The new IEEE Committee was formed on 5th October 2016. The following were the events conducted since then:

- A visit to IIT Bombay- Pratham Satellite-18/01/2017
- A seminar on RoboWars- 21/01/2017
- A seminar on Smart Navigation Tesla- 13/02/2017
- A seminar on Maze Solver- 18/02/2017
- A visit to Imaginarium- 6/03/2017
- Workshop on Robotics- 15/03/2017
- A visit to Endress Häuser - 20/03/2017
- Robo-Racing(Trinity) 23,24,25/03/2017

IIT Bombay:

About the visit:

The first Industrial visit by IEEE Brainwaves was to IIT Bombay; which is home to the first student satellite, Pratham. **Pratham** is an Indian ionospheric research satellite which is being operated by the Indian Institute of Technology, Bombay as part of the Student Satellite Initiative. Its primary mission is to count electrons in the Earth's ionosphere.

The Experience:

The visit to Pratham was a small endeavour, with only 40 students. However, the experience was truly enriching for all. The objective of the visit was to give the students a first-hand experience about the satellite and the entire venture from inception. A brief PowerPoint presentation gave the students an overview of the venture. The students were shown a live feed from Pratham. The students were then taken to the labs where all the testing and engineering had been done. This gave the students an insight into the decade long project that has been going on in IIT Bombay. All of this was then followed by a Q&A session. Each question reflected the keen curiosity of the students of DJ Sanghvi. The Q and A session thus marked the end of the IV.

Seminar on RoboWars:

About the seminar:

RoboWars has always held the imagination and amazement of engineering students. Robowars is a reflection of the engineers keen mind and awesome imagination. In keeping with this line of thought IEEE Brainwaves decided to conduct a workshop on robowars, so that those who attended would take their first dive into the enriching and deeply complex world of robot-wars.

The Speaker:

Seminar was conducted by **Mr. Kaushal Bhuva**, an alumnus of our College who is currently pursuing Mtech

from IIT-B in Electronic Systems and has worked in ACG Worldwide R&D Centre. He has won more than 90 robotic events in Mumbai colleges & is a winner of IIT-B Robowars 2016- League Of Legends, Quarter finals in 2017. Member of MSI-IITB team making Mars Rover for URC competition by NASA at Utah & is a mentor for ASME IITB team.

The Experience:

Kaushal Bhuva started with a set of interesting videos each describing the various requirements in building a robot that could both compete and win in the competitions like those at IIT Bombay. The videos were a cornucopia of details on the material as well other components. The interactive Q&A session that followed showed the keen interest of the students. Total number of registrations for the event were 210.

Seminar on Smart Navigation:

About the Seminar:

Smart Navigation seems to be at the cutting edge of the automotive industry. A goal that many automotive companies are pursuing.

The Speaker:

Seminar was conducted by **Mr. Dhaval Shroff**, an alumnus of DJ Sanghvi College. He completed his Masters in Carnegie Mellon University(CMU). Dhaval works in the R&D department of autopilot, Tesla. Seminar was open to students of all departments.

The Experience:

Mr. Shroff shared his experiences and insights of working in Tesla. He shared many anecdotes and technical insights of the various technologies he has worked. There was a keen interest in students to know about Tesla cars and Smart Navigation System. Q and A session was thus marked the end of seminar. The seminar was attended by 250 students from all departments.

Seminar on Maze solver:

About the Seminar:

A rather specialized field, but one of great interest nonetheless. Maze solvers are intricately designed robots, requiring knowledge of computers, electronics and mechanics.

The Speaker:

Seminar was conducted by **Mr. Abhishek Kamath.** He is an alumnus of DJ Sanghvi College. Mr. Kamath is currently working at Intel.

The Experience: .

A maze solver is a robot which holds the capability to move through an entire maze, process the path followed by it and then complete it. It requires intricate design and various sensors to measure several

parameters. Students were given detail information of the same. The seminar was for TE and BE students specifically designed for those who wished to take maze solver as a project. Seminar was attended by 120 electronic department students

IV to Imaginarium:

Imaginarium is India's largest Rapid Prototyping and Rapid Manufacturing Center. Our visit there was assisted by **Abhishek Pathkar,** who is an employee of Imaginarium and an alumnus of our college. They provide prototypes to an assortment of industries from jewellery, engineering, automotive, architecture, consumer goods, etc.

The students were given in depth knowledge about manufacturing of various goods and the how the machines were designed and work. Each machine was designed for a different task .A variety of goods right from stationary to gold and silver jewellery are produced there. Overall it was a very good experience for the students as they were introduced to the artistic side of engineering.

The IV was open for all interested IEEE MEMBERS.30 IEEE members visited Imaginarium accompanied by the faculty member Prof. Vivek Nar.

Workshop on Robotics:

A session on ROBOTICS conducted by Mr. Vivek Nar. The main objective of this workshop was to provide hands on experience on robot building. The students were also introduced to background on competitive robotic design, the fundamentals of building robots from scratch, the mindset of working in a team, building robots for competitions, and demonstration of automated and acquabots and gliders.

Mr. Vivek Nar is a faculty member of the Electronics department of our college. An expert at robotics, and former winner of various prizes at competitions conducted across the city. All the students who participated made their own bots either in a group or individually. Kits were provided by the committee. Videos of various robotics competitions were played.

Workshop was attended by 45 students from various departments.

Endress Hauser IV:

The students that are members of IEEE strive to provide various programs as part of Continuous Improvement program and Academic- Industry interaction. Our aim is to give the students exposure to current best practices in the industry. Endress+Hauser Wetzer a German company, one of the leading producers of temperature measurement, temperature engineered solutions and system products worldwide.

It began with the students being briefed about everything related to the company and the activities at the Aurangabad factory. They were then taken for a round of the factory in which each of the manufacturing process was shown to them and explained as to why and how the process is carried out. This was a very interactive and interesting session and the students asked various questions to the experts which were catered to very well. This session generated a lot of interest in the students related to the manufacturing field. Following this there was an orientation given to the students regarding the work culture, ethics, beliefs, objectives, achievements etc of the company.

The seminar was regarding the 5S and kaizen, a Japanese business philosophy of continuous improvement of working practices, personal efficiency, etc.
A 5 S program focuses on having visual order, organisation, cleanliness and standardisation.
The IV was open for all interested IEEE MEMBERS 27 IEEE members visited accompanied by the faculty members Prof. Mayur Parulekar and Prof. Vivek Nar.

Event - Roboracing :
The event Roboracing was held from 23rd to 25th march in association with Trinity. In this event IEEE Brainwaves had a track designed in an area of 16ft × 16ft. The track consisted of different slopes and challenging obstacles to be driven on, for the participants. The entire track was designed and prepared by the IEEE tech-team with assistance from the SE Co-committee members. There were various checkpoints and each of them on completion earned the player a specific set of points. The fastest and the one earning most number of points was declared as the winner. The average of both time and earned points was used to determine the winner of the competition. The event was also promoted as a fun event. Anyone could play the entire track with the bots that were provided by the organisers. It was ensured that for the competition the participant had to register and get their self-designed bots.
The prizes for the competition were
1st prize- ₹2.7k and 2k worth vouchers
2nd prize- ₹1.5k
3rd prize-₹800
Overall with positive response from the crowd the event was a great success with a lot of positive feedback.