The future holds is just a prediction about the online learning but from my point of view it will be sure look stellar.

Roshini.S

I BCA (Shift II)

Robotic Process Automation

Introduction

Robotic process automation (RPA) is a technology that mimics the way humans interact with software to perform high-volume, repeatable tasks. RPA technology creates software programs or bots that can log into applications, enter data, calculate and complete tasks, and copy data between applications or workflow as required. When combined with AI and machine learning, RPA can capture more context from the content it is working with by reading text or handwriting with optical character recognition (OCR), extracting entities like names, invoice terms or addresses using natural language processing (NLP), and capturing more context from images, such as automatically estimating accident damage in an insurance claim picture.

RPA is growing in popularity because it can reduce costs, streamline processing and drive better customer experiences. Another attraction of RPA software is that business units can implement it without their having to learn new tools or ask IT teams for support -- and without changing an organization's underlying IT infrastructure. As RPA has grown in popularity, however, enterprises are seeing the need to integrate RPA process automations in their IT systems. While RPA automations can dramatically speed up a business process previously handled by humans, bots can break when application interfaces or process workflows change.

Applications of RPA

Some of the top applications of RPA include the following:

- Customer service. RPA helps companies provide better customer service by automating contact center tasks, including verifying e-signatures, uploading scanned documents and verifying information for automatic approvals or rejections.
- Accounting. Organizations use RPA for general accounting, operational accounting, transactional reporting and budgeting.

- Financial services. Companies in the financial services industry use RPA for foreign exchange payments, automating account openings and closings, managing audit requests and processing insurance claims.
- Healthcare. Medical organizations use RPA for handling patient records, claims, customer support, account management, billing, reporting and analytics.
- Human resources. RPA can automate HR tasks, including onboarding and offboarding, updating employee information and time sheet submission processes.

Benefits of RPA

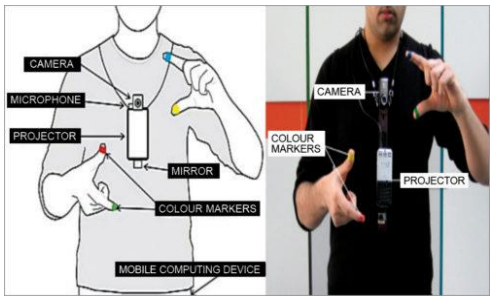
Robotic process automation technology can help organizations on their digital transformation journeys by doing the following:

- Ensuring business operations and processes comply with regulations and compliance standards;
- Dramatically speeding up processing time;
- Improving efficiency by digitizing and auditing process data;
- Reducing costs by reducing manual and repetitive tasks; and
- Enabling employees to be more productive.

Uma Mageshwari. R

I BCA (Shift II)

Hunch Technology



We, humans, interact with the world using our five senses. But as the name suggests this technology brings forward an additional hunch. Hunch is an ESP (Extra Sensory Perception) that aims at a more developed future with both the physical and digital world connected without the help of hardware devices. The origin of hunch technology can be traced back to Steve Mann who implemented a wearable computer in the form of a neck-projector coupled with a camera system in 1990. Hunch technology was coined as Wear Ur World (WUW). The device has various applications such as the drawing application in which movement of the index finger is recognized and the user can draw on any surface. The other applications include mapping, reading newspapers, checking time by drawing a wristwatch, etc. Other than being portable, this device also serves as a computer and saves time spent searching for information. Hunch technology has a wide application in the field of artificial intelligence.

Every Bit of Hunch Technology?

This device is actually a mini-projector coupled with a camera and a cell phone, designed for obeying hand gestures. Using simple hand gestures, touch screens can be obtained from any surface for various applications. This system could be trained to recognize and percept real-world objects and react as desired. It bridges the gap between the physical world and the digital world, bringing intangible, digital information out into the tangible world, It's a just-born concept that allows users to connect with the internet seamlessly. Without the use of a keyboard, or mouse we can see videos access, change, and move data simply.

Usance of Hunch Technology

- The drawing application lets users draw on any surface by observing the movement of the index finger.

- Sixth Sense also lets the user draw icons or symbols in the air using the movement of the index finger and recognizes those symbols as interaction instructions. For example, drawing a magnifying glass symbol takes the user to the map application, or drawing an '@' symbol lets the user check his/her mail.

