



SVCEI Sri Venkateswara
College of
Engineering

RAIC



SRI VENKATESWARA COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

in association with

ELECTRONICS AND COMMUNICATION ENGINEERS ASSOCIATION

&

THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS- SF

&

ROBOTICS AND ARTIFICIAL INTELLIGENCE CLUB

REPORT ON UPAGRAHA'23

The National level technical symposium, UPAGRAHA'23 held between 11th October 2023 (Wednesday) and 12th October 2023 (Thursday) was organized by the Department of Electronics and Communication Engineering in association with the Electronics and Communication Engineers Association (ECEA) along with the Institution of Electronics and Telecommunication Engineers-Student Forum (IETE-SF) and Robotics and Artificial Intelligence Club (RAIC). The target audiences were the second, third and final year students. The event witnessed participation from students across various departments and colleges.



PROPOSAL OF THE EVENT



SRI VENKATESWARA COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

In association with

ELECTRONICS AND COMMUNICATION ENGINEERS ASSOCIATION

along with

**THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS -
STUDENTS FORUM**

&

ROBOTICS AND ARTIFICIAL INTELLIGENCE CLUB

04th Sep 2023

Submitted to the Principal through HOD, ECE

Respected Sir,

The Department of ECE along with the student forums have been able to organize the highly acclaimed intercollegiate symposiums known as UPAGRANA until last year, which had received positive feedback. This symposium had been a resounding success in previous years, receiving commendable feedback from participants and attendees alike. We are immensely grateful for the continuous encouragement and support extended by our college management, which has been instrumental in facilitating these achievements.

The ECE Association, IETE Students' Forum-SVCE and Robotics and Artificial Intelligence Club (RAIC) are planning to conduct **UPAGRANA'23**, a two-day National-level intercollegiate technical symposium on October 12th and 13th, 2023 on our esteemed campus.

The vision for UPAGRANA'23 is to provide a distinguished platform where students can freely exchange knowledge, engage in discussions on pivotal issues, and partake in intellectually stimulating academic debates. We believe that such an event will not only enhance the educational experience of our students but also strengthen the bonds between our college and other institutions in the region.

To: HOD-ECE
Approved
JG
JTG



The following events have been planned for UPADRASHA'23:

1. Paper presentation
2. Hackers Event
3. Coding event
4. Tech Talk-03 (PC Repair event)
5. Quiz related event
6. E-Gadget Workshop
7. Technical Conventions
8. Quiz fest
9. MATLAB related event

The events will be open for students from all engineering colleges, the required budget for the event is estimated to be around Rs.70,000.

We kindly request your consideration of our proposal, as your approval would undoubtedly contribute to the academic enrichment of our college community.

Thankyou for your consideration.


P.T. K. Koushik
Asst. Secy
IISA, IITE & RAC Co-ordinator


Dr. G. A. Sathish Kumar
PROVICE

Forwarded & Recommended for your approval.



SVC Sri Venkateswara
College of
Engineering

RAIC



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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STUDENTS FORUM**

&

ROBOTICS AND ARTIFICIAL INTELLIGENCE CLUB

21st Sep 2023

Submitted to the principal through HoD- ECE

Respected sir,

The students' forum of Electronics and Communication Department request the preponement of the upcoming National intercollegiate technical symposium, UPAGRAHA'23 scheduled for 12th and 13th October, 2023. The reason for this request is the unforeseen visit of the National Board of Accreditation (NBA) to our college on the dates of 13th and 14th of October, 2023.

Hence, we request to change the dates of the technical symposium to 11th and 12th October, 2023. We also request to allow the other college students to use the transport and hostel facilities of our college in the above mentioned dates.

Thank you for your consideration.

Dr. T. J. Jayaprakha

ASP, ECE

BCEA, JETE & RAIC Coordinator

Dr. G. A. Satish Kumar

HO-D-ECE

AGENDA OF THE EVENT

UPAGRAHA'23

AGENDA:

11.10.2023 - DAY 1

08:30 am to 09:00 am : Prayer Song.

09:00 am to 09:15 am : Welcome address by Ms.Saritha R, Secretary - NAAC.

09:15 am to 09:30 am : Address of the gathering by Dr/G A Sathish Kumar, HOD, ICE Department.

09:30 am to 09:45 am : Address of the gathering by Dr.B.Ganesh Vaidyanathan, Principal, NVCE.

09:45 am to 09:55 am : Introduction of the Chief Guest by Dr. T. J. Jayaprakha, Faculty Coordinator.

09:55 am to 10:15 am : Special Talk by Chief Guest, Smt. Ramya G, AGM, NEC.

10:20 am to 10:30 pm : Commencement of UPAGRAHA'23 Day 1 Events.

10:30 pm to 10:45 pm : Lunch.

12.10.2023 - DAY 2

09:00 am to 09:00 pm : Commencement of Upagraha'23 Day - 2 Events.

10:00 pm to 10:00 pm : Lunch.

10:30 pm to 10:35 pm : Introduction of the Chief Guest by Dr. T. J. Jayaprakha, Faculty Coordinator.

10:35 pm to 10:45 pm : Special Talk by Chief Guest, Dr. V. Narayanan, Director, LPSC, ERD.

10:45 pm to 10:50 pm : Prize Distribution.

10:50 pm to 10:55 pm : Vote of thanks by Ms. Meetha V.Narasimhan, IETE - Chairman.



THE INAUGURAL CEREMONY:

The Inaugural ceremony commenced with the arrival of the Chief Guest Smt.Ramya Gowrisankaran, AGM, NEC along with Dr.G.A.Sathish Kumar, Head of the Department, Department of ECE and faculty coordinators of the association, Dr.T.J.Jeyaprabha, Associate professor, Department of ECE and Mr.S.Elangovan, Assistant professor, Department of ECE.



Chief Guest, Smt. Ramya Gowrisankaran, Dr. G. A. Sathish Kumar, Head of the Department, Dr. T.J.Jeyaprabha, Faculty coordinator along with Office Bearers of the Clubs.

The event began with Thiruvith Thaa: Vazhithu by Ms. Clarinda Susan and Ms. Monisha Rajam followed by the prayer song by Ms. Shreeja K, 3rd year, SVCE. Ms. Sneha R, Secretary, EAIC delivered the welcome address. Dr.G.A.Sathish Kumar, Head of the Department, Department of ECE addressed the gathering. Dr.T.J.Jeyaprabha, Associate professor, Department of ECE introduced the chief guest to the gathering. The Chief Guest, Smt.Ramya Gowrisankaran, AGM, NEC delivered a short presentation on "5G and Beyond" and shared her knowledge with the students present at the ceremony.

ABOUT UPAGRAHA'23:

Upagraha'23 is aimed with an objective to provide students from different engineering colleges a platform to demonstrate their technical abilities. It offers a wide variety of events for engineers to display their skills across various technical domains. This platform not only enhances students' knowledge but also serves as an ideal opportunity to enhance their technical and non-technical competencies. Moreover, it fosters students' curiosity and deepens their grasp of emerging concepts. The event schedule offers a wide range of chances for students to showcase their skills in different technical fields.

ABOUT THE CHIEF GUEST:

Smt Ramya Gowrisankaran, AGM, NEC is an accomplished expert with a proven track record of experience in the Wireless Telecom Industry. She started her career as a Board Design Engineer and later handled multiple Product Design and Development - Embedded systems: 5G Radio, Wireless Backhaul, Network Access switch/Aggregators etc. She has almost 20+ years of experience in the Telecom field. She is an expert in the field of Product Design and Development. She worked as project manager in NEC and later became the senior manager. She excelled in the role of technical lead in Aricent Technologies (Holdings) Ltd. She performed as a senior design engineer in Midas Communication Technologies.

SNAPSHOTS OF THE EVENT:



Lecture by Smt Ramya Gowrisankaran



Dr G.A Sathish Kumar, HOD, ECE Department, addressing the gathering



Faculty and Audience attending Guest Lecture

ATTENDANCE SHEET

Date: _____
 Time: _____
 Address: _____

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The following are the main components of the system:

- 1. **System Architecture**
- 2. **System Requirements**
- 3. **System Design**
- 4. **System Implementation**
- 5. **System Testing**
- 6. **System Deployment**
- 7. **System Maintenance**
- 8. **System Security**
- 9. **System Performance**
- 10. **System Scalability**
- 11. **System Reliability**
- 12. **System Availability**
- 13. **System Flexibility**
- 14. **System Interoperability**
- 15. **System Integration**
- 16. **System Migration**
- 17. **System Upgrade**
- 18. **System Decommissioning**
- 19. **System Archiving**
- 20. **System Backup**
- 21. **System Recovery**
- 22. **System Disaster Recovery**
- 23. **System Business Continuity**
- 24. **System Risk Management**
- 25. **System Compliance**
- 26. **System Audit**
- 27. **System Reporting**
- 28. **System Monitoring**
- 29. **System Alerting**
- 30. **System Logging**
- 31. **System Configuration**
- 32. **System Administration**
- 33. **System Support**
- 34. **System Training**
- 35. **System Documentation**
- 36. **System Change Management**
- 37. **System Configuration Management**
- 38. **System Version Control**
- 39. **System Release Management**
- 40. **System Patch Management**
- 41. **System Vulnerability Management**
- 42. **System Incident Response**
- 43. **System Forensics**
- 44. **System Legal**
- 45. **System Ethics**
- 46. **System Privacy**
- 47. **System Data Protection**
- 48. **System Information Security**
- 49. **System Cybersecurity**
- 50. **System Network Security**
- 51. **System Application Security**
- 52. **System Infrastructure Security**
- 53. **System Operational Security**
- 54. **System Physical Security**
- 55. **System Personnel Security**
- 56. **System Process Security**
- 57. **System Policy Security**
- 58. **System Standard Security**
- 59. **System Framework Security**
- 60. **System Reference Security**
- 61. **System Best Practice Security**
- 62. **System State of the Art Security**
- 63. **System Leading Practice Security**
- 64. **System Innovation Security**
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Handwritten notes and calculations below the table.

SRI SAIKATAPALI COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRICALS AND ELECTRONICS ENGINEERING
PROGRAMS

SRI SAIKATAPALI ENGINEERING COLLEGE - DAY 1

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SRI SAIKATAPALI ENGINEERING COLLEGE - DAY 2

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SRI SAIKATAPALI INSTITUTE OF TECHNOLOGY - DAY 2

NAME	EMAIL ID	PHONE NO	SIGNATURE
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Dr. Pooja ...
 S. Sai Vignesh Sai Vignesh @ gmail . com 9839462594
 A-1

REPORT ON PROMPTIFY

Promptify was organized as a part of Upagraha'23 by the Department of Electronics and Communication Engineering. The event aimed at bringing out the technical and prompting skills of the participants and also to check their ability to complete a task in the timeframe provided. A total of 40 teams (80 students) participated in the event.

Commencement of the event	October 11 th 2023(12.30 PM IST)
End of the Event	October 11 th 2023(3.00 PM IST)
Total Teams:	40
Total Participants	80

The judges for the event were Mr. K Venkatesh, Assistant Professor and Dr. S. Vignyanand, Assistant Professor.

The event commenced at 12.30 pm and the venues for the event were CB531 and CB532. The rules and regulations were explained to the participants by the student coordinators. The round 1 was a Pen and Paper round in which the questions were based on Electronics and Communication related clues and AI generated images. The duration of the first round was 30 minutes.

Out of the total 40 teams, 11 teams were shortlisted based on their scores and were qualified to the second round. In the second round, participants were expected to handle tasks that will be revealed spontaneously. The winners were determined by their ability to complete these tasks by using AI tools within the specified time limit.

The event coordinators were Mr. Aadhirnya Narayanan B (III-year ECE-A) and Mr. Mukesh S (III-year ECE-B).

Flyer of the Event:

The flyer is for an event titled "PROMPTIFY". At the top, it features logos for SVCE (Sri Venkateswara Christian Engineering College), UPAGRAHA 23, and RAIC (Regional AI Conference). The main text "PROMPTIFY" is in large, white, bold letters. Below it is a stylized logo consisting of the word "PROMPTIFY" arranged in a circular pattern. Underneath the logo, the text "ELEVATE WITH AI EXPERTISE" is displayed. A calendar icon is followed by the date "11/10/2023". At the bottom, contact information is provided for Mukesh S (+91 96290 31890) and Aadhiithya Narayanan B (+91 93455 26682).

