A Report on

BITFLIP – Technical Fest 2k22

A. P. SHAH INSTITUTE OF TECHNOLOGY
Department of Computer Engineering

Conducted on 15th & 17th September 2022

Organized by *Computer Students Association*

Prof. Rushikesh Nikam

Faculty Coordinator

Prof. Sachin Malave

Head of Department

CSA Team

Aryan Kumar	President
Janhavi Silaskar	Treasurer
Raj Rehapade	Event Coordinator
Mitali Mohite	Design Head
Harshita Talwar	Joint President
Om Behra	Joint Treasurer
Aarsh Jain	Joint Event Coordinator
Aditi Panchpor	Joint Design Head
Ananya Ketkar	Team Member
Anuj Shinde	Team Member
Sharvari Kasar	Team Member
Areen Kolekar	Team Member
Soham Palav	Team Member

BITFLIP 2K22

A. P. Shah Institute of Technology has celebrated **Engineer's Day** on 17th Sept 2022 in honor of Dr. M. Visvesvaraya, a True Gem of India and to remember the best of Engineers we ever had. Sir Visvesvaraya, an eminent Indian engineer and statesman was born in a remote village of Karnataka, the State that is incidentally now the Hi-tech State of the country. Due to his outstanding contribution to the society, Government of India conferred "Bharat Ratna" on this legend in the year 1955.

The Intra College Department level technical and non-technical event **"BITFLIP"** organized by Department of Computer Science under CSA took place in the college premises on 15th & 17th September 2022 in the presence of Head of Department of Computer Engineering, **Prof. Sachin Malave** and the teaching staff of the Department of Computer Engineering. The event was led and executed successfully with **150+ students participation** under the guidance of **Prof. Rushikesh R Nikam**.

The following events were conducted under BITFLIP 2K22:

1. Ideathon
2. Treasure Hunt
3. Laser Hurdle
4. E-Gaming
5. Price is Right
6. Blind Coding & Speed Typing
7. UI/UX
8. Squid Game
9. Scatter Ball
10. Hey, How Does That Work?

BITFLIP 2K22 INAUGURATION

1. IDEATHON

Event Head - Ashneel Raje

Ideathon was a part of one of the technical events of the Techfest "BITFLIP" organized under CSA on 17th September 2022. These events are organized every year with the objective to provide a platform for the students to showcase their talent with a competitive spirit.

The event was successful enough to attract as many as 10 teams of registrations for this one-day event making it an event attended by more than 30 students. "Ideathon" a technical idea pitching competition where the students would participate solo or as a team of up to 4 people. This was a competition of pitching innovative business ideas just like shark tank. These ideas were to be presented through a presentation. Each team was given a time till their allotted time slots for the creation of this presentation of 5-6 slides. The teams were given a total of 10 mins to present this presentation. These ideas were judged on the basis of their authenticity, feasibility, scope, profitability and scalability.

The event was made even more fun and interesting when the audience were also asked for their opinion on the presented ideas. The event was concluded by encouraging winners with an e-certificate and participants with words of encouragement.
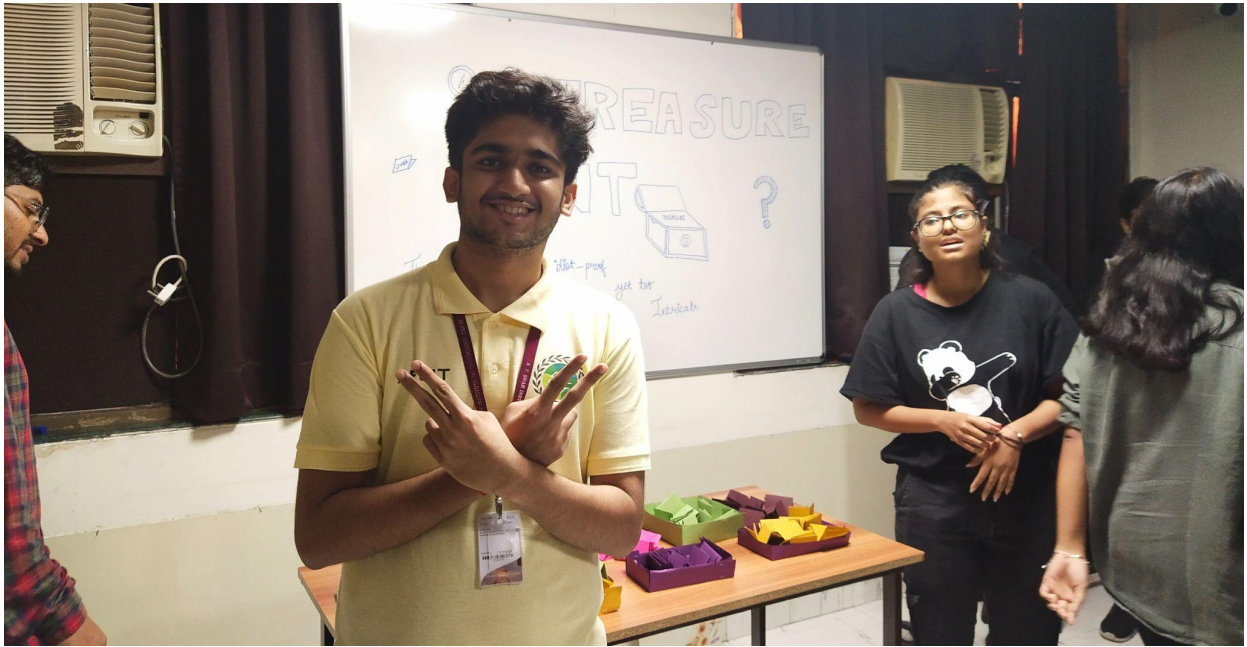
2. TREASURE HUNT
Event Heads - Rutuja & Alisha