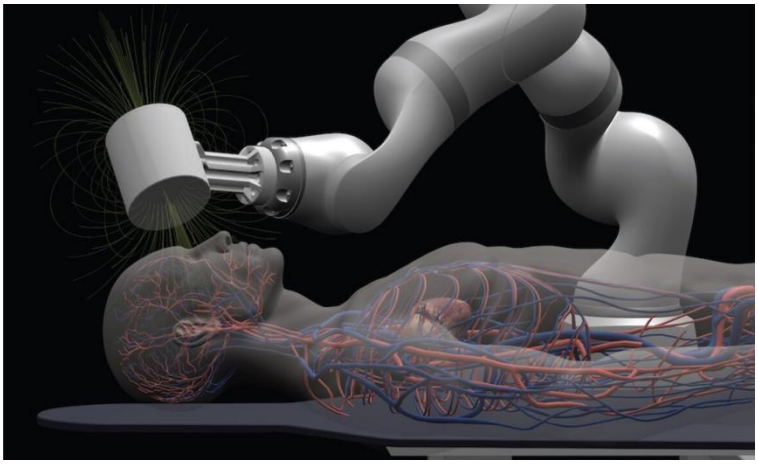
- To know the time, all one has to do is to just gesture by drawing a circle on the wrist and there appears a wristwatch.

Upturns

Imagine a world where hunch Technology is applied everywhere. In the educational field, the number of hardware components could be reduced. The usage of paper and electricity could decrease. Students could use any wall or any surface wherever they are to carry out activities that are done on a PC. Security will be assured for everyone. It could be helpful in rendering defence services. In the medical field, it could be implied to check the genuinity of drugs. It could be implemented to monitor the agricultural lands. Blind people could be able to read books and recognize objects. It could be used for the betterment of handicapped people.

Mrs.G.Pushpa Antanet Sheeba
Assistant Professor
Department of Computer Science.

Joystick-Operated Robot Could Help Surgeons Treat Stroke Remotely



MIT engineers have developed a telerobotic system to help surgeons quickly and remotely treat patients experiencing a stroke or aneurysm. With a modified joystick, surgeons in one hospital may control a robotic arm at another location to safely operate on a patient during a critical window of time that could save the patient's life and preserve their brain function.

The robotic system, whose movement is controlled through magnets, is designed to remotely assist in endovascular intervention — a procedure performed in emergency situations to treat strokes caused by a blood clot. Such interventions normally require a surgeon to manually guide a thin wire to the clot, where it can physically clear the blockage or deliver drugs to break it up.

One limitation of such procedures is accessibility: Neurovascular surgeons are often based at major medical institutions that are difficult to reach for patients in remote areas, particularly during the "golden hour" - the critical period after a stroke's onset, during which treatment should be administered to minimize any damage to the brain.

The MIT team envisions that its robotic system could be installed at smaller hospitals and remotely guided by trained surgeons at larger medical centers. The system includes a medical-grade robotic arm with a magnet attached to its wrist.

The researchers demonstrated the system in a “phantom,” a transparent model with vessels replicating complex arteries of the brain. With just an hour of training, neurosurgeons were able to remotely control the robot’s arm to guide a wire through a maze of vessels to reach target locations in the model.

“We imagine, instead of transporting a patient from a rural area to a large city, they could go to a local hospital where nurses could set up this system. A neurosurgeon at a major medical center could watch live imaging of the patient and use the robot to operate in that golden hour. That’s our future dream,” says Xuanhe Zhao, a professor of mechanical engineering and of civil and environmental engineering at MIT.

PRIYADHARSHINI A.

III B.Sc. Computer Science

Metaverse Technology

In science fiction, the "**metaverse**" is a hypothetical iteration of the Internet as a single, universal, and immersive virtual world that is facilitated by the use of virtual reality (VR) and augmented reality (AR) headsets. In colloquial usage, a "metaverse" is a network of 3D virtual worlds focused on social connection.

The term "metaverse" originated in the 1992 science fiction novel Snow Crash as a portmanteau of "meta" and "universe". Metaverse development is often linked to advancing virtual reality technology due to the increasing demands for immersion. Recent interest in metaverse development is influenced by Web3, a concept for a decentralized iteration of the internet. Web3 and metaverse have been used as buzzwords to exaggerate the development progress of various related technologies and projects for public relations purposes. Information privacy, user addiction, and user safety are concerns within the metaverse, stemming from challenges facing the social media and video game industries as a whole.

Hardware

Access points for the metaverse includes general-purpose computers and smartphones, augmented reality, mixed reality, and virtual reality.