SVCE Sri Venkateswara Christian Engineering College
UPAGRAHA 23
RAIC Regional AI Conference

PROMPTIFY

ELEVATE WITH AI EXPERTISE

 **11/10/2023**

CONTACT:
Mukesh S
+91 96290 31890

Aadhiithya Narayanan B
+91 93455 26682

Attendance Sheet of the event:

Attendance Sheet

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QUESTION 1

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	100	110	120	130	140	150	160	170	180	190	200
Expenses	80	85	90	95	100	105	110	115	120	125	130
Profit	20	25	30	35	40	45	50	55	60	65	70

QUESTION 2

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenue	100	110	120	130	140	150	160	170	180	190	200
Expenses	80	85	90	95	100	105	110	115	120	125	130
Profit	20	25	30	35	40	45	50	55	60	65	70

Snapshot of the Event:



Round 1 (pen and paper round)



A team is being evaluated by S.R.K Venkatesh, Assistant Professor, ECE in the Round 2

Sample Question paper:

Round 1:

Question 1:

Clue 1: It is used for power regulation and conversion in electronic circuits.

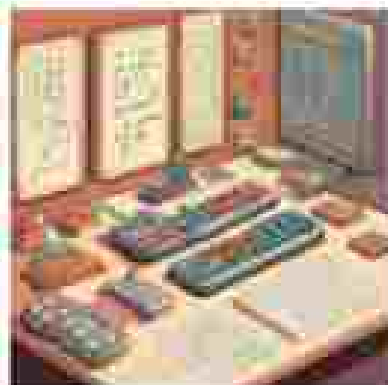
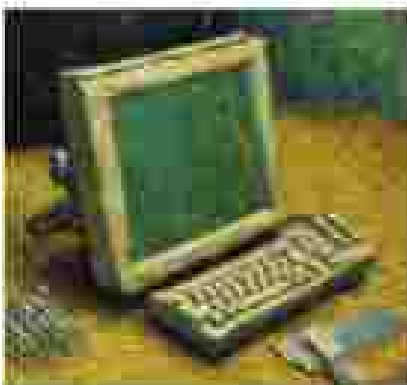
Clue 2: It operates based on the principles of self-inductance.



Question 2:

Clue 1: This component is often called the "brain" of electronic devices.

Clue 2: It can perform arithmetic and logical operations.



Question 3:

Clue 1: It is commonly used in displays and indicators.

Clue 2: It emits different colors based on the materials used.



Question 4:

Clue 1: It is commonly used in audio systems and speakers.

Clue 2: This component increases the power of electrical signals.



Round 2:

1. Space Calculator - Calculate Light-Year Distance

- Description: Participants create a program that calculates the distance in light-years to a specified celestial object.

Prompt Question: Write a program that calculates the distance in light-years of different Galaxies.

2. Alien Language Translator - Code Challenge:

Description: Participants program that translates English text into an imaginary alien language.

Prompt Question: Create a program that translates 'Hello, Earthlings!' into the Zorblat language.

3. Space-themed Clock - Countdown Timer:

Description: Participants use a program and tkinter or any other GUI to create a space-themed countdown timer with custom messages.

Prompt Question: Build a Python program with tkinter that counts down from 10 minutes, displaying 'Blast-off in T-minute' messages.

4. UFO Tracker - Real-time Data Visualization:

Description: Participants design a program that retrieves and displays real-time UFO sighting data on a map.

Sample Prompt Question: Create an application that visualizes recent UFO sightings on a world map.

5. Astronomical Calculator - Flakeset Data Retrieval:

Description: Participants code a Python tool to fetch and display data about celestial bodies (e.g., planets, moons).

Prompt Question: Write a program that retrieves and prints information about Saturn's rings.

6. Cosmic Quiz App - Interactive Quiz Game:

Description: Participants build a Python-based quiz app on space-related topics with multiple-choice questions.

Prompt Question: Develop a Python quiz app on the topic of 'Exoplanets' with 5 multiple-choice questions.

7. Mars Rover Simulator - Remote Control Program:

Description: Participants create a Python script to simulate remote control of a Mars rover.

Prompt Question: Write a Python program to remotely control a Mars rover's movement (forward, backward, left, right).

8. Space Mission Planner - Optimal Route Finder:

Description: Participants write a Python program that finds the optimal route for a spacecraft to reach a distant planet.

Evaluation Sheet:

Round 2:

UNIVERSITY COLLEGE OF ENGINEERING
 DEPARTMENT OF ELECTRONICS AND COMMUNICATIONS ENGINEERING
 (PROVIDE AN APPROPRIATE ANSWER)

DATE: 12/11/2023

Q.No	QUESTION	ANSWER	MARKS	PERCENTAGE	GRADE	SCORE OF STUDENT	TOTAL MARKS
1	Define Miller Effect	A Miller Effect is a parasitic capacitance					25
2	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					39
3	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					45
4	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					43
5	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					39
6	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					30
7	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					4
8	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					42

9	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					35
10	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					44
11	Define Miller Effect	Miller Effect is the increase in input capacitance of an inverting amplifier					46
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(Signature)
 (Date)

Winners of Promptify:

Place	Team Name	Participants Name	College
1	Cypher Assassins	H. Madhav V. Subash	Sri Vanhateswara College of Engineering
2	Inventors	M. Abharajitha A.S. Ajay Kumar	Sri Vanhateswara College of Engineering

Report by:

Mr. AADHITHYA NARAYANAN B (III-Year, ECE-A)

Executive Member, IETE-SF

REPORT ON ARDUINO ALLEY

Arduino Alley was organized by the Department of Electronics and Communication Engineering in association with the Electronics and Communication Engineers Association (ECEA), Institution of Electronics and Telecommunication Engineers Student Forum of SVCE (ISF SVCE), and Robotics and Artificial Intelligence Club (RAIC) as an event in Upagraha'23, ECE Department Symposium.

Commencement of the event	October 11th, 2023(10:30 AM IST)
End of the event	October 11th 2023(3:00 PM IST)
Total Teams	24 Teams
Total Participants	96

Event Description:

Arduino Alley comprised two thrilling rounds that tested the participant's knowledge and innovation. The rules and regulations were announced to the participants by the student coordinators.

Round 1: Arduino Knowledge Challenge (MCQs)

- Teams of four students each.
- Teams split into batches for MCQs.
- Average scores determined qualification for Round 2.
- Questions based on Arduino, sensors, and actuators.
- Students had to solve 25 questions in 30 minutes.

Out of the total 24 teams, 6 teams were shortlisted based on their scores and were qualified to the second round.

Round 2: Arduino Game Master (Sensor-Based Game Development)

- Participants created unique sensor-based games.
- Sensors and components provided for game development.
- Emphasis on creativity, functionality, and presentation.
- Duration of the event: 1.5 hours.

The event coordinators were Mr Parvath R. (III-year ECE-B) and Mr Kiran Yadav (III-year ECE-B). The faculty coordinators were Mr V Yekesh, Assistant Professor, Mr R Ramesh Kumar, Assistant Professor and Mrs S Radhika, Assistant Professor.

We would like to extend our heartfelt gratitude to our event sponsor, F22 Labs, for their invaluable support. Special thanks to Mr Shubham Ambastha and Mr. Keshav Surana from F22 Labs for participating as judges in Round 2, and bringing their expertise to evaluate the participants.

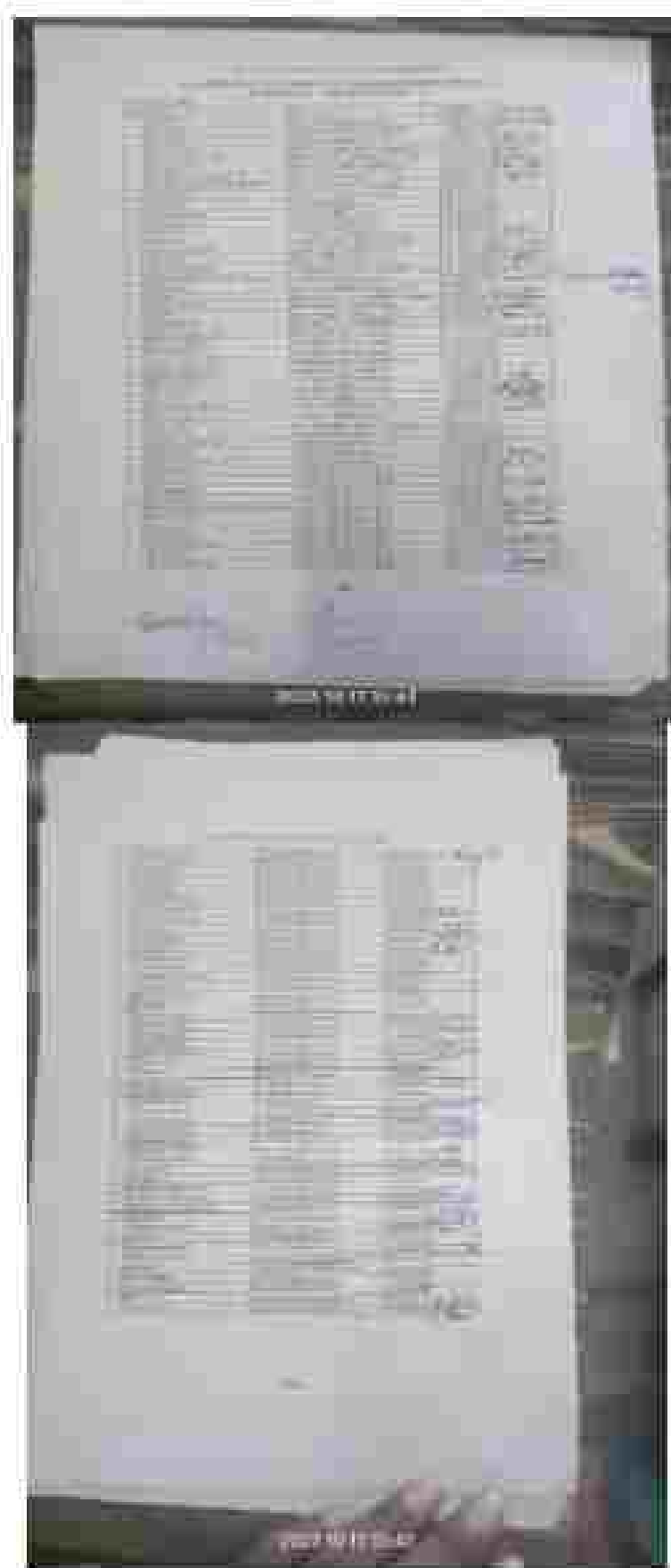
Teams were assessed based on the following criteria:

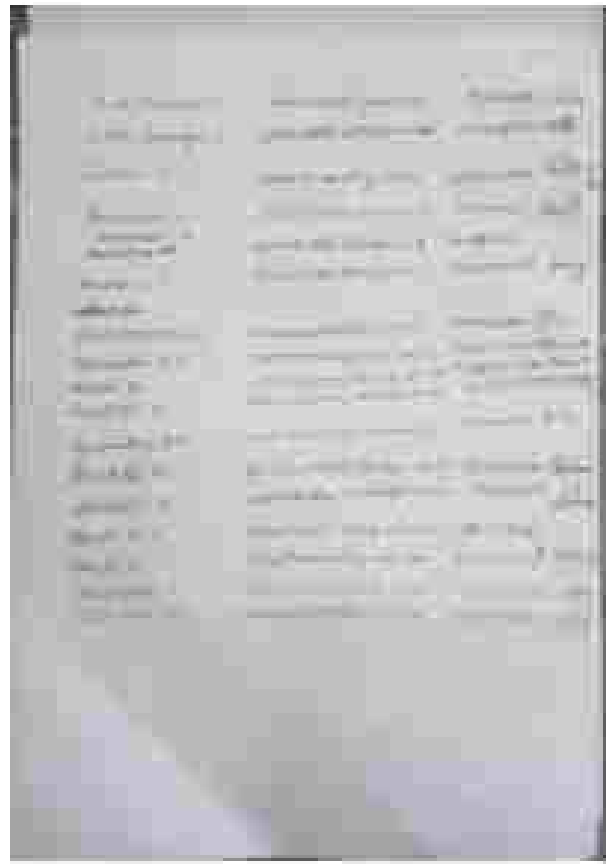
- Idea of the game
- Innovation of the solution.
- Time of implementation.
- Demonstration.

Flyer of the event :



Attendance sheet of the event:





SAMPLE QUESTION PAPER - ROUND 1:

**BY KONGRETS/IBMS COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
SPRINKLE IT**

YOUR NAME: _____

YOUR UENI/INSDS NUMBER: _____

SAMPLE QUESTIONS - 1

Q1) a)

1) Which is incorrect?

- a) A type of error condition
- b) A programming language
- c) A type of instruction
- d) A machine code

2) What is the maximum voltage that can be given to JFET?

- a) 10V
- b) 15V
- c) 20V
- d) 30V

3) What is the purpose of the delay() function in Arduino?

- a) To slow down the program execution
- b) To control the program execution
- c) To pause the program temporarily
- d) To stop a section of code

4) Which statement is used to create a comment in an Arduino sketch?