Treasure Hunt was a part of one of the technical events of the Techfest "BITFLIP" organized under CSA on 17th September 2022. These events are organized every year with the objective to provide a platform for the students to showcase their talent with a competitive spirit.

The respective co-heads had some fellow students volunteer for this event and the preparations were on a roll 2 days prior to the event. First the pattern of the event was decided then the rules were formed. It took brainstorms for the volunteers and the co-heads to come up with an exciting format of the game and witty clues/objects which were designed to amuse as well as keep the participants on their toes. The day of the event arrived, as the preparations were on a high note volunteers started hiding the clues along with the final object. Event commenced at 11 am with a jarring amount of participants rolling in for being the part of "The Hunt". A team of 4 along with an assigned volunteer for their guidance through the levels of the game and in total 5 teams at a time were playing.

The flow of participants didn't stop as it indicated that the event was a big hit. Even some faculty members were tempted to take part due to the interesting pattern of this event. As the event progressed towards its designated slot there was no less enthusiasm in the volunteers and the participants. All in all the event was a great success as the participants enjoyed it as much as the organizers.

3. Laser Hurdle

Event Head - Omkar Nimbalkar

Laser Hurdle was a part of one of the technical events of the Techfest "BITFLIP" organized under CSA on 15th & 17th of September 2022. These events are organized every year with the objective to provide a platform for the students to showcase their talent with a competitive spirit.

More than 50 students attended the event even on Saturday, proving that it was successful enough to draw many students for this single-day event.

In order to reflect laser light so that it could reach its destination with the aid of mirrors and to make the beam visible smoke was generated, numerous lasers were fixed at exact angles.

Additionally, to add to the intrigue, buzzers with electronic circuits were added to the end of the beam; as the player dims the laser, the buzzers beep. The assigned room was 304-A, a former library that was completely enclosed and had no windows, thus all lights were turned out and total darkness was generated. a pathway was created to reach the goal.

The organizers and volunteers put in a tremendous amount of time and effort to make this event a success, and even after it ended, there was still a high demand for it.