Dependence on VR technology has limited metaverse development and wide-scale adoption Limitations of portable hardware and the need to balance cost and design have caused a lack of high-quality graphics and mobility Lightweight wireless headsets have struggled to achieve retina display pixel density needed for visual immersion. Another issue for wide-scale adoption of the technology is cost, with consumer VR headsets ranging in price from $300 to $3500 as of 2022.

Software

There has been no wide-scale adoption of a standardized technical specification for metaverse implementations, and existing implementations rely primarily on proprietary technology. Interoperability is a major concern in metaverse development stemming from concerns about transparency and privacy. There have been several virtual environment standardization projects.

glTF is a specification for the efficient transmission and loading of 3D scenes and models by engines and applications created by the Khronos Group, an industry consortium developing royalty free open standards. In August 2022 it was announced that glTF 2.0 had been released as the ISO/IEC 12113:2022 International Standard.

Metaverse development may magnify the social impacts of online echo chambers and digitally alienating spaces or abuse common social media engagement strategies to manipulate users with biased content.

Keza MacDonald of The Guardian criticized the utopianism of technology companies who claim that a metaverse could be a reprieve from worker exploitation, prejudice, and discrimination. MacDonald stated that they would be more positive towards metaverse development if it was not dominated by "companies and disaster capitalists trying to figure out a way to make more money as the real world's resources are dwindling Marketing professor Andreas Kaplan, citing their experience studying Second Life users, argues that the metaverse may have a generally negative societal impact due to their strongly addictive potential.

SHYAMALA DEVI M.

III B.Sc. Computer Science

Technological Era

Technology is the application of scientific knowledge for practical purposes, especially in industry. skills, methods, and processes used in the production of goods or services or in the accomplishment of objectives, such as scientific investigation. Technology has become an integral part of our daily lives; from the way we communicate and work to the way we learn and play. Technology has made it easier to access information and increase efficiency in many areas of life. It has also enabled us to create new products and services that have changed the way we live. As technology advances, it is likely to continue to shape and transform our lives in ways we may not yet be able to predict.

Technology has become an integral part of our daily lives, and its impact on college students is no exception. From laptops and smartphones to online lectures and coursework, technology has revolutionized the college experience.For college students, technology offers a host of advantages. Digital learning tools make it easier for students to complete assignments and access course material. Online lectures, discussion boards, and virtual classroom spaces provide opportunities for students to interact with their peers, professors, and experts in their field.

Technology also offers a range of new opportunities for college students. Online resources, such as the library, make it easy for students to access information from around the world. Social media sites allow students to stay connected to each other and share their experiences. And with the rise of mobile devices, students can now take their studies on the go. Of course, technology also has its drawbacks.

H.POOJA

II B.Sc.Computer Science

Extended Reality

According to the latest insights as to how exactly modern students of today prefer to use technology and how does their learning get an impact if they use technology, it was revealed that the use of modern equipment technology and tools, the learning and interactivity of students increases. They also find it much more interactive, as well as full of interesting areas, when aided by technology. The transfer of knowledge becomes very easy and convenient, as well as effective. What this means is, that our minds now tend to work faster when assisted with the use of modern technology, be it any part of life, here we talk about education. The reliance and dependence of such an innovation, that simply makes life an easy, smooth journey is completely unavoidable these days even in schools, universities and colleges. Students today can make use of technology. The internet has grown in importance by many folds, over the process of decade. Its importance in the education world can now never be undermined. Despite the chances of fraud and drawbacks, the use of the internet is like a blessing for students. Today, the internet is something that is present in almost everything we use. From television to gaming, and our phones, the internet is literally everywhere. The use of the internet allows students to find amazing convenience, they can find various kinds of help, tutorials and other kinds of assisting material which could be used to academically improve and enhance their learning.

Visual images always have a strong appeal compared to words. Using projectors and visuals to aid in learning is another form of great technological use. Top institutions around the world, now rely on the use of amazing PowerPoint presentations and projections in order to keep the learning interactive and interesting. Technological use such as projectors within the schools and colleges can take the interaction and interest levels right up and also improve motivation. Students like to see appealing visuals and something that entices them to think rather than just reading words. The learning part also becomes pretty efficient when it comes to technology. Digital footprint in the education sector. If we talk about digital and education, then the penetration of digital media within the education sector has now grown. This penetration has resulted in round the clock connectivity with students and different forums that are available for different kinds of assignments or help.

As the power of digital increases, there are and there will be more applications that will assist students in development and learning. Online degrees now have become a very common phenomenon. People wish to take up online courses for their learning and certifications. Top institutions offer amazing online programs with the use of various applications and the internet. This is a concept that will continue to rise as it gets more support and awareness. The online degree scenario around the world is more famous among students who work and look for flexible studying programs.