- a) // Comment
- b> /* Comment
- c) # Comment

Snapshots of the event :



Mr. Srintham Anbarasan and Mr. Karthik Suresh reviewing the answer sheets



Round 1: Participants solving the MCQ's

Round 2 Attendance Sheet:



Round 2 Evaluation Sheet:





Winners of the event

S.NO	POSITION	TEAM NAME	PARTICIPANTS NAME	COLLEGE NAME
1	Winner	Cyber Corps Elite	S Ashish	SVCE
			R Jagadish	
			K Ganesha	
			A S Ajay Kumar	
2	Runner Up	Red Cannon	Subam Sree G	SVCE
			Shanthi K	
			Stephanie M Olivia	
			Sahar S	

Report by:

Mr. PARVESH R. (III Year, BCE B)

Executive Member, IETE-SF

REPORT ON VENTURE VISION

Venture Vision was organized by the department of Electronics and Communication Engineering in association with the Electronics and Communication Engineers Association (ECEA), Institution of Electronics and Telecommunication Engineers Student Forum of SVCE (ISF SVCE) and Robotics and Artificial Intelligence Club (RAIC) as an event in Upagraha '23, ECE Department Symposium. Venture Vision was aimed at scouting for individuals with best pitching abilities. A total of 20 teams (80 students) registered for the event.

Commencement of the Event	October 11 th 2023 (11.00 AM IST)
End of the Event	October 11 th 2023 (3.00 PM IST)
Total Teams	20
Total Participants	80

The rules of the event were explained to all the participating teams by the event co-ordinators. Venture Vision consisted of two rounds; the first round required the teams to pitch a project idea specified to them. The teams were divided equally among a panel of 3 judges. Each team was given 5 minutes of preparation time and 5 minutes for presenting. The round lasted for about an hour. Out of 20 teams, 9 teams were selected for the second round, which was held from 1.45 PM. The second round required the team to pitch the allocated companies to the judges. Each team was judged based on 5 unique but necessary categories. After the panel of judges discussed amongst themselves, the winner and runner teams were announced. The event was concluded by 3.00 pm.

The event coordinators were Mr.Prabhu Dharshan R (III-year ECE-B), Mr Anish Krishnan (III-year ECE-A) and Ms Subasree S S (III Year ECE-C). The judges for the event were Dr.M.Bindhu, Associate professor, Mr.M.K.Varadarajan, Assistant professor and Mrs.C.Gomatheeswari Preethika, Assistant professor.

Flyer of the event:



Snapshots of the Event:



Teams pitching their product to Mrs. C. Geetha Lakshmi, Assistant Professor, ECE



Participants of the event



Teams pitching their product to Mr M.K. Varadraj, Assistant Professor, ECE

Evaluation Sheet:

Round-1

A Student Registration Form

SUCE RAIC

Sri Lanka University of Engineering and Technology

Faculty of Engineering, Rajapaksa Institute of Technology

Date: _____

Sl. No.	Name	Matriculation	Year		Semester		
			1	2	1	2	3
1	Prasanna, P.	2018	1	1	1	1	1
2	Prasanna, P.	2018	1	1	1	1	1
3	Prasanna, P.	2018	1	1	1	1	1
4	Prasanna, P.	2018	1	1	1	1	1

Year	2018	2019	2020	2021	2022	2023
Q1	10	12	15	18	20	22
Q2	15	18	20	22	25	28
Q3	20	22	25	28	30	32
Q4	25	28	30	32	35	38
Annual	70	80	90	100	110	120

Year	2018	2019	2020	2021	2022	2023
Q1	10	12	15	18	20	22
Q2	15	18	20	22	25	28
Q3	20	22	25	28	30	32
Q4	25	28	30	32	35	38
Annual	70	80	90	100	110	120

Year	2018	2019	2020	2021	2022	2023
Q1	10	12	15	18	20	22
Q2	15	18	20	22	25	28
Q3	20	22	25	28	30	32
Q4	25	28	30	32	35	38
Annual	70	80	90	100	110	120

No.	Sl. No.	Particulars	2018	2019	2020	2021	2022	2023
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No.	Sl. No.	Particulars	2018	2019	2020	2021	2022	2023
1	1	Balance b/d	100	100	100	100	100	100
2	2	By Cash	10	20	30	40	50	60
3	3	To Cash	20	30	40	50	60	70
4	4	Balance c/d	90	90	90	90	90	90

No.	Sl. No.	Particulars	2018	2019	2020	2021	2022	2023
1	1	Balance b/d	100	100	100	100	100	100
2	2	By Cash	10	20	30	40	50	60
3	3	To Cash	20	30	40	50	60	70
4	4	Balance c/d	90	90	90	90	90	90

Round 2:

Round-2



SACEI Small Business Administration

RAIC

Venture Vision Scoring Sheet

DATE: 10/27/23

Rank	Business Name	Entrepreneur	Age Group (20%)	Years in Biz (20%)	Net Revenue (20%)	Depth of Market (20%)	Market Expansion (20%)	Total Score
1	Adams	Rafael Diana Adams	1					1
2	Wagon	Walter Hanna Lorena Diana	3	6	9	9	8	45
3	Wagon	Stefania Lorena Diana	7	3	7	7	7	34
4	Wagon	William Lorena Diana						

Wagon [can't see] [can't see]



SACEI Small Business Administration

RAIC

Venture Vision Scoring Sheet

DATE: 10/27/23

Rank	Business Name	Entrepreneur	Age Group (20%)	Years in Biz (20%)	Net Revenue (20%)	Depth of Market (20%)	Market Expansion (20%)	Total Score
1	Wagon		5	10	5	10	5	35
2	Wagon		5	5	5	10	10	45
3	Wagon		4	1	8	6	6	35
4	Wagon		9	9	9	8	8	43

Wagon [can't see] [can't see]

Attendance Sheet of the event:

SUCE RAIT

Vertical Grid Identification Sheet

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Winners of the Event:

Place	Team Name	Members Name	College
1 st place	One-Hit Wonders	Vikash S K Srimathi R S Tamil Nilavan S Shabeel Irfan	Sri Venkateswara Collage of Engineering
2 nd place	Cracks	Karthikey Mishra Harish K P Jayanth J Kinuthaka V	R.M.K Engineering College

Report by:

Mr. ANISH KRISHNAN (III-Year, ECE-A)

Executive Member, ECEA

REPORT ON ALGORITHM ALCHEMY

Algorithm alchemy was conducted on 11th October 2023 between 11.30 AM & 3.15 PM. This event was a part of the national-level technical symposium Upagraha '23 conducted by the Electronics and Communication Engineering Department, SVCE. Algorithm Alchemy was a coding event conducted to check the understanding of basic coding skills of participants.

Commencement of the event	October 11 th 2023(11.30 AM IST)
End of the event	October 11 th 2023(3.15 PM IST)
Total teams	30
Total participants	60

The event consists of 2 rounds. The first round was MCQ which consisted of 14 questions, to sharpen problem-solving skills by hunting the bugs in pen-paper mode. Based on the scores, the top 10 teams were shortlisted for round 2, which takes to an online coding round in the Hacker Rank platform, which consists of 3 problem statements but there was a surprise twist of swapping the participants of the team, each for 10 mins and last 15 minutes both the participants were allowed to code together to solve the tasks. The judgment was made based on the points of the problem statements solved and viva scores.

Mrs. A. Raniya, Assistant professor, and Mrs.M.Kavitha, Assistant professor, were the judges for the event. The student coordinators for the event were: Ms.S Lathika, Shri, Ms.P.U Saambavi, Mr.S Kiran Sekar, and Mr.H.Raghu.

Flyer of the event



Snapshots of the event:



Round 1 Pen and paper mode



Sponsors from F22 evaluating the participants

Attendance sheet of the event:

F22 - 2022-23			
Sl. No.	Name of the Participant	Roll No.	Signature
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Date: _____
 Signature of the Organiser: _____
 Signature of the Sponsor: _____



Sample Questions from Round 1:

```
1) def find_average(nums):  
    total = 0  
    for num in nums:  
        total += num  
    average = total / len(nums)  
    return average
```

The above code is supposed to calculate the average of a list of numbers and print it. However, there is a bug in the code. Can you identify and fix it?

```
2)  
#include <iostream>  
using namespace std;  
int main()
```

```

{
int age;
cout << "Enter your age: ";
cin >> age;
if (age >= 18)
{
cout << "You are an adult." << endl;
}
else
{
cout << "You are a minor." << endl;
}
return 0;
}

```

```

3) #include <ostream>
using namespace std;
int main()
{
int n;
cout << "Enter a number: ";
cin >> n;
int factorial = 1;
for (int i = 1; i <= n; i++) {
factorial *= i;
}
cout << "Factorial of " << n << " is " << factorial << endl;
return 0;
}

```

```

4) def outer_function():
    x = 10
    def inner_function():
        x += 5

```

```

        return x
    result = inner_function()
    print("Result:", result)
outer_function()

```

Questions from Round 2

1) Two friends like to pool their money and go to the ice cream parlor. They always choose two distinct flavors and they spend all of their money. Given a list of prices for the flavors of ice cream, select the two that will cost all of the money they have.

Sample Input

```

STDIN      Function
-----
2          t = 2
4          k = 4
5          cost[] size n = 5
1 4 5 3 2  cost = [1, 4, 5, 3, 2]
4          k = 4
4          cost[] size n = 4
2 2 4 3    cost = [2, 2, 4, 3]

```

Sample Output

```

1 4
1 2

```

2) A weighted string is a string of lowercase English letters where each letter has a weight. Character weights are 1 to 26 shown below.

The weight of a string is the sum of the weights of its characters. For example, "A uniform string consists of a single character repeated zero or more times. For example, "ccc" and "a" are uniform strings, but "cb" and "cd" are not. Given a string, let be the set of weights for all possible uniform contiguous substrings of string. There will be queries to answer where each query consists of a single integer. Create a return array where for each query, the value is "Yes" if . Otherwise, append "No".

Working from left to right, weights that exist are:

```
string weight
a: 1
b: 2
bb: 4
c: 3
cc: 6
ccc: 9
d: 4
dd: 8
ddd: 12
dddd: 16
```

Now for each value in `arr`, see if it exists in the possible string weights. The return array is `['Yes', 'No', 'No', 'Yes', 'No']`.

Sample Input 0

```
abccddde
```

```
5
1
3
12
5
9
10
```

Sample Output 0

```
Yes
Yes
Yes
Yes
No
No
```

3) An arcade game player wants to climb to the top of the leaderboard and track their ranking. The game uses [Dense Ranking](#), so its leaderboard works like this:

- The player with the highest score is ranked number 1 on the leaderboard.
- Players who have equal scores receive the same ranking number, and the next player(s) receive the immediately following ranking number.

Example

```
Ranked= [100,90,90,80]
```

```
Player= [70,80,105]
```

The ranked players will have ranks 1, 2, 3 and 4 respectively.

Evaluation sheets:

Sl. No.	Team Name	Score	Ranking
1	PARTY SMASHERS	4-1	1
2	DED SEC	4-3	2

Winners of the event:

SL.NO	POSITION	TEAM NAME	PARTICIPANT NAME	COLLEGE
1	WINNER	PARTY SMASHERS	MADHUSUDHANAN K. JESWIN SWINTON J	SRI VENKATESWARA COLLEGE OF ENGINEERING
2	RUNNER	DED SEC	DHAYANIDHI R. S GOKUL NAMBAR R.	SRI VENKATESWARA COLLEGE OF ENGINEERING

Report by:

Ms LATHIKAA SHREES (III year, ECE-B)

Executive Member, ECEA

REPORT ON PROJECT EXPO

Project Expo was organized by the Department of Electronics and Communication Engineering as an event in Upagraha '23, ECE Department Symposium. Project Expo was aimed at scouting for the best projects that the students have come up with on their own. A total of 15 teams (50 students) registered for the event, out of which 5 teams were awarded.

Commencement of the event	October 11 th 2023 (10.30 AM IST)
End of the event	October 11 th 2023 (12.30 PM IST)
Total Teams	15 Teams
Total Participants	50

The event commenced at 10:30am and the participants were given time to setup their project for display and additional time was provided for making any improvisations. The panel of judges evaluated the participants based on the following criteria: novelty and innovation of the solution, quality of implementation, people impact and the quality of their presentation. A total of 15 teams consisting of 50 participants were evaluated. Out of these, 5 teams were scrutinized. The event was concluded by 12:30 pm.

The event coordinators were Mr. Umesh Anandh S (III-year ECE-C), Ms. Srivardhini S (III-year ECE-C) and Ms. Deepika S (III-year ECE-A).

The judges for the event were Dr. M. Athappan, Associate professor, Dr. A. Prasanth, Assistant professor, Mrs. K. S. Subhashini, Assistant professor, Mrs. S. Kalyani, Mrs. K. Srividhya, Assistant professor, Mr. Senthil Rajan, Assistant professor and Mrs. R. Kausalya, Assistant professor.