While the game was being played, the players were receiving cheering and support. Faculty members also attempted to play laser hurdles as the event was nearing to a close.
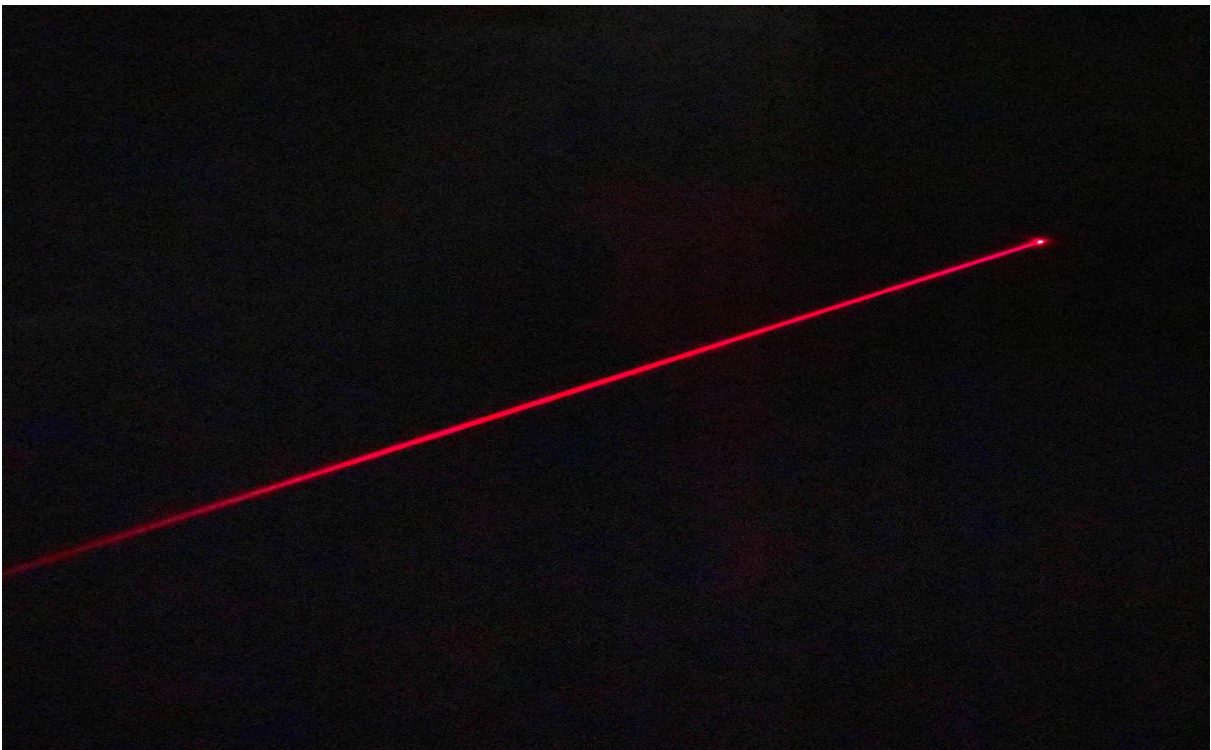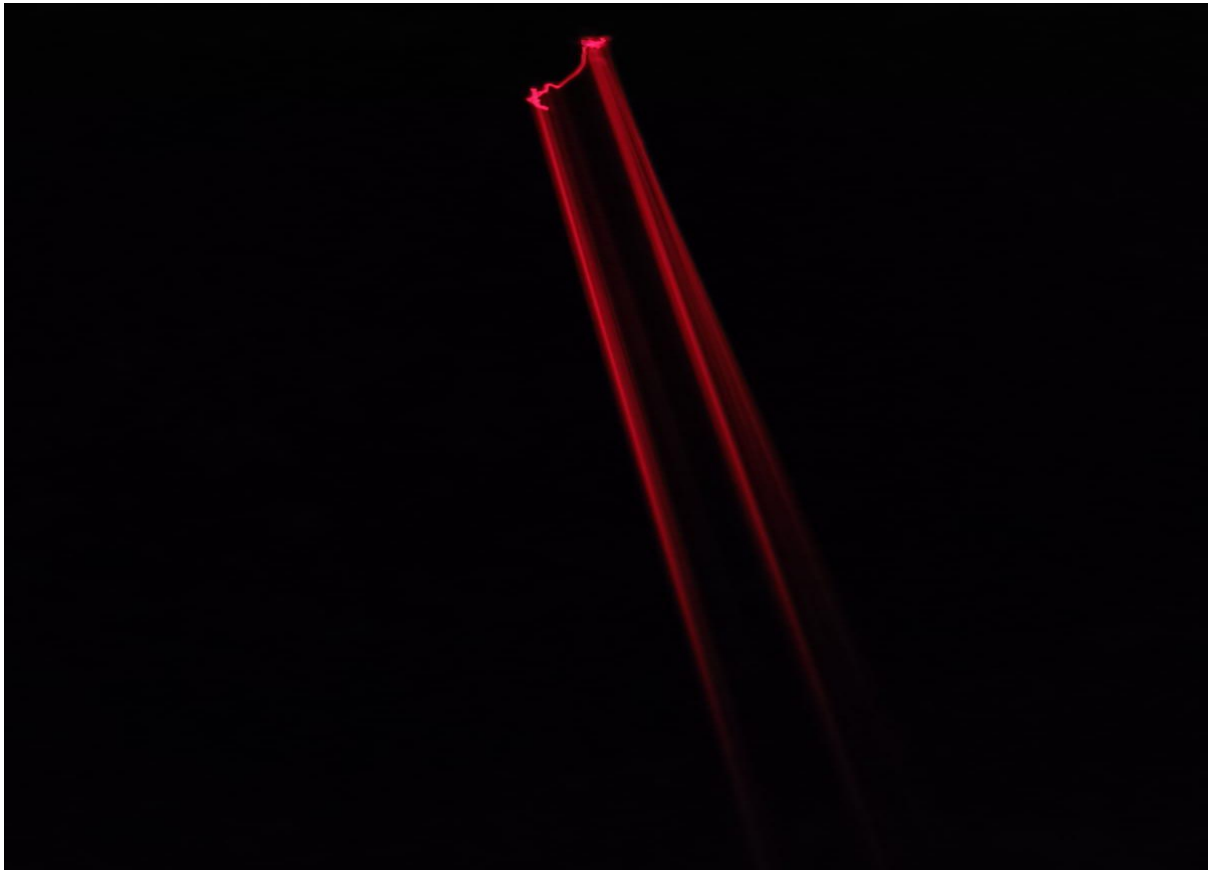
4. E-Gaming

