

**DON BOSCO INSTITUTE OF TECHNOLOGY**



**INSTITUTE OF ELECTRICAL & ELECTRONICS  
ENGINEERS**



**IEEE-DBIT ANNUAL REPORT 2018**



## IEEE

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. IEEE stands for the Institute of Electrical and Electronics Engineers. As the world's largest technical professional association, IEEE's membership has long been composed of engineers, scientists, and allied professionals. These include computer scientists, software developers, information technology professionals, physicists, medical doctors, and many others in addition to IEEE's electrical and electronics engineering core. For this reason the organization no longer goes by the full name, except on legal business documents, and is referred to simply as IEEE.

As technologies and the industries that developed them increasingly transcended national boundaries, IEEE has kept pace. It is now a global institution that uses the innovations of the practitioners it represents to enhance IEEE's excellence in delivering products and services to members, industries, and the public at large. Publications and educational programs are delivered online, as are member services such as renewal and elections. By 2010, IEEE comprised over 395,000 members in 160 countries. Through its global network of geographical units, publications, web services, and conferences, IEEE remains the world's largest technical professional association.

### **Mission statement**

IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity.

### **Vision statement**

IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

## IEEE-DBIT STUDENT BRANCH

With globalization and a radical shift of the industry into the Electronics and IT fields, the need of the hour was excellent engineers. With its vast experience in managing educational institutes and especially technical ones, it was natural that the Salesians enter the engineering field. Thus DBIT came into existence in 2001. The Degree Programs offered are as follows: Electronics and Telecommunication, Computer Engineering, Information Technology and Mechanical Engineering.

IEEE-DBIT was started in the year 2010 under the Department of Electronics and Telecommunication. Since then it has been an active student branch with ever-growing IEEE Members.

IEEE-DBIT Student Branch organises talks, tutorials, hands-on workshops, industrial visits and distinguished lectures with an intention to reach out to students, faculties and industry professionals. The programmes are an exercise in life-long learning and are offered for the continuing education and skill up-gradation of professionals.

IEEE-DBIT Student Branch aims to create an awareness among the student community about the recent technological advancements and to make them aware of the industry standards and expectations; thereby, bridging the gap between academia and industry. To provide a platform for networking with industry experts and stimulate critical and logical thinking amongst students.

**IEEE Microwave Theory and Techniques Society (MTT-S)** is a welcoming, global community of scientists and engineers engaged in research and development of the RF, microwave, mm-wave and THz technologies.

**IEEE Women in Engineering (WIE)** is a global network of IEEE members and volunteers dedicated to promoting women engineers and scientists, and inspiring girls around the world to follow their academic interests in a career in engineering and science.

**The IEEE Special Interest Group on Humanitarian Technology (SIGHT)** is a program, instituted by the IEEE Humanitarian Activities Committee (HAC). IEEE SIGHT is a global network of groups consisting of IEEE members and volunteers who identify and address local problems by applying their technical skills and partnering with their local communities.

**IEEE-DBIT CORE COMMITTEE 2018**

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Reporting Head	Ms.Shraddha Naik

## IEEE-DBIT CORE COMMITTEE 2018



# CONGRATULATIONS

### IEEE DBIT CORE COMMITTEE 2018

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# EVENT REPORTS

**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**REPORT ON “WI-FI CONTROLLED BOT”**  
**EVENT NUMBER 1**

**Topic:** Wi-Fi controlled bot

**Date & Time:** February 23, 2018. 09:30 a.m. – 05:00p.m & February 28, 2018. 09:00 a.m. – 03:00 p.m

**Venue:** ‘A’ wing, 3<sup>rd</sup> floor, Hub hall

**Audience:** 60 students

**Description:**

The workshop began with a few words of appreciation by Dr. Prasanna Nambiar. The students were introduced to the concept of “Internet of Things” followed by Leo Linus explaining them about the history and the evolution of NodeMCU ESP8266. After a brief introduction, Amey More & Sanjana Patil went on to explain a few basic codes of the Arduino programming – LED blinking and Fading. Moving on, we had Tanuja Mehra who demonstrated the making of a small application with the help of MIT App developer. The workshop resumed after a lunch break with Vedant Shrungarpawar giving a gist about the main code which was used in the bot. The bot was controlled via a mobile application. In the meanwhile, the volunteers went around helping with the assembly of the chassis and other connections of the bot.