Flyer of the event:

SVCE SRINIVASA VEDIC COLLEGE OF ENGINEERING
UPAGRAHA '23
RAIC

PROJECT EXPO

EXECUTE WITH FINESSE

 **11/10/2023**

CONTACT:

Deepika S	+91 94459 49306
Srivarshini S	+91 91767 87996
Umesh Anandh S	+91 93848 43066

REGISTER HERE

Evaluation sheet:

No. of students
No. of teachers

Handwritten Report
Handwritten Report

Sl. No.	Name	Date	Handwritten Report					Total
			1	2	3	4	5	
1	Handwritten Report	Handwritten Report	4	4	4	4	4	20
2	Handwritten Report	Handwritten Report	4	4	4	4	4	20
3	Handwritten Report	Handwritten Report	4	4	4	4	4	20
4	Handwritten Report	Handwritten Report	4	4	4	4	4	20
5	Handwritten Report	Handwritten Report	4	4	4	4	4	20

Handwritten signature

Sl. No.	Name	Date	Handwritten Report					Total
			1	2	3	4	5	
1	Handwritten Report	Handwritten Report	4	4	4	4	4	20

Handwritten signature

Attendance sheet of the event:

MEMBERS ATTENDANCE SHEET - 14/01/2024

Sl. No.	Name	Attendance	Roll No.	Phone	Signature
1	Arjun	Present	1001	9876543210	[Signature]
2	Aravind	Present	1002	9876543210	[Signature]
3	Ashwin	Present	1003	9876543210	[Signature]
4	Ashok	Present	1004	9876543210	[Signature]
5	Ashok	Present	1005	9876543210	[Signature]
6	Ashok	Present	1006	9876543210	[Signature]
7	Ashok	Present	1007	9876543210	[Signature]
8	Ashok	Present	1008	9876543210	[Signature]
9	Ashok	Present	1009	9876543210	[Signature]
10	Ashok	Present	1010	9876543210	[Signature]
11	Ashok	Present	1011	9876543210	[Signature]
12	Ashok	Present	1012	9876543210	[Signature]
13	Ashok	Present	1013	9876543210	[Signature]
14	Ashok	Present	1014	9876543210	[Signature]
15	Ashok	Present	1015	9876543210	[Signature]
16	Ashok	Present	1016	9876543210	[Signature]
17	Ashok	Present	1017	9876543210	[Signature]
18	Ashok	Present	1018	9876543210	[Signature]
19	Ashok	Present	1019	9876543210	[Signature]
20	Ashok	Present	1020	9876543210	[Signature]

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No.	Year	Particulars	Debit	Credit	Balance
1	1900	1000	1000		1000
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7	1900	1000	1000		1000
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9	1900	1000	1000		1000
10	1900	1000	1000		1000
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41	1900	1000	1000		1000
42	1900	1000	1000		1000
43	1900	1000	1000		1000
44	1900	1000	1000		1000
45	1900	1000	1000		1000
46	1900	1000	1000		1000
47	1900	1000	1000		1000
48	1900	1000	1000		1000
49	1900	1000	1000		1000
50	1900	1000	1000		1000

Winners of the event:

PLACE	TEAM NAME	MEMBERS NAME	COLLEGE
1 ST PLACE	INNOVATIVE SPHERE	<ul style="list-style-type: none">• Sharven G S• Aaron Ranjith S• BalaKumaran T• Mouli Vignesh K	Jerusalem College of Engineering
2 ND PLACE	DEVICE DREAMERS	<ul style="list-style-type: none">• B. Shruthika• V. Sai Sruthi	Sri Venkateswara College of Engineering
3 RD PLACE	CYPHER ASSASINS	<ul style="list-style-type: none">• Madhav B• Subash V	Sri Venkateswara College of Engineering

Report by:

M. SRIVARSHINI S (III-Year, PCE-B)

Honorary Treasurer, IETE-SF

REPORT ON CONNECTIVERSE

Connectiverse was organized as a part of Upagraha'23 by the Department of Electronics and Communication Engineering. Connectiverse was organized to assess the participants' technical skills, logical reasoning, creativity, and problem-solving capabilities. The event consisted of three rounds. Connectiverse was conducted on 12th October 2023 between 9:00 AM & 12 PM.

Commencement of the event	October 12 th 2023 (9 AM IST)
End of the event	October 12 th 2023 (12 PM IST)
Total Teams	51
Total Participants	102

The judges for the event were Mr. S. P. Sivagnana Subramanian, Assistant Professor and Mrs. S. M. Athinaya, Assistant professor.

The event consisted of a total of 3 rounds and it commenced at 9 AM in CB531 and CB532. The rules and regulations were announced to the participants by the student coordinators.

The first round is rearranging letters, filling the crossword, and forming a word using the letters in the shaded boxes. As per the evaluation criteria, 18 teams were shortlisted for Round 2 which is a memory-based viva round. The further short listing enabled the best 7 teams to participate in the final round, which is a buzzer round called connections, participants had to find the technical words by connecting the pictures that were presented on the screen. The final judgment was made based on the number of words found by each team within the time limit.

The student coordinators for the event are Mr. Lok Ranjan P (III-year ECE-B) and Ms. P. U. Saambavi (III-year ECE-B).

Flyer of the event:



Snapshots of the event:



Snapshot of Round 1-Crossword



Round 2- Memory based quiz round



Round 3- Participants trying to find the words

Sample Question Paper for Round 1:

INSTITUTIONAL TRAINING FOR ENGINEERS
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ANNAMALAI

QUESTION

THREE MARKS SHORT ANSWER

COMMUNICATIONS MODULE 4

Explain with block diagram the basic principle of a Frequency Modulated (FM) system. Draw the block diagram of the basic FM transmitter and receiver.

ANSWER

1. Frequency Modulation (FM) is a type of modulation where the frequency of the carrier wave is varied in accordance with the amplitude of the message signal. The block diagram of a basic FM transmitter and receiver is shown below.

Transmitter: The transmitter consists of a message signal $m(t)$ and a carrier signal $c(t)$ entering a frequency modulator. The output of the modulator is a frequency modulated signal $f_m(t)$. This signal is then amplified by a power amplifier and transmitted through an antenna.

Receiver: The receiver consists of an antenna that receives the frequency modulated signal $f_m(t)$. This signal is then amplified by a power amplifier and fed into a frequency demodulator. The output of the demodulator is the message signal $m(t)$.

Question Paper for Round 2:

QUESTION

THREE MARKS SHORT ANSWER

Explain with block diagram the basic principle of a Frequency Modulated (FM) system. Draw the block diagram of the basic FM transmitter and receiver.

ANSWER

1. Frequency Modulation (FM) is a type of modulation where the frequency of the carrier wave is varied in accordance with the amplitude of the message signal. The block diagram of a basic FM transmitter and receiver is shown below.

Transmitter: The transmitter consists of a message signal $m(t)$ and a carrier signal $c(t)$ entering a frequency modulator. The output of the modulator is a frequency modulated signal $f_m(t)$. This signal is then amplified by a power amplifier and transmitted through an antenna.

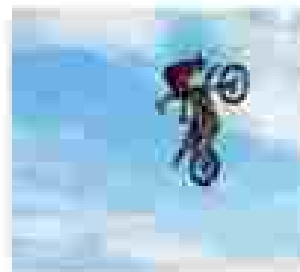
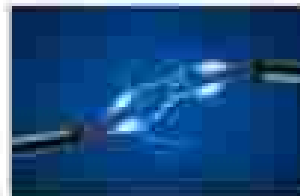
Receiver: The receiver consists of an antenna that receives the frequency modulated signal $f_m(t)$. This signal is then amplified by a power amplifier and fed into a frequency demodulator. The output of the demodulator is the message signal $m(t)$.

Sample Questions for Round 3:

Western Bridge



Collecting water



Attendance Sheet:

Round 1

Attendance sheet for Round 1

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Attendance sheet for Round 1

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Round 2

Item	Product	Item Number	Price	Quantity
1	Small 4x6	10000000	1.00	1000
2	Big 8x10	10000001	1.50	1000
3	Small 4x6	10000002	1.00	1000
4	Big 8x10	10000003	1.50	1000
5	Small 4x6	10000004	1.00	1000
6	Big 8x10	10000005	1.50	1000
7	Small 4x6	10000006	1.00	1000
8	Big 8x10	10000007	1.50	1000
9	Small 4x6	10000008	1.00	1000
10	Big 8x10	10000009	1.50	1000
11	Small 4x6	10000010	1.00	1000
12	Big 8x10	10000011	1.50	1000
13	Small 4x6	10000012	1.00	1000
14	Big 8x10	10000013	1.50	1000
15	Small 4x6	10000014	1.00	1000
16	Big 8x10	10000015	1.50	1000
17	Small 4x6	10000016	1.00	1000
18	Big 8x10	10000017	1.50	1000
19	Small 4x6	10000018	1.00	1000
20	Big 8x10	10000019	1.50	1000
21	Small 4x6	10000020	1.00	1000
22	Big 8x10	10000021	1.50	1000
23	Small 4x6	10000022	1.00	1000
24	Big 8x10	10000023	1.50	1000
25	Small 4x6	10000024	1.00	1000
26	Big 8x10	10000025	1.50	1000
27	Small 4x6	10000026	1.00	1000
28	Big 8x10	10000027	1.50	1000
29	Small 4x6	10000028	1.00	1000
30	Big 8x10	10000029	1.50	1000
31	Small 4x6	10000030	1.00	1000
32	Big 8x10	10000031	1.50	1000
33	Small 4x6	10000032	1.00	1000
34	Big 8x10	10000033	1.50	1000
35	Small 4x6	10000034	1.00	1000
36	Big 8x10	10000035	1.50	1000
37	Small 4x6	10000036	1.00	1000
38	Big 8x10	10000037	1.50	1000
39	Small 4x6	10000038	1.00	1000
40	Big 8x10	10000039	1.50	1000
41	Small 4x6	10000040	1.00	1000
42	Big 8x10	10000041	1.50	1000
43	Small 4x6	10000042	1.00	1000
44	Big 8x10	10000043	1.50	1000
45	Small 4x6	10000044	1.00	1000
46	Big 8x10	10000045	1.50	1000
47	Small 4x6	10000046	1.00	1000
48	Big 8x10	10000047	1.50	1000
49	Small 4x6	10000048	1.00	1000
50	Big 8x10	10000049	1.50	1000
51	Small 4x6	10000050	1.00	1000
52	Big 8x10	10000051	1.50	1000
53	Small 4x6	10000052	1.00	1000
54	Big 8x10	10000053	1.50	1000
55	Small 4x6	10000054	1.00	1000
56	Big 8x10	10000055	1.50	1000
57	Small 4x6	10000056	1.00	1000
58	Big 8x10	10000057	1.50	1000
59	Small 4x6	10000058	1.00	1000
60	Big 8x10	10000059	1.50	1000
61	Small 4x6	10000060	1.00	1000
62	Big 8x10	10000061	1.50	1000
63	Small 4x6	10000062	1.00	1000
64	Big 8x10	10000063	1.50	1000
65	Small 4x6	10000064	1.00	1000
66	Big 8x10	10000065	1.50	1000
67	Small 4x6	10000066	1.00	1000
68	Big 8x10	10000067	1.50	1000
69	Small 4x6	10000068	1.00	1000
70	Big 8x10	10000069	1.50	1000
71	Small 4x6	10000070	1.00	1000
72	Big 8x10	10000071	1.50	1000
73	Small 4x6	10000072	1.00	1000
74	Big 8x10	10000073	1.50	1000
75	Small 4x6	10000074	1.00	1000
76	Big 8x10	10000075	1.50	1000
77	Small 4x6	10000076	1.00	1000
78	Big 8x10	10000077	1.50	1000
79	Small 4x6	10000078	1.00	1000
80	Big 8x10	10000079	1.50	1000
81	Small 4x6	10000080	1.00	1000
82	Big 8x10	10000081	1.50	1000
83	Small 4x6	10000082	1.00	1000
84	Big 8x10	10000083	1.50	1000
85	Small 4x6	10000084	1.00	1000
86	Big 8x10	10000085	1.50	1000
87	Small 4x6	10000086	1.00	1000
88	Big 8x10	10000087	1.50	1000
89	Small 4x6	10000088	1.00	1000
90	Big 8x10	10000089	1.50	1000
91	Small 4x6	10000090	1.00	1000
92	Big 8x10	10000091	1.50	1000
93	Small 4x6	10000092	1.00	1000
94	Big 8x10	10000093	1.50	1000
95	Small 4x6	10000094	1.00	1000
96	Big 8x10	10000095	1.50	1000
97	Small 4x6	10000096	1.00	1000
98	Big 8x10	10000097	1.50	1000
99	Small 4x6	10000098	1.00	1000
100	Big 8x10	10000099	1.50	1000

Round 3

Item	Product	Item Number	Price	Quantity
1	Red Green 3	10000000	1.00	1000
2	Tom Green	10000001	1.50	1000
3	Inventor 3	10000002	1.00	1000
4	Smart Green	10000003	1.50	1000
5	Tauhelle	10000004	1.00	1000
6	Red eye	10000005	1.50	1000
7	Tauhelle	10000006	1.00	1000

Evaluation Sheet:

Round 2

COMMITTEE ON POLLING BOARDS
ROUND 2

SLNO	TEAM MEMBER	SCORE
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Round 3

COMMITTEE ON POLLING BOARDS
ROUND 3

SLNO	TEAM MEMBER	SCORE	...
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Winners of the Event:

Place	Team Name	College Name	Members
I Place	BLINDEYES	Sri Venkateswara College of Engineering	Ashwin R
			Aishay G
II Place	TACOBELLS	Sri Venkateswara College of Engineering	Saavika U
			R J Tanya

Report by:

Mr. LOKRANJAN P (III-year, ECE B)

Executive Member, ECEA

REPORT ON E-GADGET MARKETPLACE

E-Gadget Marketplace was conducted on 12th October 2023. This event was a part of the national-level symposium Upagraha'23 conducted by the Electronics and Communication Department, SVCE. E-Gadget Marketplace was a technical event conducted to check the understanding and application of Electronics devices and circuits among the students. A total of 32 students participated in the event.