Event Head: Anuj Shinde

The E-Gaming event was one of the various technical and non-technical events held as a part of BITFLIP , the technical event of the Computer department organized by the Computer Students Association (CSA) . The events were held on 15th september and 17th september 2022. These events were organized with the objective to provide a platform for the students to showcase their gaming talent with a competitive spirit.

The E-gaming events consisted of 5 games, both of team and individual category. The games were as follows:

Shell shocker: Team-based first-person shooters are just about everywhere. You pick up a weapon, run in the direction of the other team, and rack up as many kills as possible. This take on the classic formula is a little different, in that all of the combatants are actually gigantic eggs. This game was organized on 15th september. Students formed teams of their choice and the event received great participation from students.

CS GO: Counter-Strike: Global Offensive (CS:GO) is a multiplayer tactical first-person shooter. The game pits two teams, Terrorists and Counter-Terrorists, against each other in different objective-based game modes. The labs of our institute were occupied by the students where the games were installed and students participated by making teams amongst themselves.

Getting over it: Getting Over It with Bennett Foddy - a rather unusual simulator game with elements of physics in which your main task will simply be to climb to the top of the mountain, while you will have complete freedom of action, however it will be extremely difficult to do this, because half of your hero's body is in a cast-iron tub. This event was held on 15th and 17th september and received

maximum participation. Player progress was projected on the screen in the lab occupied.

Smashkart: Smash Karts is a 3D multiplayer kart battle game. Drive your go-kart, pick up weapons, and blow up other karts to win! Keep playing to level up and unlock new characters and prizes. Students participated in this event using their own devices.

Cod mobile: Cod mobile is a fps mobile shooting game. It was an individual event . Many students participated in this event using their own mobile devices.

For every event there were helpful game heads who made the event successful. The game heads were as follows:

Anurag Kawade - COD

Shubham Mojidra - Shell shocker

Sharvari Kasar - Smashkart

Juhi sonar - Registration Coordinator

Atharva Shinde - Event co-head

Anuj shinde - Event head

5. Price is Right, Blind Coding & Speed Typing

Event Head: Ananya Ketkar

As a part of BITFLIP, the technical event of the Computer Department organized by the Computer Students Association (CSA); Price is Right, Blind Coding & Speed Typing were some of the technical and non-technical events held. The events took place on September 15th and September 17, 2022. These events were planned with the intention of delivering a platform for kids to competitively show off their coding and typing skills and have some fun.

Price is Right:

The Price Is Right is a game show series that was developed by Bob Stewart. It was first produced by Mark Goodson and Bill Todman, and Fremantle currently produces and owns it. The franchise primarily focuses on television game shows, although it also sells board games, video games, and printed materials. The series debuted as a Bill Cullen-hosted television game show in 1956 and underwent a redesign in 1972. Bob Barker served as the initial host of this version. Since 2007, Drew Carey has served as the show's host.

By estimating the cost of products, contestants compete for cash and prizes. The show has received positive reviews and continues to perform well in the television ratings. It also succeeded in departing from the game show format that quiz programs have traditionally followed. Since the release of the current version, it has also been translated into a number of different international forms, most notably in the United Kingdom, Spain, Australia, Mexico, and Vietnam. It was voted No. 5 in 2013 by TV Guide, which also listed the top 60 game shows of all time.