The following topics were covered:

- History and evolution of ESP8266
- LED Blinking and fading
- Difference between digitalWrite() and analogWrite()
- Design of a simple application using MIT app inventor



- Assembly of components
- Uploading the code on Arduino
- Testing of the bot

The “Robomaze” competition was held on Day 2 of Colosseum. One of the members of the team had to guide the other with the directions of the maze so as to find their way out of the maze in the shortest possible time.

### **The prizes winners:**

1<sup>st</sup> prize:

- Rutuja Shelar
- Raveen Radhakrishnan
- Soumyaprakash Chowdhary
- Rakshanda Mansuri



T.E - EXTC

2<sup>nd</sup> prize:

- Neeraj Prajapati
- Sreeraj Nair
- Kishan Shettigar
- Dilshad Ahmed



T.E - EXTC

**Feedback:**

I would like to thank IEEE & IETE for conducting such an amazing hands-on-workshop for our technical fest. The workshop started a bit late than the scheduled time but then it was very well organized. The event flow was smooth and I was able to grasp the concepts which were covered during the workshop. Time was managed properly and the volunteers were extremely helpful and active throughout the workshop. Looking forward for more such workshops!

**AISHWARYA ARUN**  
(TE-EXTC)

The workshop was really great and useful. All the volunteers were well versed with the content and all important topics were covered. Everyone amongst the volunteers were coordinating, helpful and open to doubts , in addition the arrangements done and the efforts put in arranging the venue were applaud able.



**NIDHI BORHADE**  
(SE-EXTC)

**Event Photographs:**





**Vote of Thanks:** Vedant Shrungarpawar (TE EXTC)

**Report Prepared by:** Ms. Sanjana Patil (TE EXTC)

**Report Approved by:** Ms. Gejo George IEEE DBIT Branch Counselor



**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**REPORT ON “CODER'S STRIKE”**  
**EVENT NUMBER 2**

**Topic:** Scratch

**Date & Time:** July 21, 2018, 9:30 a.m. – 2.00 p.m.

**Venue:** VLSI and Embedded System lab, 2<sup>nd</sup> Floor, B Block

**Audience:** 14 Students from SE, 3 Students from TE

**Description:**

Mr. Arnold Sequiera (TE EXTC) introduced the Scratch to the participants. Scratch is a free software which is used for creating animated stories, informational text as well as games. Scratch allows users to use event-driven programming with multiple active objects called sprites. Sprites can be drawn as vector or bitmap graphics, or can be imported from external sources example webcam. Mr. Arnold then explained the software and the various categories in it.

Discussion on the following points were done:

- Motion
- Sound
- Data
- Control
- Sensing
- Operators

Mr. Arnold had assigned tasks to the participants which were to make hexagon or circle in the co-ordinate system and make two spirits to dance simultaneously with change in the backdrop which everyone was able to perform. Ms. Sanjana Patil (BE EXTC) then explained us how to create a game called feeding frenzy where in the shark would eat the small fishes which would increment the user's score by one and if the shark comes in contact with the crab the game would end and various other tools too were explained while creating the game. Mr. Arnold then demonstrated a panio in which the inputs were given with the help of mouse. Towards the end the participants were asked to create a game as per the specifications given to them. Mr. Amey then gave a small sneak peek into the blender software.

**Feedback:**

ANJISHNU DATTA  
(SE-MECH)

It was a wonderful workshop that was organized by IEEE-DBIT on July 21<sup>st</sup>, 2018. It was based on a software called scratch. They taught us scratch from the scratch. They made us understand every feature very beautifully. We actually made a few 2D games. Everyone was very friendly and helpful there. I enjoyed the workshop very much and really hope IEEE-DBIT keeps conducting such entertaining sessions.

The workshop was well organized. The members co-operation was great, everyone was really helpful and the explanation of software was also awesome. I got to learn something new and it was a fun experience. I hope to have more such workshops in future



ATHARVA BONDRE  
(SE-EXTC)

**Event Photographs:**







**Report Prepared by:** Ms. Shraddha Sharad Naik (TE EXTC)

**Report Approved by:** Ms. Gejo Geroje IEEE DBIT Branch Counselor

**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**REPORT ON “CODER'S STRIKE”**  
**EVENT NUMBER 3**

**Topic:** Blender – Professional, Free and Open Source 3D Computer Graphics

**Date & Time:** July 28, 2018, 10.00 a.m. – 5.00 p.m.

**Venue:** VLSI and Embedded System lab, 2<sup>nd</sup> Floor, B Block

**Audience:** 19 Students from SE, 5 Students from TE

**Description:**

Mr. Amey More (BE EXTC) introduced the blender to the participants by showing them a presentation on the same. Blender is a software which is used to create any game or animation in a 3D view.