Commencement of the event	October 12 th 2023 (9:00AM IST)
End of the event	October 12 th 2023 (3:00PM IST)
Total Teams	16
Total Participants	32 participants

The event consists of 2 rounds. The first round was MCQ based, in this round the teams will be given with a problem case where they would be given with various devices as choices, from which they would be instructed to choose one device to resolve the problem and should give a strong and detailed justification for the same choice, justification will be evaluated by judges. Based on their cut-off score in round 1, the top scorers were shortlisted for round 2.

In second round, a circuit design would be given to each team, and initially the teams would be provided with a capital value. The components required for the circuit will be provided but with a particular capital value. The teams should select the required and most economical components for their circuit and build, also execute to get the required output. Here both the capital value used and the time taken will be considered for the scoring. The judgment was done based on the score, time taken and time to complete the task.

Mrs. Mary Cynthia, Assistant professor, Mrs. S. M. Meeraabeen, Assistant professor and Mr. D. Sivanbarasan, Assistant professor, were the judges for the events. The student coordinators and mentors for the event were Mr. R. Nandhanan and Ms. S. Kavitha.

Flver of the event:

The poster features a dark blue background with a glowing circuit board pattern. At the top, there is a light blue banner containing the logos for SVCE (Sri Venkateswara Christian Engineering College), UPAGRAHA 23, and RAAC (Regional Association of Christian Engineers). The central focus is a white drone icon above the text "E-GADGET MARKETPLACE" in a large, glowing cyan font. Below this, the tagline "AUCT'EMI CRAFT'EMI SOLVE'EMI" is written in a smaller, glowing cyan font. A calendar icon is positioned to the left of the date "12/10/2023". At the bottom, a dark blue section contains the word "CONTACT:" in white, followed by the names and phone numbers of Kavitha S (+91 73058 58520) and Nandhanan R (+91 77085 01331).

SVCE Sri Venkateswara Christian Engineering College
UPAGRAHA 23
RAAC

**E-GADGET
MARKETPLACE**

AUCT'EMI CRAFT'EMI SOLVE'EMI

12/10/2023

CONTACT:

Kavitha S
+91 73058 58520

Nandhanan R
+91 77085 01331

Sl. No.	Name of the Participant	Roll No.	Grade	Score
1	Arjun	101	10	85
2	Arjun	102	10	85
3	Arjun	103	10	85
4	Arjun	104	10	85
5	Arjun	105	10	85
6	Arjun	106	10	85
7	Arjun	107	10	85
8	Arjun	108	10	85
9	Arjun	109	10	85
10	Arjun	110	10	85

Snapshots of the event:



Participants engaged in a quiz



Participants creating a device based on the requirements.



Participants describing connections to the event judges

Evaluation Sheet:

GENERAL INFORMATION					
NO.	NAME	ADDRESS	AGE	SEX	SCORE
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1. NAME OF THE PARTICIPANT
 2. ADDRESS OF THE PARTICIPANT
 3. AGE OF THE PARTICIPANT
 4. SEX OF THE PARTICIPANT
 5. SCORE OF THE PARTICIPANT

Sl. No.	Name	Roll No.	Grade	Branch	Year	Section
1	Divyanshu	190101010101	B.Tech	Electronics & Communication Engineering	1	A
2	Divyanshu	190101010102	B.Tech	Electronics & Communication Engineering	1	A
3	Divyanshu	190101010103	B.Tech	Electronics & Communication Engineering	1	A
4	Divyanshu	190101010104	B.Tech	Electronics & Communication Engineering	1	A
5	Divyanshu	190101010105	B.Tech	Electronics & Communication Engineering	1	A
6	Divyanshu	190101010106	B.Tech	Electronics & Communication Engineering	1	A
7	Divyanshu	190101010107	B.Tech	Electronics & Communication Engineering	1	A
8	Divyanshu	190101010108	B.Tech	Electronics & Communication Engineering	1	A
9	Divyanshu	190101010109	B.Tech	Electronics & Communication Engineering	1	A
10	Divyanshu	190101010110	B.Tech	Electronics & Communication Engineering	1	A
11	Divyanshu	190101010111	B.Tech	Electronics & Communication Engineering	1	A
12	Divyanshu	190101010112	B.Tech	Electronics & Communication Engineering	1	A
13	Divyanshu	190101010113	B.Tech	Electronics & Communication Engineering	1	A
14	Divyanshu	190101010114	B.Tech	Electronics & Communication Engineering	1	A
15	Divyanshu	190101010115	B.Tech	Electronics & Communication Engineering	1	A

1. 2nd semester M.Tech. *Divyanshu*
2. 1st year B.Tech. *Divyanshu*
3. 1st year B.Tech. *Divyanshu*

Question Paper for Round 1(MCQ):

SRI VENKATESWARA COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
UPAGRAHA '23

TEAM NAME:
TEAM LEAD MOBILE NUMBER:

E-GADGET MARKETPLACE
ROUND -I

SET-1

1. Question: In order to intricately synchronize two distinct operations within your circuit, which electronic component should you employ for the meticulous generation of time delays?

Choices:

- a) IC 4066
- b) Capacitor
- c) IC 555
- d) IC LED

2. Question: You are tasked with enhancing the strength of feeble electrical signals in your circuit design. Which electronic component should you strategically select for this purpose?

Choices:

- a) Op-amp
- b) Capacitor
- c) Rectifier
- d) Transformer

SRI VENKATESWARA COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

UPAGRAHA '23

TEAM NAME:

TEAM LEAD MOBILE NUMBER:

E-GADGET MARKETPLACE

ROUND -I

SET-T

1. Question: In the realm of your project, where the goal is to convey data across vast expanses without the constraints of wires, which electronic component stands as the signal emissary, orchestrating the symphony of wireless communication?

Choices:

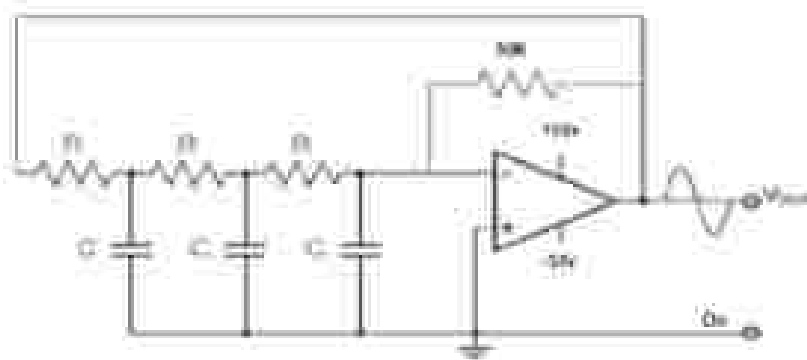
- a) Transmitter
- b) Capacitor
- c) Antenna
- d) Transistor

2. Question: In the realm of your project, where the pursuit is the exacting measurement of force, which electronic instrument should you employ as your precision maestro, conducting the delicate symphony of force measurement with finesse?

Choices:

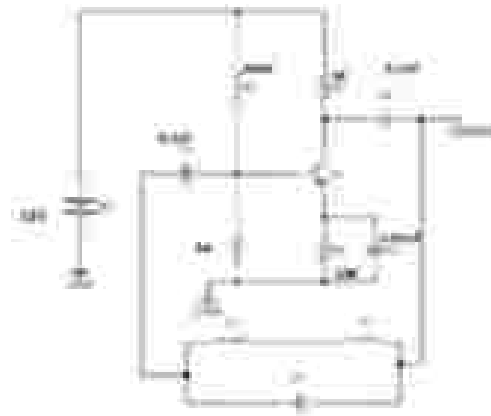
- a) Pressure sensor
- b) Heat sensor
- c) Weight sensor
- d) Temperature sensor

Circuit Design for Round 2:



Output:

Get a Sine wave at Output with 12V Amplitude at 5 Hz (see graph).



Output:

Get a Sine wave at Output with 20V Amplitude at 2 Hz (see graph).

Winners of the event:

S.N O	POSITION	TEAMNAME	PARTICIPANTSNAME	COLLEGE
1	WINNER	ELECTRICAL	R.GNANESWARAN S.ARAVEDIAN	Adhiparasakthi Engineering college, Malaruvathur
2	RUNNERUP	INCREDIBLES	HARIPRIYA J DHANUSHRI J	SVCE

Report By:

Mr.MANDHANAN R (III Year, ECE-B)

Mentor: RAIC

REPORT ON INTELLECT NEXUS

Intellect Nexus was organized by the Department of Electronics and Communication Engineering as an event in Upagraha 13, National level Technical Symposium. Intellect Nexus was aimed at scouting for the best research paper by the students. A total of 42 teams (102 students) registered for the event, out of which 30 teams (80 students) were shortlisted based on their paper's abstract that was submitted during registration process.

Commencement of the event	October 12 th 2023 (10.30 AM IST)
End of the event	October 12 th 2023 (12.30 PM IST)
Total Teams	42 Teams
Total Participants	102

The rules of the event were explained to all the participating teams by the event co-ordinators. Paper Presentation consisted of one straight forward round, where shortlisted teams were equally divided among 5 panels of judges, for evaluation. All the judges took around an hour to analyse their set of papers. Out of the 30 teams shortlisted, 3 teams were given prizes after the individual judgement was completed. For each paper, a total of 50 marks were awarded based on 3 unique but necessary categories which are presentation, novelty and viva. After the panel of judges discussed amongst themselves, the winner and runner teams were announced. The event was concluded by 12.30 pm.

The event coordinators were Mr Umash Anandh S (III-year ECE-C) and Mr Anish Krishnan (III-year ECE-A). The judges for the event were Dr. P. Jothilakshmi, Professor, A-HoD, Department of ECE, Dr. N. Kumarasaran, Professor, Dr. R. Gayathri, Professor, Dr. M. Athappan, Associate Professor and Dr. D. Menaka, Associate Professor.

Elver of the event:

The poster features a dark blue background with glowing molecular and circuit patterns. At the top, logos for SVCE, UPAGRAHA 23, and RAAC are displayed. The central text reads 'INTELLECT NEXUS' in large, white, block letters. Below this, a magnifying glass with a purple handle is positioned over a white line graph showing an upward trend. The text 'UNVEIL YOUR RESEARCH PROWESS!' is written in white, all-caps font. A calendar icon is followed by the date '12/10/2023'. At the bottom left, under the heading 'CONTACT:', the names and phone numbers of Umesh Anandh S and Anish Krishnan are listed. To the right, the text 'REGISTER HERE' is placed above a QR code.

SVCE UPAGRAHA 23 RAAC

INTELLECT NEXUS

UNVEIL YOUR RESEARCH PROWESS!

 12/10/2023

CONTACT:
Umesh Anandh S +91 93848 43066
Anish Krishnan +91 98840 16804

REGISTER HERE 

Snapshot of the event :



Team presenting their paper to Dr. P. Gayathri, Professor, ECE



Team presenting their paper to Dr. P. Jothilakshmi, Professor, ECE



Team presenting their paper to Dr. D. Manjula, Associate Professor, ECE

Sample Paper presented by one of the teams:

RADIO WAVES AND ITS MAJOR IMPACT BY COMMUNICATION

Dr. Anil Kumar, Bhubaneswar

Radio Waves

Radio waves refer to the electromagnetic waves that are transmitted across space just through air, or through free space (not contained along wires or in other transmission). The frequency of a wave is the number of oscillations per second, and the speed a wave is have a wavelength, which is based from speed/frequency. A radio wave is more efficiently radiated from a local antenna whose length is a suitable fraction of a wavelength, such as half wave, and propagation of radio waves is the best when the receiving antenna is also a suitable fraction of a wavelength. Oscillating that has positive electrical oscillations cut from the base of a transmission, and only change word quite, generating a high current of wavelength.