Blind Coding:

When a programmer works on code blindly, they don't run it until everything is finished. While normally a horrible concept, this presents a fun challenge. The Blind Coding Challenge is a personal and enjoyable competition open to students in all grades studying computer engineering and information technology.

The competition's name refers to the fact that each competitor will be given four programming challenges of varying degrees of difficulty to complete in a set amount of time—30 minutes—without using a compiler and with their monitors off. Either the Java or C++ programming languages can be used to handle these programming issues. The students can be helped in tackling these difficulties through careful examination and implementation of the algorithms they learned throughout their undergraduate studies.

Speed Typing:

Speed typing competitions pit competitors against one another to achieve the fastest, most accurate typing times; they have been popular in North America since the 1930s and have been used to compare the relative productivity of typing on the Dvorak and QWERTY keyboard layouts.

6. UI / UX Design
Event Head: Aryan Kumar

UI / UX Design Event was a part of one of the technical events of the Techfest "BITFLIP" organized under CSA on 15th and 17th of September 2022. These events are organized every year with the objective to provide a platform for the students to showcase their talent with a competitive spirit.

UI/ UX Design event was conducted offline where participants had to design an eye-pleasing user interface of the website of their desired choice. Participants were informed prior to the actual event day so they could prepare accordingly. On the event day participants were allocated PC's and labs to sit and code for the allotted event time. Whichever participant had the best user interface were to be chosen as the winner.

This event was a great way for students to get a feel for industry-ready design while also gaining credibility for their portfolios. It was a one and half hour competition after which participants had to submit their designs.

Janvi Mehta (TE-B) was the winner of the UI / UX design event with her design given below:
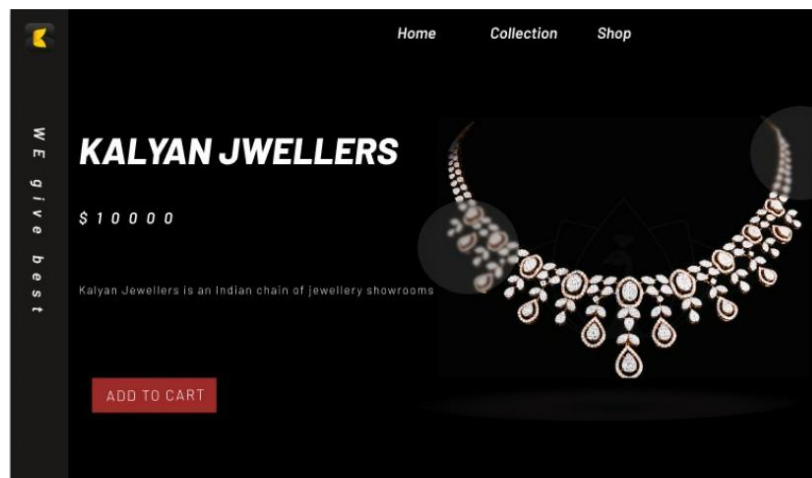
7. Squid Game

Event Head: Pooja Tumma

The Event was a part of one of the various technical and social events organized under CSA on 17th September 2022. These events are organized every year with the objective to provide a platform for the students to showcase their talent with a competitive spirit.

"Squid Game" a technical event where the students would participate as a team of two. The competition consisted of three rounds.

Round1: **Marble Mazze**

In Round 1 each member was given 5 marbles and they were supposed to write a code which will randomly generate numbers. Then the members had to bet the marbles and guess if the opponent's number was even or odd. The members who guessed it correctly were promoted for round 2.

Round2: **Pattern Coding**

In Round 2 the winners of Round 1 were supposed to select a chit randomly and code the pattern that was drawn on the chit. A 15 minute timer was set and the participants who were able to code the pattern were then promoted for Round 3 which was the final round.

Round3: **Red light Green light**

In the final round the members were supposed to generate a code that will turn red light to green light. They were allowed to use the internet so that they could find some similar codes and then create their own. A 30 minute timer was set and the participants that were able to turn the red light blue were declared as winners and prizes were given to them.