Discussion on the following points were done:

- Properties Window
- Timeline Window
- User Window

Mr. Vedant Vyawahare (TE EXTC) explained the basics of the software, various commands that are used for making a 3D game and also the shortcuts for the same, which included selection, navigation, modelling, editing curves, changing modes etc. Mr. Vedant had assigned a task to the participants which was to make a chair and a table using the extrude command which everyone was able to perform. Mr. Amey then explained us how to make a game in 3D window using logic editor. The

game was called shooting torus wherein the cube would shoot the monkey with the help of the torus and when the monkey comes in contact with the torus the monkey would disappear. Towards the end Mr Amey gave a small sneak peak about the Augmented Reality which will be conducted on August 4,2018.

**Feedback:**

**SAMARA PIRES**  
(SE-COMPS)

An interesting, informative and interactive workshop was organized on 28<sup>th</sup> July by IEEE-DBIT on blender-a dynamic software that opens up the world of 3D to explore your creativity. one can create animations, motion graphics, video editing, scripting, games and a lot more- the perfect blend indeed! Thanks to IEEE core team for a wonderful learning experience to explore this marvelous tool.

The blender workshop was very well organized. Volunteers were very helpful, the technical aspects were very well explained, and doubts were cleared to my satisfaction. It was fun to learn something new. I really hope that IEEE organizes more workshops like this.



**KEVIN FRANK**  
(SE-MECH)

**Event Photographs:**







**Report Prepared by:** Ms. Shraddha Sharad Naik (TE-EXTC)

**Report Approved by:** Ms. Gejo Geroje IEEE DBIT Branch Counselor

**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**REPORT ON “CODER'S STRIKE”**  
**EVENT NUMBER 4**

**Topic:** Augmented Reality-An interactive experience of real world environment

**Date & Time:** August, 4 2018, 11.30 a.m. – 4.30 p.m.

**Venue:** VLSI and Embedded System lab, 2<sup>nd</sup> Floor, B Block

**Audience:** 15 Students from SE, 5 Students from TE, 4 Students from BE

**Description:**

Mr. Amey More (BE EXTC) introduced the Augmented Reality (AR) software to the participants. AR is basically a technology wherein we can overlay computer generated graphics on camera captured images, giving an illustration that the computer generated was itself a part of captured image. The workshop started with the process of installing the software's required for AR.

Following software were installed:

- Unity 3D for 3D workspace.
- Vuforia for AR packages and building.
- Android Studio and JAVA for the android app building of the project created.

After the installation was completed everyone logged into Vuforia to get their app license key and an image target datasets. This session was to tell the participants as in how to get the license key if they are working on AR in future. Mr. Amey explained us a small project wherein a cube was displayed on the target image.

Mr. Amey then explained us how to build an app and test the output. The participants then imported the apk file to their mobile and tested the output.

Towards the end a common project was built which displayed a poly model and it was rotated using a virtual button and a coded 'C' script.



**Feedback:**

**RAHUL KADAM**  
(SE-MECH)

The subject of the workshop itself was unique and interesting enough to develop a desire to learn and even the guys handled it was commendable there were only a handful of hitches like the code not getting complied or the rotate button not working. Also felt that some more contents could have been taught but I totally get the time constraint apart from that it was a wonderful experience.

The workshop proceeded with an efficient pace enough to grasp the content that was being said. It started a bit late but at the end everything went well and I was happy that I learnt something new and interesting as this! Thank-you IEEE-DBIT for this short yet sweet workshop



**MRINALI PARIDA**  
(BE-EXTC)

**Event Photographs:**





**Report Prepared by:** Ms. Shraddha Sharad Naik (TE-EXTC)

**Report Approved by:** Ms. Gejo Geroje IEEE DBIT Branch Counselor

**DON BOSCO INSTITUTE OF TECHNOLOGY**

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**

**IEEE-DBIT MTTS STUDENT BRANCH**

**REPORT ON “LORAWAN-TECHNOLOGY, SOLUTIONS AND ECOSYSTEM”**

**EVENT NUMBER 5**

**Topic:** LoRaWAN- Technology, Solutions and Ecosystem

**Speaker:** Mr. Abhay Phansikar (Chairperson - IEEE Bombay Section)

**Date & Time:** July 30, 2018. 02:15 p.m. – 04:00 p.m.

**Venue:** Seminar Hall, Fourth Floor, Block -A

**Audience:** 64 students from TE-EXTC, 10 students from BE-EXTC

**Description**

The session began with an introduction given by Mr. Vedant Vyawahare. Mr. Abhay Phansikar then gave us a brief introduction on Internet of Things (IoT) and its applications. IoT are the devices that are connected to the internet without any human intervention and LoRa is the best to serve this purpose. E.g. - Radiation levels, air pollution etc. LoRaWAN is Low Power Long Range Wide Area Network. LoRaWAN is one platform serving all applications. LoRa is a disruptive wireless long range technology. Lora works in nW power range while 10-15kbps is the rate range.