Radio Propagation

Radio propagation is the way radio waves travel or propagate when they are transmitted from one point to another and affected by the medium in which they travel and in particular the way they propagate around the Earth in various parts of the spectrum.

Factors affecting radio propagation

There are many factors that affect the way in which radio signals or radio waves propagate. These are determined by the

medium through which the radio waves travel and the various signals that may appear in the path. The properties of the path by which the radio signals will propagate govern the level and quality of the received signal.

Reflection, refraction and diffraction may occur. The received radio signal may also be a combination of several signals that have travelled by different paths. These may add together to produce constructive interference, or in addition to this the signals travelling via different paths may be delayed causing distortion of the received signal. It is therefore very important to know the likely radio propagation characteristics that are likely to occur.

There are many radio propagation scenarios in use. Often signals may travel by several means, radio waves travelling using the type of radio propagation interacting with another. However to build up an understanding of how a radio signal behaves in practice, it is necessary to have a good understanding of all the possible scenarios of radio propagation. By understanding these, the limitations can be better understood along with the performance of any radio communication system for use used.

How do radio waves carry information?

The basic principle is simple. At the end, a transmitter "modulates" or modulates messages by varying the amplitude or frequency of the wave – a bit like Morse code. At the other, a receiver tuned to the same wavelength picks up the signal and "demodulates" it back to the desired low-frequency image, etc., etc.

All wireless communication systems, from the basic remote control up to the satellite, are based on this principle, even though increasingly complex technologies are of course used to modify these electromagnetic signals, improve their quality, increase the amount of information or make transmitting easier.

We use radio waves to discuss every aspect of our daily lives. In the morning we get the latest news from an AM or FM radio broadcast to our radios; the television, mobile phone or pay-by-credit purchase throughout the day such as our coffee, depends on parking meters using NFC contactless technology; they enable us to check the suitability to use of an emergency service, fire brigade, ambulance; and they also enable essential objects to communicate thanks to common devices such as Wi-Fi, Bluetooth, LoRa, ZigBee... and of course internet and professional communication. They have become indispensable.

An Antenna Type

An antenna with a parabolic shape that concentrates electromagnetic waves, such as radio waves, microwaves, or satellite signals, onto a single point is referred to as a parabolic antenna, also known as a parabolic reflector. Highly focused and directional signal reception or transmission is made possible by this design. Due to their capacity to capture and transmit signals with high gain and high directivity, parabolic antennas are frequently used in applications like satellite communication, microwave links, and radio telescopes.

History of an Antenna

The first radio antenna were built by Heinrich Hertz, a professor at the Technical Institute in Karlsruhe, Germany. Heinrich Hertz's combined half-wave dipole transmitting antenna and resonant half-wave receiving loop operating at 1.9 m in 1888.

Antenna

An antenna (or aerial) is an electrical device which converts electric power into radio waves, and vice versa. It is usually used with a radio transmitter or radio receiver. In transmission, a radio transmitter supplies an oscillating radio frequency (RF) electric current to the antenna's terminals, and the antenna radiates the energy from the current as electromagnetic waves (radio waves). Antennas are not electronic eyes and ears on the world.

Walkie-Talkie

A walkie-talkie is a portable, hand-held two-way radio transmitter. Its invention during World War II has previously been attributed to Donald Hings. Motorola engineering team, radio engineer Alfred J. Gross, and Henry Magnuski. Similar versions were usually made for military, field military, and rail groups, and after the war, walkie-talkies were utilized for public safety, then for business and consumer use work.

All radios require batteries to function, but every radio is fitted with a full battery indicator. To use a radio, first check it to be sure it is the country or the world and select "Device Option" to open a control panel window. Here you can set information about the radio's specifications and current settings: power, 1 or 2 W, transmission rate, battery, adjust the volume, add or delete frequencies for quickly locating away the radio, and select and set preset frequencies.

Walkie-Talkies are two-way radios and will transmit and receive radio at a distance. "Voice" includes both the Shout command and to draw another's attention, and the message is recognized. This can be prevented in the transmitting radio by using the mic. The reproduction will be clear to nearby players and unclear if the receiving radio is using an audio otherwise, it will make sense in the situation depending on the volume setting.

The obvious use of this is for communication in multiplayer games that

have shared global chat, but it can also provide a single-player tactic allowing you to talk to three friends where you want them. Then a radio system, power it on, and turn it to a given frequency. Make sure it has its mic mute, and pump up the volume. Then use a portable two-way to the same frequency, go to anywhere else within the community's range, and talk. Nearby members should recognize as the receiving radio when you can make them, when there from a nearby, or—if you feel especially daring—from a distance.

It is a good idea to use the Automated Emergency Broadcast System (AEB) radio station, which is redundant every game. The global you then use some car radio and listen to the AEB, usually, anywhere. Alternatively, notice in vehicles can be used to the AEB for more mobile listening. The AEB is important to listen to for the following event and improve yourself.

Development

The idea of walkie-talkies did not get much interest until the war started in 1939. After a few years, the Germans were had improved them so that the army could use them. There were also military and tank versions.[1] The British, Germans, and Americans all had their own systems.

Motorola also produced the hand-held AM SCR-300 radio during World War II, and it was called the "walkie-talkie" (WT).[2] The term now is frequently used today.

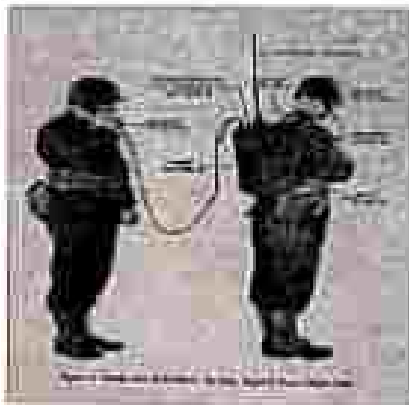
First:

- The first mobile communication devices were two-way radios.
- The first mobile radio had a suitcase-like size.
- As space, two-way radios are used for communication.
- Technically, just as if you are on a two-way radio.

Range, Reliability:

A larger antenna, a stronger battery, or a repeater can all extend the range of a basic long-range walkie-talkie's coverage by up to 1.5 miles. In ideal circumstances, a long-range walkie-talkie can travel up to 60 miles with the aid of these extra accessories.

Walkie-talkies are more dependable in locations with poor reception because they don't require cellular networks. Additionally, the lifespan of walkie-talkies are made to last 40 to 50 months.



Components:

Walkie-talkies work by using radio waves to transmit and receive radio messages between two or more devices. Here's a simplified explanation of how they work:

1. **Microphone:** When you speak into the walkie-talkie, a microphone converts the sound into electrical signals.

2. **Transmitter:** These electrical signals are then sent to a transmitter, which encodes the radio into radio waves. The transmitter modulates the radio waves to match a specific frequency within the radio spectrum.

3. **Antenna:** The modulated radio waves are captured through the walkie-talkie's antenna. The antenna captures the radio waves and sends it.

4. **Receiver:** On the other walkie-talkie, there is a receiver with its own antenna. It picks up the radio waves transmitted by the first walkie-talkie.

5. **Demodulation:** The receiver demodulates the received radio waves, extracting the encoded radio signal.

6. **Speaker:** The radio signal is then sent to a speaker, which converts it back into sound that you can hear.

Depending on the power and frequency of the devices as well as any obstructions in the environment, this two-way communication process enables people using walkie-talkies to talk to each other in real-time over a limited range. Walkie-talkies are popular in many different industries, including public safety, construction, and indoor activities. They are frequently used for short-range, point-to-point communication.

Related Devices and Alternatives

- ALO
- ADIA Small Talk
- Zoom
- Two Way Walkie Talkie
- Hey!Tel
- FocAnywhere
- March.PTT
- PositionPTT

Comparison of Walkie Talkie with Phones

There is no doubt that smartphones have changed the way we go about our lives. But, in many situations, they aren't the only communication option, and modern walkie-talkies are more than a match for them.

In this section, we look at various aspects of how the two methods compare in a head-to-head comparison.

1. Ease of use

It is easy to just say that walkie-talkies are simpler to use than mobile phones and leave it at that. After all, to communicate with a walkie-talkie is simply a matter of pressing a button and talking, whereas with a phone, you need to unlock it, pull up the right app, open your contacts, dial etc.

But the ease of use that a walkie-talkie offers runs deeper than just this. While this simplicity is the foundation of an efficient communication system, the benefits of one-click communication can be a game-changer.

One-to-many communication – While to one degree or another, a mobile solution can offer limited one-to-many functions, this is not achievable without software and technical know-how on the part of the user. Walkie-talkies make this process as simple as pressing that moment button.

Simple to setup – Imagine a large team scenario when a new team member is introduced. If it's a company mobile phone, then a new phone will need to be set up from scratch with all the necessary software, contacts etc.

If they use their own phone, then most of the necessary steps will still be required. With a walkie-talkie solution, you simply hand them their radio, and the job's done!

Greater efficiency – Unlike mobile phones, which have a large range of functions, walkie-talkies are designed with one goal in mind – To make communication as efficient and simple as possible. In situations where communication is essential and reliable, walkie-talkies are the most efficient solution.

2. Operating facilities

Mobile phones are restricted by the necessity to be within range of a cell phone mast. This means that in many places where communication is of the highest importance, a mobile phone may be your enemy.

Road and motor ways, airports, railway, power cuts, all these factors can stop a mobile phone from working, just when it's most in the need.

Compare this against walkie-talkies – Two-way radios are inherently more robust than their mobile phone counterparts, as long as you are within range of your base station, a walkie-talkie works regardless of the location.

3. Cost

When comparing the two devices, the walkie-talkie option comes out as the clear winner in two distinct areas.

Purchase cost – It doesn't matter whether you draw a comparison between the cost of

the cheap models or entry-level models, a walkie-talkie solution will always come out as the cheaper option.

There is also what you get for your money. A cheap smartphone will undoubtedly outperform and be a better source of distraction than even the best walkie talker will still provide instant and crystal-clear communication.

Ongoing costs – There are no contracts, no data or roaming charges, and no call charges with two-way radios. Once the radios are purchased, that's the end of the costs.

4. Reliability

Whether we are talking about using these devices as a way of keeping in touch with the kids as they romp out in the garden, industrial activities, or anything in between, when it comes to reliability, walkie-talkies are the hands-down winner.

We all know that smartphones are delicate, but look at them wrong, and the screen can shatter. Two-way radios are none of these are designed to be all but indestructible for surviving and functioning in the harshest of circumstances. The very best walkie-talkies are far more rugged than smartphones.

5. Battery life

Another area where call phones don't even come in with battery life. Even a good smartphone will choke through its battery

ness with light usage. On a busy day, it conceivably might just limp through a workday without needing to be recharged.

On average, a good set of walkie-talkies will have double the battery life of a mobile phone, and even cheaper sets will easily outperform a mobile phone.

6. Safety features

Even if we look at some of the advantages of walkie-talkies that we have already covered, you can see how walkie-talkies are the clear winner when it comes to safety. Instant and crystal-clear communication without the need even for a mobile signal tower in safety-critical situations—two-way radios are the clear winner.

But that's not all: before we have considered the safety features that many two-way radio models include. Amongst these are: transmission functions, one-touch functions, and emergency broadcast buttons.

This makes them ideal as a safety tool for many business applications, but also for hiking, angling, and outdoor sports like mountain biking.

The Conclusion

When we draw a direct comparison between two-way radios and mobile phones in scenarios where both can provide a service

Radio Waves Impact on Military

Despite the challenges the military faces, there are still opportunities in radio technology. The military is always looking for new ways to improve its communications systems. This includes developing new radios, improving existing radios, and finding new ways to use radio waves.

One area that the military is currently exploring is using Radio Frequency systems secondary spectrum.

High-performance radio frequency systems are essential for the military. They enable soldiers to communicate with one another and coordinate their efforts in the field. However, these systems are also very expensive.

A way to reduce costs is to allow the public sector to access these systems. This would enable businesses and other organizations to use them for their own purposes, which would, in turn, help to reduce the cost of these systems for the military.

There are a number of benefits that would come from this arrangement, including increased competition and innovation in the development of these systems. In addition, it would allow the military to focus on its core mission rather than having to worry about managing and regulating these systems. Ultimately, this could lead to better outcomes for both the military and the public sector.

Radiation Pattern of Parabolic Antenna

The radiation pattern of a parabolic antenna consists of a major lobe, which is directed along the axis of propagation, and several small minor lobes. Very narrow beams are possible with this type of reflector.