The role of technology in the field of education is fourfold: it is included as a part of the curriculum, as an instructional delivery system, as a means of aiding instructions and also as a tool to enhance the entire learning process. Thanks to technology; education has gone from passive and reactive to interactive and aggressive.

The modern technologies are demanding that teachers learn how to use these technologies in their teaching. Hence these new technologies increase the teachers' training needs. Gressard and Loyd (1985) asserted that teacher's attitudes toward computers are a key factor in the successful implementation of ICT in education. They pointed out that teachers do not always have positive attitudes towards computers and their poor attitudes may lead to a failure of the computer- based projects.

Another barrier given by Butler and Sellbom (2002) and Chizmar & Williams (2001) is reliability. Reliability included hardware failures, incompatible software between home and school, poor or slow internet connectivity and out of date software which are available mostly at school while the students/educators are having more up-to-date software at home. In educational context, ICT has the potential to increase access to education and improve its relevance and quality. Tinio (2002) asserted that ICT has a tremendous impact on education in terms of acquisition and absorption of knowledge to both teachers and students through the promotion of:

Creative Learning: ICT promotes the manipulation of existing information and to create one's own knowledge to produce a tangible product or a given instructional purpose.

 Integrative learning: ICT promotes an integrative approach to teaching and learning, by eliminating the synthetic separation between theory and practice unlike in the traditional classroom where emphasis encloses just a particular aspect.

 Evaluative learning: Use of ICT for learning is student centered and provides useful feedback through various interactive features. ICT allow students to discover and learn through new ways of teaching and learning which are sustained by constructivist theories of learning rather than students do memorization and rote learning.

Positive impact

Enhanced Teaching and Learning: Technological developments like digital cameras, projectors, mind training software, computers, Power point presentations, 3D visualization tools; all these have become great sources for teachers to help students grasp a concept easily. It has to be understood that visual explanation of concepts makes learning fun and enjoyable for students. They're able to participate more in the classroom and even teachers get a chance to make their classes more interactive and interesting.

Globalization:

When school in different parts of the state, students can "meet" their counterparts through video conferencing without leaving the classroom. Some sites, such as www.glovico.com are used to help students learn foreign languages online by pairing a group of students with a teacher from another country.

No Geographical Limitations:

With the introduction of online degree programs there is hardly any need of being present physically in the classroom. Even several foreign universities have started online degree courses that student can join.

D.KOTHAI

II B.Sc. Computer Science.

Technology Changing the World

In a blink of an eye, you see a twirl, you barely notice that technology is changing the world;

Changed values, ideas, and desires. New machines, new algorithms, new wires;

But what wires you to be so different?

Is it the change in the communication system?

Communication system! But so, communication is different.

Is that you were hired by a system that nobody admires?

Do's are don'ts as wills are won't; Fonts and colors smoked in blunts.

From globalism to remote working, emojis to twerking; Easy for ones, despair for other Such bothers, nothing seems to be working.

The friendly device that you trust is a danger lurking; As a geek sits observing; But friendly, or not? Is a trendy knot; Opinions of others are all that you got.

You rely on systems as you forgot to think for yourself; Critical thinking was left on a shelf.

And as you dwell, in a flood of news, you see the blood of fews;

To make you fear or leave you feeling blues;

Be them true or fake, you believe in the message they want to create;

So fake is the new awake, to tear you apart from the values of your heart;

Information, what a strange sensation it is;

I prefer the innovation of misinformation, what an art! Businesses in the brink of illnesses;

Being swollen by the masses, and falling for harasses; Others growing from people that wipe their asses.

Economies stooping before technologies; With fake news splashing, markets crashing,

Giants washing their hands with dirty cash-ins. Science and medicine advance faster than ever; With the artificial capacity to calculate,

Things that go beyond clever.

Old jobs being replaced by new ones;

Computers assume the war, as soldiers lay the guns.

But forget the military training and trading of horses, as cybersecurity courses assume conflict courses;

For instance, conflicts are cyber, hackers portray as soldiers;

As firewalls protect folders from the hands of scolders; Clouds of data, portray the fate;

People who blindly trusted the new maker.