Following points about LoRaWAN networks were discussed:

- Fully bidirectional system
- Standard protocol

- Secured (end to end)
- Easy commissioning
- Built- in mobility
- Network scalability

We were even briefed about the network architecture of LoRaWAN which consisted of connected sensors, network operators and the user. Mr. Abhay then gave a brief description on ADR (Adaptive Data Rate) and why is it good for end devices and sensors.

Towards the end of the session Mr. Abhay enlightened us about how LoRaWAN is useful for an EXTC graduate and also gave us a few ideas for our projects which can be implemented using LoRa.



**Feedback:**

The recent talk based on LoRaWAN was very insightful for us as engineering students as we got to know about another unique and undiscovered aspect of WAN giving us a future scope for improving, understanding and applying this wonderful technology in various fields, most importantly in our day to day lives.

**SOUMYAPRAKASH CHOUDHURY**  
(BE-EXTC)

LoRaWAN was a very informative session where we came across new technology. Mr. Abhay gave us an idea that how small things in our day to day life can be made easier by just using a small chip. Also, it was very productive in terms of our engineering projects. I personally gained a lot of technical knowledge from this session.



**SUMANTU POWALE**  
(TE-EXTC)

**Event Photographs:**





**Vote of Thanks:** Mr.Arnold Sequeira (TE EXTC)

**Report Prepared by:** Ms. Shraddha Sharad Naik (TE EXTC)

**Report Approved by:** Ms. Gejo Geroge IEEE DBIT Branch Counselor



**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**REPORT ON “EVOLUTION OF RADAR”**  
**EVENT NUMBER 6**

**Topic:** Evolution of Radar.

**Speaker:** Mr. Jason Fernandes

**Date & Time:** July 24, 2018; 12:15pm – 1:15pm

**Venue:** EXTC-CR3, A-wing, First floor.

**Audience:** BE-EXTC

**Description:**

The talk began with a welcome speech given by Mrs. Freda Carvalho. Mrs. Freda Carvalho gave an introduction of the speaker Mr. Jason Fernandes to the class. Mr. Jason Fernandes has completed his Diploma in Industrial Electronics from Agnel Polytechnic, Vashi and his Bachelor's from Don Bosco Institute of Technology, Kurla in Electronics & Telecommunication and after pursuing his Masters in Communication & Signal Processing from an institute in Germany, he now works in Automotive Safety Technologies as a System Developer for RadarSensorTechnology.

Mr. Jason Fernandes spoke about the various aspects of Radar technology which included the following:

- Pulse Doppler Radar that determines range to a target using pulse-timing techniques.
- Continuous Wave Radar which is the current Radar technology and has replaced Pulse Doppler Radar in many applications.
- Different Radar Sensors present on board of a car

- Long range radar present in front of the car having a coverage of 200m
- Mid range radar present on the lateral sides of the car having a coverage of 10m
- Ultrasonic sensors at the back of the car for parking.
- Each of these Radar Sensors operate at about 77GHz to 81GHz with power consumption of 4Watts.
- FMCW in which the pulse is designed with a proper upturn and downturn pulse and a using a delay between two signals.
- Concept of Microwave Mixer through which we get an IF frequency.
- FFT which is used to find the rate of change of phase over time.
- MIMO Technology for transmitters and receivers.
- Beam steering which is about changing the direction of the main lobe of the radiation pattern.
- Beam forming in which the sensor arrays are used for reception or transmission of directional signal.
- Eigen Value Decomposition (EVD) through which we can find out the most dominant vectors of a file using MATLAB.

Mr. Jason Fernandes also spoke to the students about his experience in this field of technology, working in SAMEER and the projects he had undertaken as a student. He had done his B.E. Project in “Vehicular Collision Avoidance System” and Master Thesis on “Blind Source Separation algorithm”. Mr. Jason Fernandes encouraged students to get involved with the college about the various resources that they can provide and use it to the fullest.