Team of Members

Sr.No	Name	Year
1	Pooja Tumma (Event Head)	TE
2	Eisha Saini	TE
3	Aditi Raut	TE
4	Pranay Patil	TE

Team of Participants

Sr.No	Name	Year	Division
Team 1	Kapil Surve	SE	A
	Naman Shilotri	TE	C
Team 2	Aditi Shardul	TE	C
	Deepa Upadhyay	TE	C
Team 3	Niraj Patil	TE	C
	Vedang Deshpande	TE	A
Team 4	Atul Gupta	SE	A
	Kapil Surve	SE	A
Team 5	Ashneel Raje	TE	C
	Harjot Singh Siddhu	TE	C
Team 6	Omkar Nimbalkar	TE	B
	Rajesh Gowda	TE	A
Team 7	Sahil Sajwan	TE	C
	Hrishikesh Rane	TE	C
Team 8	Abhishek Tiwari	TE	C
	Abhay Sharma	TE	C
Team 9	Sayali Nikam	TE	B
	Raj Rehapade	TE	C
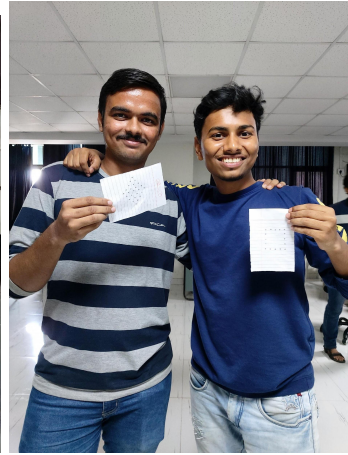
8. Scatter Ball

Event Head: Om Walanju

Scatter ball was a non-technical event. It was held as part of BITFLIP, the Computer Department's technical event organized by the Computer Students Association (CSA) of A. P. Shah Institute of Technology Thane. This event took place on September 17th, 2022. This event was organized to instill enthusiasm in students and to show their sportsmanship skills.

Scatter Ball is a hybrid of handball, dodgeball, and lock and key. This game is played by two teams, each with 5-6 players depending on the criteria. So, in essence, the criteria are:

1. If there are five players, there will be four boys and one girl.

2. If there are six players, there should be five boys and one girl, or four boys and two girls.

This game will have goal posts on both ends where the opposing team must score goals along with certain rules. And the rules are as follows:

1. The team that locks the most players from the opposing team earns three goals.

2. Goals can also be scored by throwing the ball into the appropriate net.

3. Ball dribbling is restricted; the maximum number of steps a player can take is three before passing the ball to a teammate; no player can hold the ball for more than five seconds.

4. If a player is hit by the opposing team, they are locked and must sit down. They can only be unlocked if they receive the ball from a teammate on their own team.

5. A player is locked if he/she is hit below the waist or knee.

6. Teams should avoid locking their players and score as many goals as possible.

7. The team with the most goals wins.

Scaller ball is played in a KNOCKOUT format with a time limit of 14 minutes per game, including 7 minutes between halves. Scatter Ball proved to be a successful event. This event was estimated to have 50 or more participants. Each participant provided positive feedback, indicating that they had a good time. All participants were overjoyed and enthusiastic that day. The event's organizers and volunteers worked extremely hard with dedication and gave it their all. Thanks to the CSA team, and special thanks to HOD sir and management for their timely advice and cooperation in organizing the Scatter Ball.

9. Hey, How Does That Work?
Arun Mathai - Training Session

Hey, How Does That Work? was a technical session with Arun Mathai (TE - Comps) as the speaker. It was held as part of BITFLIP, the Computer Department's technical event organized by the Computer Students Association (CSA) of A. P. Shah Institute of Technology Thane. This event took place on September 17th, 2022.

This session was of 2-3 hrs in which students were given a brief idea or information about various software topics by the speaker Arun Mathai from TE Comps. The aim was to make the audience aware of a few things and give them a glimpse as to how things work with the following technical and isolated topics covered in the event.

1. Binary Files
2. Code pages, Character Coding, Unicode, UTF-8 and the BOM
3. Debugging
4. Terminal/ Shell/ Console/ Prompt - Are all the same?
5. Ports and Processes
6. Buffer Overflow
7. Script Kiddle, DOS - Slow Loris
8. Chit Chat
9. SEO Campaign Strategies

Acknowledgement

The event was organized successfully and left its imprints like flowing water embarking its impression on a pebbled shore. It gave an opportunity to everyone to remember and cherish the works of Sir Visvesvarayya.

The team of CSA feels proud to organize such a successful event and would like to convey thanks to **Principal Dr. Uttam Kolekar, Head of Department Prof. Sachin Malave, Faculty Coordinator Prof. Rushikesh Nikam** and Management team for their timely advice and co-operation for organizing **BITFLIP 2K22**.