Data lost to ransomware, being traded when you're not aware;

And security breaches that infect and leak sensitive information;

You lost your freedom, you lost your rhythm; You are just a number in reclusion;

Being fed by a smart illusion

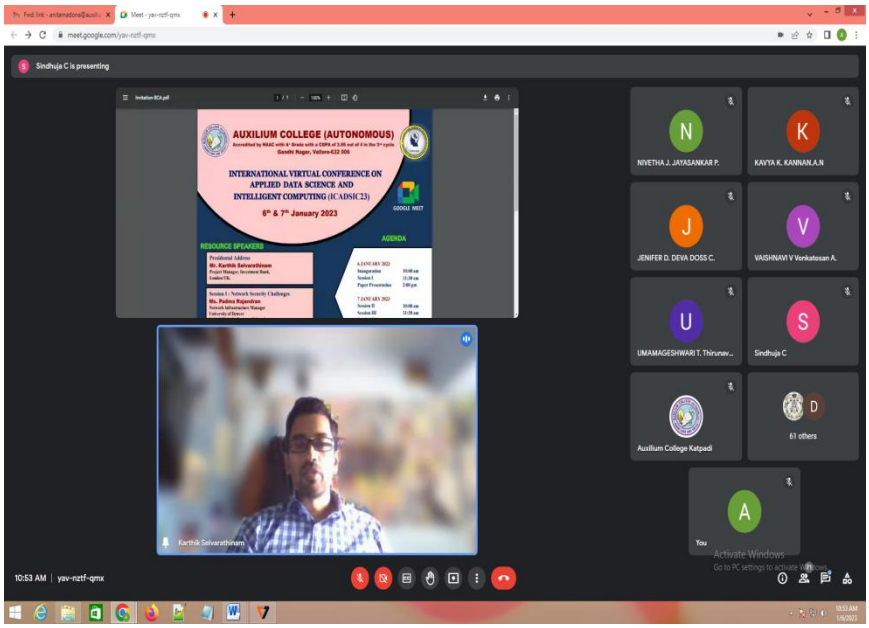
MAHEK A.

II B.Sc. Computer Science

GALLERY

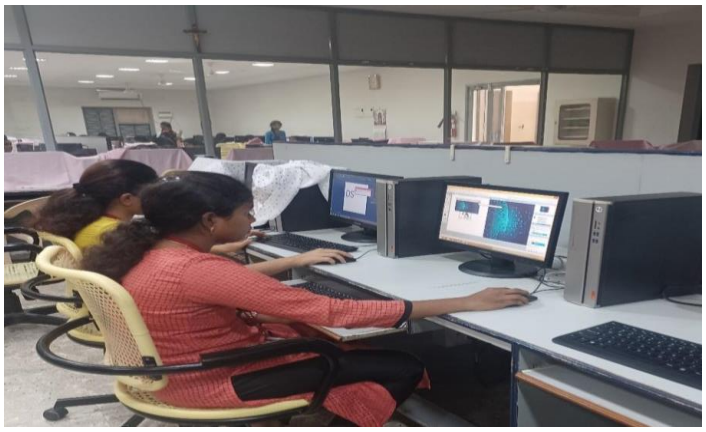
State Level Symposium ifest-22

Faculty Development Program on Microsoft Power BI



International Virtual Conference on Applied Data Science and Intelligent Computing

