

BMS COLLEGE OF ENGINEERING

REPORT BY

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATION**



14TH AND 15TH SEPTEMBER 2019

THEME: 'ENERGY AND SUSTAINABILITY'

The theme of Phase Shift 2019 held on 14/9/2019 & 15/9/2019 was 'Energy and Sustainability'.

Under the banner of **Phase Shift 2019**, the Department of Electronics and Communication Engineering contributed the following:

- Conducted five competitive events,
- Organized two workshops,
- Managed to get three companies to set up their stalls at Phase Shift,

The department itself set up a stall to display the best projects carried out in the past year, and got sponsorship from nine companies.

1. Fury Road V5:

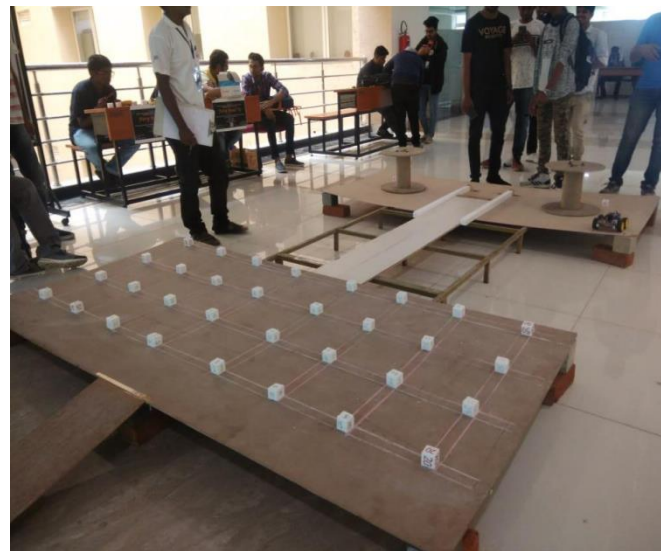
The scintillating flagship event of the EC department is the Fury Road. The participants are required to build an RC (remote controlled) car on their own. The car will be tested against other team's cars until the last one standing is worthy of being the winner. The winner received a cash prize of 8,000 rupees and the runner up received 5,000 rupees. This event tests the team's RC car on design, speed, durability, power and additional features. There will be three different rounds wherein only the top teams with best performance will be qualified for further rounds. The event was conducted on 14th and 15th of September. **50 teams** participated in the event.

The industry collaboration was with Silverline Electronics, who provided 15 MAGPIE Magazines worth 9,000 and a total sponsorship of 24,000 rupees. The event coordinators were Akash Jawahar S, Varun Kumar TP and Yashas HS. The faculty coordinator was Śrī J. Dinesh Reddy.

Round 1: This round was conducted on 14th September. Teams were required to complete a given maze and collect a maximum number of coins within a given time period, without being caught by the chaser bot. The teams scoring the highest points were qualified for the next round.

Round 2: This round was conducted on 15th September. This round is a 1 VS 1 knockout match. Teams had to accumulate maximum number of cubic points against each other in their respective goals.

Round 3: This round was conducted on 15th September. In this final round, the top qualifying teams raced with each other, head on, to win the competition.



AI Challenge was held on 15th of September 2019 in collaboration with Streamoid Technologies Pvt. Ltd. The faculty coordinator was professor Dr. K. P. Lakshmi and the event coordinators were Chetana K, G S Shreyas and Nikita R. The participants were required to build a machine learning model for the given problem statement and the image dataset. The problem statement given was to classify the set of images into organic and recyclable waste and further classify them as apple, orange or banana under organic and as plastic, tin or cardboard under recyclable. The datasets provided included two folders containing recyclable and organic images. The main aim was to get the models of the participants to recognize an image that contained any combination of the recyclable and organic wastes. The participating teams also presented their algorithm and the models used to the panel of judges from Streamoid Technologies this was followed by a questionnaire. The two teams that presented had two very different approaches to the problem statement but at the same time gave the judges satisfactory results.



3. Circuit Sculpture: The Battle of Bidding: The event was conducted on 14th September 2019, Saturday; with 9 teams participating in the event. The event coordinators were Sai Lahari S, Ranjith and Yuktha C. The faculty coordinator was Dr. Jayanthi K Murthy.

Round 1: A series of questions were given to the participants who earn points for correct answers. Using the points earned in this round the participants got to bid for the components in the bidding round.

Round 2: Circuits were assigned to each team through a puzzle

Round 3: The qualified teams bid for components required to complete the circuit assigned to them. This round tested their basic knowledge of electronic circuits.

Round 4: In this round, participants designed their respective circuits using components they bid and tested their circuit with various test cases.

The top two winning teams walked away with prize money Rs. 2,000/- and Rs. 1,500/- respectively.



4. The Decryptor: The event was conducted on 15th September, Sunday; consisting of 3 rounds. The first round was general quiz about energy and sustainability through which participants were to solve quiz and a word was to be coined(eg:sustainability). Ten teams were selected to the second round. Before the beginning of next round the circuit to be built was shown and explained to the participants to remember it till the last round. The second round was treasure hunt, where the participants were required to gather circuit components to be used in the last round. The components were placed around the campus of BMSCE and 6 teams were finalized for the third round. The last round had 2 sub-rounds: building circuit



based on memory and last round was to build the same circuit with jumbled and extra components. With the competition conducted in a fair manner, top two teams were declared as winners.

The Event was conducted by 3 event coordinators - JagritDuseja, Mahalaxmi and SethashtaPathre P Kumar. The faculty coordinator was Dr. R. Jayagowri.



5.Make-a-mark: Make-a-mark was a non technical event which tested the aptitude, convincing and presentation skills of students. The judges for this event were Rahul Kolle and Sarthak Goyal, alumni of BMSCE, who are very famous for their public speaking skills. The first round of make-a-mark needed students to decrypt ciphers in order to get a keyword as a result. When they got the keyword they gave it to us. We presented them a problem statement for that particular keyword. They had to use that to make a presentation in order to provide a solution and explain their whole project. The judges wanted the participating teams to prepare a presentation which focused on all these aspects:



- Complete corporate plan
- Complete financial plan
- Investment plan
- Main focus on the idea they have

Round 1: Decryption Round: the teams start with a total of 20 points. They would lose 5 points if they asked for a hint or another question.

Round 2: Consisted of a total of 60 points (each judge having a separate scoresheet). The second round was based completely on the judges. The aggregate score was taken and the winner and runners up were decided.

Proceedings: There were a total of six teams participating. Four teams made it through to the second round. All the teams decrypted in about twenty minutes. Before the second round, participants were given an hour of preparation time before they presented their ideas. The judges offered a bonus of 10 points for the team which would come forward first. The event went smoothly and even from the audience we received responses and questions to the teams. Rahul and Sarthak made sure they judged everything. They made sure the participants were very detailed about their ideas and presentations. Professor Dr. B. S. Nagabushana, who was the faculty coordinator for this event added his valuable insights to the event even before and after the event. The event concluded with a valuable note from Professor Dr. B. S. Nagabushana and the jury, Rahul and Sarthak.



7/10/19-10/10/2019: The ELSOC club of BMSCE in association with FURY ROAD V5, the flagship event of ECE department for Phase-Shift-2019, conducted a series of three workshops on 'how to build a remote controlled car' on 07/09/2019, 08/09/2019 and 10/09/2019. The workshop for 7th October was held in CR-306, ECE block and the other two workshops were conducted in BSN Hall, PG block, BMSCE.