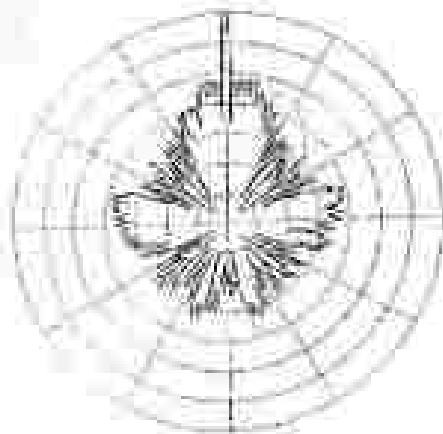
The gain G of an antenna with parabolic reflector can be determined as follows:

$$G = 10 \log_{10} \eta A_e / \lambda^2$$

η = Aperture efficiency

A_e = beam width in azimuth angle

θ_{E1} = beam width in elevation angle



Ships and Aircraft

Radio waves play a crucial role in both ships and aircraft for communication, navigation, and safety purposes. Here are some common uses:

Communication: Radio waves are used for voice and data communication between

ships and aircraft and with ground-based stations. This includes air traffic control, maritime VHF radios, and aviation communication systems like VHF and HF radios.

Navigation: Radio waves are essential for navigation systems, including the Global Positioning System (GPS). GPS relies on signals from satellites to determine the precise location and speed of ships and aircraft.

Weather Information: Radio waves are used to broadcast weather information and updates to ships and aircraft. This information is vital for safe navigation and flight planning.

Emergency Communication: Ships and aircraft use emergency beacons that transmit radio signals to indicate distress situations. Search and rescue operations rely on these signals to locate and assist vessels or aircraft in distress.

Radio Systems: Radio waves are the basis for radio systems, which are used for collision avoidance, weather monitoring, and navigation in both ships and aircraft. Radar beams detect obstacles and other vessels or aircraft in the vicinity.



Radio Direction Finding: Ships and aircraft use radio direction-finding equipment to determine the direction of radio signals. This is particularly useful for locating the source of distress signals or interference.

2. <https://www.encyclopedia.com/science/technology-and-applications/radio-technology>

3. <https://www.encyclopedia.com/science/technology-and-applications/radio-technology>

Wireless Communication: Modern ships and aircraft radio waves are used for various modern wireless communication systems, including Wi-Fi for passengers, crew, and internal communication.

In summary, radio waves are integral to the safe and efficient operation of ships and aircraft, providing essential services for communication, navigation, safety, and weather monitoring.

References

1. "The Art of Radiotelegraphy" by William G. Bennett
2. "Waves Talk: Communication at Sea" by James Roberts
3. "The Radio Amateur's Handbook" by ARRL
4. "Radio Wave Propagation and Practical Aspects" by John Doolittle
5. "Radio Control for Model Ships, Boats, and Aircraft" by Malcolm McPherson

Links

1. <https://www.encyclopedia.com/science/technology-and-applications/radio-technology>

Evaluation sheet :

Dr. P. Prabhakar

GOVERNMENT COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
SEMESTER II
ANALOG INTEGRATED EVALUATION SHEET

Sl. No.	NAME	MARKS OBTAINED	THEORY	PRACTICE	TOTAL	GRADE
	Tushar Sapre	Question No. 14 Diagramm 15 Diagramm 15	12	12	15	39
	Vinay Kumar Tilak	Q. Solution P. Diagramm 15	10	10	10	30
	Shreyas	Question No. 14 Diagramm 15 Diagramm 15 Diagramm 15	12	15	15	42

	Pratik Kumar Soni	Question 14 Diagramm 15 Diagramm 15	12	10	10	32
	Arjun Kumar		10	10	10	30
	Arjun Kumar		10	5	10	25

Dr. P. Prabhakar
Department of Electronics and Communication Engineering

Attendance sheet of the event:

SACE RAIC
Collection Attendance Sheet Date: _____

Sl. No.	Participant Name	Roll Number	Class	Section	Attendance
1
2
3
4
5
6
7
8
9
10

11
12
13
14
15
16
17
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19
20

NO	NAME	ADDRESS	TELEPHONE	DATE	REMARKS
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2
3
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5
6
7
8
9
10
11
12

NO	NAME	ADDRESS	TELEPHONE	DATE	REMARKS
1
2
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10
11
12

11. Duplex Classroom Analysis Sheet 1/1

Name: _____
 Address: _____
 Telephone: _____

Winners of the event :

PLACE	TEAM NAME	MEMBERS NAME	COLLEGE
1 ST PLACE	AGRI_WIZARDS	Vaishnavi S Niveditha S	Sri Sairam Engineering College
2 ND PLACE	DEFENDERS	Dharshini B.S E Divya Dharshini M.Devadarshini Dhanashree S	R.M.K Engineering College
3 RD PLACE	SHYENA	Nandhitha B S Saivaraha Krithika G	Sri Sairam Institute of Technology

Report by:

Mr UMESH ANANDH S (III-Year, ECE-C)

Executive member, IETE-SF

REPORT OF TECH-CPR

Tech-CPR was organized as a part of Upagraha 23 by the Department of Electronics and Communication Engineering.

The event was aimed towards bringing out the technical skills of the participants and also to check their ability of completing a task in the timeframe provided. A total of 35 teams (70 students) participated in the event.

Commencement of the event	October 12th 2023 (9:30 A.MIST)
End of the Event	October 12th 2023 (12:00 P.MIST)
Total Teams	35
Total Participants	70

The judges for the event were Mr P Arul, Assistant professor, Mr N Sabuch, Assistant professor and Mr P Muthukumaran, Assistant professor.

The event consisted of a total of 2 rounds and it commenced at 9:30AM in CB531 and 332. The rules and regulations were announced to the participants by the student coordinators. The round 1 was a MCQ round in which the questions were based on logical reasoning and brain teasers. The duration of the first round was for 30 minutes.

Out of the total 35 teams, 8 teams were shortlisted based on their scores and were qualified to the second round. In the second round, participants were expected not only to identify computer faults but also to handle additional tasks that will be revealed spontaneously. The winner was determined by their ability to complete these tasks within the specified time limit.

The event coordinators were Mr K Udhaya (III-year ECE-C), Mr R B Anushay (IV-year ECE-A), Ms S Srivashini (III-year ECE-C) and Ms S S Subasree (III-year ECE-C).

Flyer of the event:

SVCE SRI VENKATESWARA COLLEGE OF ENGINEERING

UPAGRAHA '23

RAIC

SRI VENKATESWARA COLLEGE OF ENGINEERING
in association with
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
presents

TECH CPR

A PC REPAIRING EVENT

Give the PCs a second chance to live!!!

Attendance sheet of the event:

  SVCE RAIC			<input type="checkbox"/>
Tech camp			
Year level	Name	Phone number	Parent
11th year	Abhishek	9845678901	
	Adarsh	9845678902	
12th year	Adarsh	9845678903	
	Adarsh	9845678904	
13th year	Adarsh	9845678905	
	Adarsh	9845678906	
14th year	Adarsh	9845678907	
	Adarsh	9845678908	
15th year	Adarsh	9845678909	
	Adarsh	9845678910	
16th year	Adarsh	9845678911	
	Adarsh	9845678912	
17th year	Adarsh	9845678913	
	Adarsh	9845678914	
18th year	Adarsh	9845678915	
	Adarsh	9845678916	
19th year	Adarsh	9845678917	
	Adarsh	9845678918	
20th year	Adarsh	9845678919	
	Adarsh	9845678920	

21st year	Adarsh	9845678921	
	Adarsh	9845678922	
22nd year	Adarsh	9845678923	
	Adarsh	9845678924	
23rd year	Adarsh	9845678925	
	Adarsh	9845678926	
24th year	Adarsh	9845678927	
	Adarsh	9845678928	
25th year	Adarsh	9845678929	
	Adarsh	9845678930	
26th year	Adarsh	9845678931	
	Adarsh	9845678932	
27th year	Adarsh	9845678933	
	Adarsh	9845678934	
28th year	Adarsh	9845678935	
	Adarsh	9845678936	
29th year	Adarsh	9845678937	
	Adarsh	9845678938	
30th year	Adarsh	9845678939	
	Adarsh	9845678940	

1. PROBLEM STATEMENT	Identify the problem to be solved	Understand the requirements and constraints	Define the scope of the project
2. ANALYSIS	Break down the problem into smaller parts	Identify the key components and their interactions	Develop a high-level design or architecture
3. DESIGN	Develop a detailed design plan	Specify the hardware and software requirements	Create a prototype or mockup
4. IMPLEMENTATION	Build the system according to the design	Write the code and configure the hardware	Test the system and debug any issues
5. EVALUATION	Assess the performance of the system	Compare the results against the requirements	Identify areas for improvement and optimization
6. CONCLUSION	Summarize the findings and conclusions	Discuss the limitations and future work	Present the results to the audience

Snapshots of the event:



Participants rectifying the fruit in the computer system



Debugging die errors in the CPU

Question paper for round 1 (MCQ):

1. Question: Which component of a computer is responsible for storing data in a long term, non-volatile fashion?

- a) CPU
- b) RAM
- c) Hard Disk Drive (HDD)
- d) SSD (Solid State Drive)

2. Question: What is a race condition in concurrent programming?

- a) A condition where two threads compete to access shared resources simultaneously, leading to unpredictable behaviour
- b) A situation where multiple threads cooperate perfectly to complete a task
- c) A deadlock situation in which all threads are stuck waiting for each other
- d) A condition where a program runs without any synchronization issues

3. What is the first step you should take when troubleshooting a computer that won't turn on?

- a) Check the monitor
- b) Reinstall the operating system
- c) Verify the power source and connections
- d) replace the motherboard

4. Which of the following tools is commonly used to check the voltage output of a power supply unit (PSU)?

- a) Multimeter
- b) Screwdriver
- c) Powermeter
- d) Tweezers

Evaluation sheet:

WINNERS
CONSOLE CHALLENGE

S.NO	Team Name	Rank		Score	Remarks
		1st	2nd		
1	Don't Know Techies	1	11	100%	1st Place
2	Duo of Darkness	2	10	90%	2nd Place
3	Team 101	3	9	80%	3rd Place
4	Team 202	4	8	70%	4th Place
5	Team 303	5	7	60%	5th Place
6	Team 404	6	6	50%	6th Place
7	Team 505	7	5	40%	7th Place
8	Team 606	8	4	30%	8th Place
9	Team 707	9	3	20%	9th Place
10	Team 808	10	2	10%	10th Place
11	Team 909	11	1	0%	11th Place
12	Team 1010	12	0	0%	12th Place

Signature
Date

Winners of the event :

PLACE	TEAM NAME	MEMBERS NAME	COLLEGE
1 ST PLACE	DON'TKNOW TECHIES	P.MEENALOSHINI R.PRAVEEN KUMAR	Sri Venkateswara College of Engineering
2 ND PLACE	DUO OF DARKNESS	R.S.ADITYA VARDHAN G.S.HARESH KRISHNA	Sri Venkateswara College of Engineering

Report by:

Mr. KUDHAYA (III YEAR ECE C)

Executive Member, ECEA

REPORT ON BITFLOW

BitFlow was organized as a part of Upagraha'23 by the department of Electronics and Communication Engineering. Bitflow was aimed at putting the participants to experience the logic behind every digital circuit and was given a chance to design a logic circuit with the circuit simulator we provided (LogiSim Evolution). A total of 50 teams (103 students) participated in round 1 (MCQ) of the event and out of which 6 teams were shortlisted for round 2 based on their performance in round 1.

Commencement of the event	October 12 th 2023 (10:30 AM IST)
End of the event	October 12 th 2023 (3 PM IST)
Total teams	50
Total participants	103

The judges for the event were Mrs.E.Sarala, Assistant professor, Mr. L.K. Balaji Vignesh, Assistant professor and Dr.R.Priyadharshini, Assistant professor.

The event coordinators for the event were Mr.Ram Sathappan A (III Year ECE-B), Mr.Dharani A (III Year ECE-A), and Mr.Prabhu R. (III Year ECE-B).

The event commenced at 10:30 AM and the participants were given the question (MCQ type) paper for Round 1. A total of 50 teams consisting 103 participants were enthusiastically solving the questions and the Round 1 got over by 11:00 AM. The top 6 teams were selected for Round 2 of the event based on their performance in the MCQ question paper. Round 2 commenced at 2:00 PM and the participants were introduced to the simulation software (LogiSim-Evolution). The participants were given questions for designing the digital circuits in the simulator. The participants tried their best to provide an optimal solution for the problem they were given in the given amount of time. The evaluation was done by the judges and out of 6 teams, a winner and a runner were chosen based on their understanding, solution, successful execution and viva. The winner and runner were announced in the valedictory event.