AdZap Event



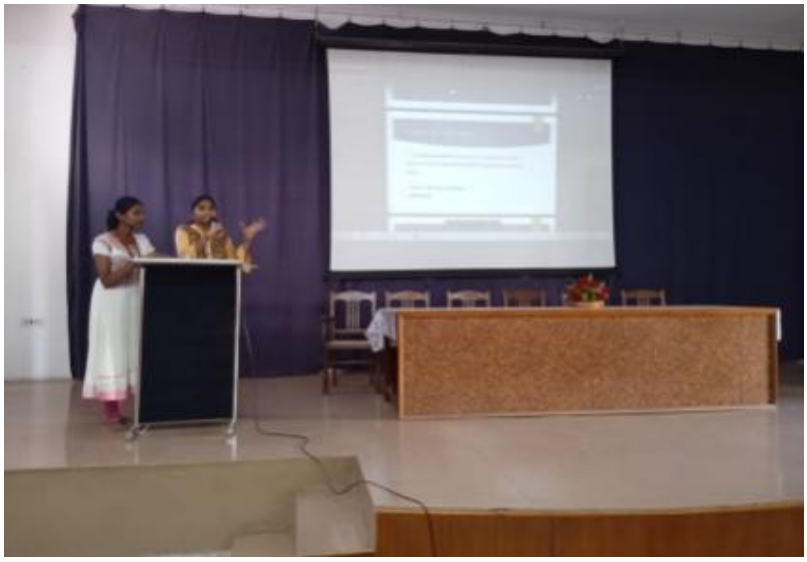
Logo Design

Poster Presentation

Collage Making

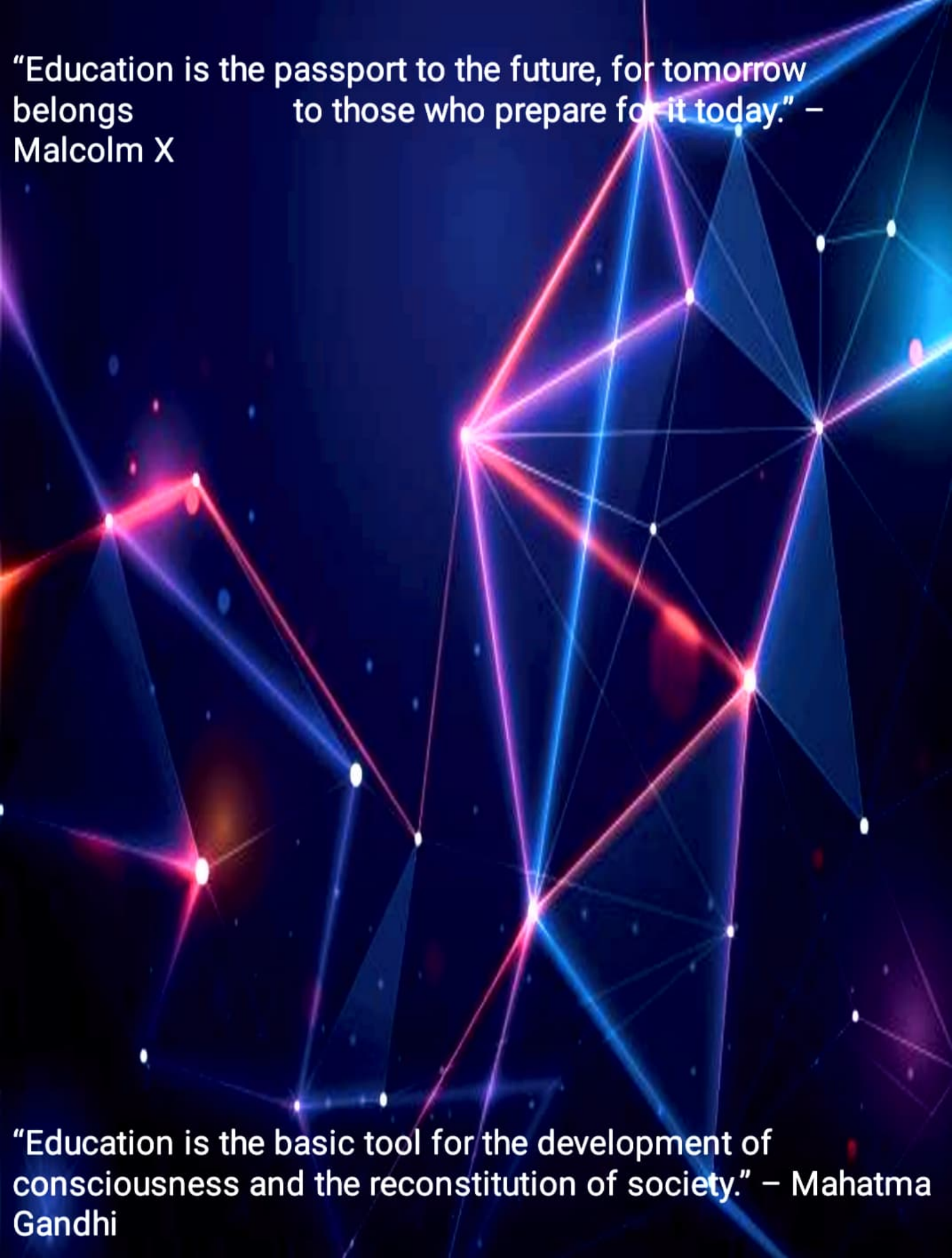
Guest Lecture on “Machine Learning”

Model Making Competition



Paper Presentation

Overall Championship - BCA (SHIFT II)
Space 2022 - Sacred Heart College, Tirupattur


“Education is the passport to the future, for tomorrow belongs to those who prepare for it today.” – Malcolm X
“Education is the basic tool for the development of consciousness and the reconstitution of society.” – Mahatma Gandhi