Flyer of the event :

SVCE SVKM'S VIT VELLORE CAMPUS **UPAGRAHA '23** **RMC**

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BITFLOW

FROM BITS TO BRILLIANCE

 **12/10/2023**

CONTACT:

Ram Srimppan A
9514290441

Prabhu Dharsan R
9385578070

Snapshots of the event:



Participants solving questions during round 1



Participants solving problems during round 2

Attendance sheet of the event:

No.	Name	Department	Signature
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 6. Co-organized by: _____
 7. Guest of honor: _____
 8. Inauguration by: _____
 9. Chief guest: _____
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 99. Chief guest: _____
 100. Guest of honor: _____



Round 1 MCQ sample questions:

1. What is a Gray code, and how is it different from binary code in digital design?
 - A. A Gray code is a code used for error correction.
 - B. Gray code is synonymous with binary code.
 - C. Gray code is a non-weighted code with only one bit changing at a time.
 - D. Gray code is used exclusively in analog circuits.
 - E.
2. Explain the concept of "edge-triggered" and "level-triggered" flip-flops in digital circuits.
 - A. Edge-triggered flip-flops respond to both rising and falling edges of a clock signal.
 - B. Level-triggered flip-flops respond to a continuous HIGH or LOW level on the clock.
 - C. Edge-triggered flip-flops have no clock input.
 - D. Level-triggered flip-flops have multiple clock inputs.
3. What is the purpose of a PAL (Programmable Array Logic) device in digital design?
 - A. To store data temporarily.
 - B. To perform arithmetic operations.
 - C. To generate clock signals.
 - D. To implement custom combinational logic functions.
4. Explain the concept of "asynchronous reset" and "synchronous reset" in flip-flops.
 - A. An asynchronous reset is controlled by a clock signal, while a synchronous reset is not.
 - B. An asynchronous reset is not controlled by a clock signal, while a synchronous reset is.
 - C. Both asynchronous and synchronous resets are the same.
 - D. Reset is not a feature of flip-flops.
5. What is a hazard in digital circuit design, and how can it be resolved?
 - A. A hazard is a bug in the circuit that cannot be resolved.
 - B. A hazard is an unintended transition in the output of a combinational circuit. It can be resolved using hazard detection and elimination techniques.
 - C. A hazard is a safety feature in digital circuits.
 - D. Hazards can only be resolved through trial and error.
6. What is the difference between a "combinational delay" and a "propagation delay" in digital circuits?
 - A. They refer to the same thing.
 - B. Combinational delay is the time taken for signals to traverse combinational logic, while propagation delay is the time taken for signals to travel through flip-flops.

- C. Combinatorial delay is the time taken for signals to travel through flip-flops, while propagation delay is the time taken for signals to traverse combinational logic.
- D. They are unrelated to digital circuit design.

7. What is the purpose of a multiplexer (MUX) in a digital design and how is it different from a demultiplexer (DEMUX)?

- A. A MUX selects one input from multiple sources, while a DEMUX takes one input and distributes it to multiple outputs.
- B. A MUX and a DEMUX are the same thing.
- C. A MUX takes one input and distributes it to multiple outputs, while a DEMUX selects one input from multiple sources.
- D. Both MUX and DEMUX are used for data storage.

8. What is a carry-ripple adder, and what are its limitations in digital circuit design?

- A. A carry-ripple adder is a type of adder that can handle any number of inputs.
- B. A carry-ripple adder is the fastest type of adder.
- C. A carry-ripple adder is a simple adder with a delay that increases with the number of bits, making it slow for large inputs.
- D. A carry-ripple adder has no limitations.

9. What is the concept of "fan-out" and "fan-in" in digital circuit design, and why are they important?

- A. Fan-out is the number of inputs a gate can accept, while fan-in is the number of gates a signal can drive. Proper fan-out and fan-in values are essential for circuit reliability and speed.
- B. Fan-out is the number of gates a signal can drive, while fan-in is the number of inputs a gate can accept. Proper fan-out and fan-in values are irrelevant in circuit design.
- C. Fan-out and fan-in have the same meaning in digital design.
- D. Fan-out and fan-in are not relevant concepts in digital circuit design.

10. In digital design, what is the significance of the race condition, and how can it be avoided?

- A. A race condition occurs when two signals arrive simultaneously at a flip-flop, causing unpredictable behavior. It can be avoided by proper circuit design and synchronization techniques.
- B. A race condition is a desirable feature in digital circuits.
- C. Race conditions cannot be avoided.

Round 2 sample questions:

Q1. Ajan wants to design a transmitter which masks its data with periodic sequence of codes as given below. For example lets assume "10000" as the data to be sent.

Data	Sequence Code	Masking	Masked Data
1	0	100	0
2	1	101	2
3	0	100	1
4	1	101	0
5	0	100	0
6	1	101	0
7	0	100	0
8	1	101	0

Your task is to help him build a circuit that generates the sequence codes on every clock pulse as given in the table.

Q2. Rohit is building a 8 bit processor's ALU and he needs to design a digital circuit which can store 3-bit binary data and also is capable of multiplying the data present by a factor of 2. The digital circuit should have the following inputs and outputs. The data present should not be lost upon continuous multiplication.

Inputs:

load - Signal to load the data on next clock pulse

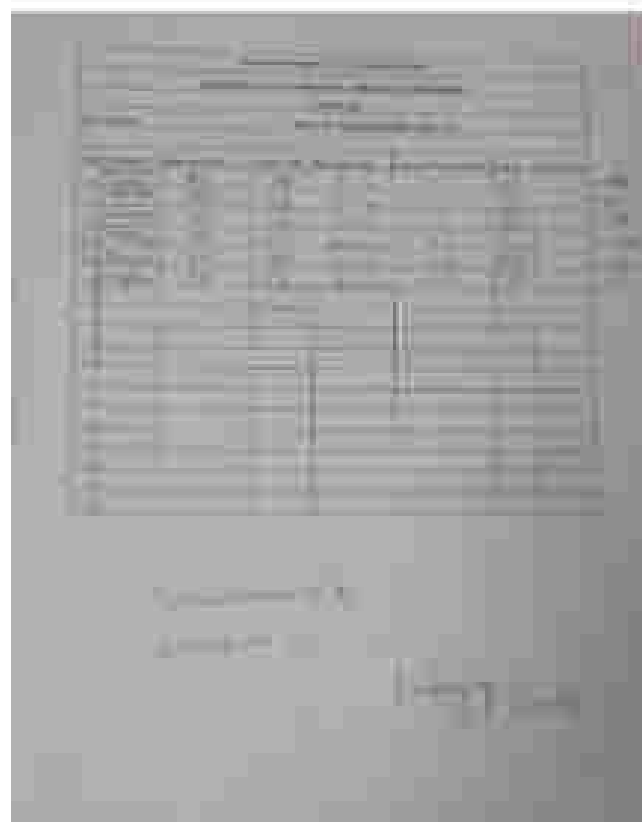
mul - Signal to multiply the data by a factor of 2 on next clock pulse

clr - Asynchronously clear the data present.

Output:

- The contents of the data stored.

Evaluation sheet:



Winners of the event :

Place	Team Name	Members	College
1st	Techno Timers	1. Sanjay 2. Haridharan 3. Sneha A	Sri Venkateswara College of Engineering
2nd	Zeros	1. Roshan M 2. Vikash BG 3. Roobuck Ganeshwara Rao C	Sri Venkateswara College of Engineering

Report By:

MR RAM SOLAIAPPAN A (III Year, ECE B)

Mentor, RAIC

CHIEF GUEST OF DAY-2

About the Chief Guest :



Dr. V. Narayanan, a distinguished scientist and visionary leader in the field of rocket and spacecraft propulsion. Dr. Narayanan currently serves as the Director of the Liquid Propulsion Systems Centre (LPSC), a vital component of the Indian Space Research Organization (ISRO).

One of his significant achievements was leading the successful development of the C25 Cryogenic Stage for the GSLV Mk. III vehicle, a milestone in India's space endeavors.

Under his leadership, the LPSC has delivered numerous propulsion systems and control power plants for launch vehicles and satellites, making significant strides in space exploration. Dr. V. Narayanan is an exemplary scientist and leader whose unwavering dedication has significantly contributed to India's achievements in space exploration.

Dr. V. Narayanan, addressed the audience, sharing his invaluable insights on personality development and the journey of ISRO missions. He began by emphasizing the importance of character development for students to excel in their paths and also discussed the vital role of student-professor interaction in gaining a deeper understanding of a specific field.

Dr. V. Narayanan then provided a comprehensive overview of the evolution of ISRO's missions, starting from their inception to their most recent achievements like Chandrayan 3 and the Vikram-L1 mission, which aimed to land on the sun.

Snapshots of event :



Lecture by the chief guest, Dr. V. Narayana.



Dr. G. A. Sathish Kumar presenting the memento to the chief guest.



Dr. V. Narayanan, along with the office seniors and faculties of ECE Department.



UPAGRAHA'23 VALEDICTORY CEREMONY

The valedictory ceremony of Upagraha 23 was organized by the Department of Electronics and Communication Engineering. The event took place on 12/10/2023 (Thursday) from 3:00 PM to 3:30 PM.

The valedictory ceremony commenced with the arrival of Dr.G.A.Sethiish Kumar, Head of the Department- ECE, Dr.T.J.Jeyaprabha, Associate professor, Department of ECE, Mr.S.Elangovan, Assistant professor, Department of ECE and the participants and winners of various events along with the members of the organizing committee.

Winners of various events were felicitated by the HoD-ECE and certificates, cash prizes were provided. Upagraha'23 concluded with the national anthem.

Snapshots of the event :



Dr.G.A.Sethiish Kumar, HOD, ECE Department, distributing prize to the winners.



Dr. T. J. Jayarambha, Faculty co-ordinator distributing prize to the winners



Faculty co-ordinators, Dr T. J. Jayarambha and Mr. Elangooran along with office bearers of SCBA, IETE-SF and RAIC.

ORGANISING COMMITTEE COMPRISING OF:

Chief Patron	: Dr.M.Sivanandham, Secretary, SVEHT
Patron	: Dr.S.Ganesh Vaidyanathan, Principal, SVCE
Convenor	: Dr.G.A.Sathish Kumar, Professor & HOD
Faculty Co-ordinators	: Dr.T.J.Jeyaprabha, ECEA, IETE-SF and RAIC Coordinator Mr.S.Elangovan, ECEA, IETE-SF and RAIC Coordinator

ECEA comprising of:

President	: Mr.Prithiviraj V S(IV Year ECE C)
Vice-President	: Mr.Avinash P (IV Year ECE A)
Secretary	: Mr.Sharad L (III Year ECE C)
Treasurer	: Ms.DEEPIKA S(III Year ECE A)

Executive Members	: Mr.Anish Krishnan(III Year ECE A) Ms.Dharami A (III Year ECE A) Mr.Lok Ranjan B (III Year ECE B) Mr.Kiran Yadav V(III Year ECE B) Ms.Lathika Shri (III Year ECE B) Mr.Udhaya K (III Year ECE C)
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Joint Secretary	: Mr.Ashwin R(II Year ECE A) Ms.Kanishkamathi S(II Year ECE B) Ms.Varsha P (II Year ECE C)
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IETE SF SVCE comprising of:

Chairman :Ms. Mrdulla V Neerayan(IV Year ECE B)

Vice Chairman:

Student Coordinator :Mr Sanjay Lokesh A M(IV Year ECE C)

Event Coordinator :Mr. Shashidar G(IV Year ECE C)

Honorary Secretary :Mr. Mukesh S (III Year ECE B)

Honorary Treasurer:Ms. Srivarshini S (III Year ECE C)

Executive Members:Mr. Amarnath S (III Year ECE A)

Mr. Aadhithya Narayanan B(III Year ECE A)

Mr. Parvesh R (III Year ECE B)

Mr. Prabhu Dharshan R (III Year ECE B)

Ms. Subasree S S (III Year ECE C)

Mr. Umesh Anandh S (III Year ECE C)

Joint Secretary :Ms. Deepikashri S (II Year ECE A)

Mr. Manoj Kumar K (II Year ECE B)

Mr. Tamil Nilavan S (II Year ECE C)

RAIC comprising of:

- President** : Mr. Ganeshan H (IV Year ECE A)
Vice President : Ms. Saehalatha M (IV Year ECE C)
- Secretary** : Ms. Sudeeka R (III Year ECE C)
- Joint Secretary** : Mr. Adarah S (II Year ECE A)
Mr. Ramanathan M (II Year ECE B)
Ms. Vasantha Vidhya P V (II Year ECE C)
- Lead Mentor** : Mr. Rajit H (IV Year ECE C)
- Mentors** : Ms. Kavitha S (III Year ECE B)
Mr. Kiransekhar (III Year ECE B)
Mr. Nandhanan R (III Year ECE B)
Mr. Parvesh R (III Year ECE A)
Mr. Ram Solaiappan A (III Year ECE B)
Ms. Saambavi P U (III Year ECE B)

Dr. T.J. Jayaprabha

ASP, ECEA, IETE-SF, RAIC Coordinator

Dr. G.A. Sathish Kumar

Professor & HOD-ECE

DATE: 30.10.2023

Report by:

Ms. Deepika S (ECE-A, III-Year)

Treasurer, ECEA