The talk was concluded by Mrs. Ashwini Kotrashetti, HOD, EXTC Department by handing over a token of appreciation to the speaker.

**Feedback:**

SANJANA PATIL  
(BE-EXTC)

It was quite an informative yet interactive session with Jason. He also shared the insights about living a life in abroad along with managing our studies. He was very polite and answered all the questions in a well constructed manner

It was a very effective session and helped create a wider perception on RADAR. The instructor was very helpful, approachable and encouraging. I particularly liked the easy going atmosphere. He also gave us insights to life abroad after graduation. All the queries were answered by him in a very polite and effectual manner.



RACHITA NAIR  
(BE-EXTC)

**Event Photographs:**





**Report Prepared by:** Mr. Amey More (BE-EXTC)

**Report Approved by:** Ms. Gejo Geroje IEEE DBIT Branch Counselor



**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**REPORT ON “INDUSTRIAL VISIT TO SAMEER”**  
**EVENT NUMBER 7**

**Topic:** Industrial Visit to SAMEER

**Date & Time:** September 28, 2018; 1:00 PM – 5:00 PM

**Venue:** SAMEER – NAVI MUMBAI.

**Audience:** BE-EXTC

**Description:**

The main objective behind the visit was to make the students aware about technology used in different industries. The industry was selectively chosen so that the students could relate and understand the major role played by each one of them.

SAMEER was set up as an autonomous R & D laboratory at Mumbai under the then Department of Electronics, Government of India with a broad mandate to undertake R & D work in the areas of Microwave Engineering and Electromagnetic Engineering Technology. It is an offshoot of the special microwave products unit (SMPU) set up in 1977 at the TATA INSTITUTE OF FUNDAMENTAL RESEARCH (TIFR), Mumbai. SAMEER, Mumbai was setup in 1984. SAMEER has been a pioneer in the development of technology in several areas.

At SAMEER: Class was divided in two groups one group went for designing section and other went for testing section.

In designing section following subsections were shown:

- Fitting Shop where the bending, cutting and drilling of metals is done. Such as copper, brass, aluminium and tungsten.

- Milling section where metals are given required shape for medical applications.(metals are 99% pure)
- Turning and CNC section: NiCro alloy is used here. Finishing of the milling section job is done here.

In testing section following subsections were shown:

- Linear accelerator which is used for treatment of cancer people was shown and working of the same was explained.
- Three control systems: 1. Modulation 2. Stand 3. Gantry
- Vacuum Furnace hall: This has cavity designed for 2998MHz baud rate. It also has vector network analyser for quality check of S-parameters. It also has bakry oven working at 6000rpm providing ionization pump. It has annealing furnace for high vacuum brazing.
- Hydrogen Furnace hall: It has two parts dome structure and nitrogen pump. So first in nitrogen section the outer part of metal piece is heated and then hydrogen is flown over all the copper part at 600-800 degree Celsius.

So after showing this two sections they showed us the presentation about the topics on which research is going on currently in SAMEER and then showed us four labs respectively for four different types of EMI:

- CE(common emission):CE lab which limits the noise voltage on main line.
- RE(radiated emission):Semi-Anechoic Chamber which have ferrite tiles for no reflection to take place since they absorb RF waves.
- CS(common susceptibility):Shield Room which have wooden and galvanic plating so that heat sink takes place.
- RS(radiated susceptibility): Electrostatic Discharge test.

After visiting all the above sections and labs we were able to achieve the above mentioned objective. So, then we had snacks and left the place by taking good learning and knowledge.

**Feedback:**

The IV was very informative. The staff at SAMEER were very helpful and was explaining working of each and every section in detail. Almost all doubts of the students were cleared. Overall very good and informative IV.

The industrial visit to SAMEER helped us to understand the various processes and equipments that are used in industries to manufacture electronic devices like linear accelerator and other microwave systems. The working and other aspects of the research activities were clearly explained by the experts. Also the time allotted for the IV was properly utilized. Overall, it was very informative and good experience.





**Event Photographs:**



**Report approved by:** Ms. Shruti Mehta (BE-EXTC) and  
Ms. Archana Madivala (BE-EXTC)

**Report approved by:** Ms. Gejo Geroge IEEE DBIT Branch Counselor

**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**

**REPORT ON “WEBSITE DEVELOPMENT USING WORDPRESS”**

**EVENT NUMBER 8**

**Topic:** Website development using WordPress.

**Speakers:** Ms.Neha Patil, CEO of Whole New Level.

**Date & Time:** September 07, 2018 & September 08,2018. 09:00 a.m. - 05:00 p.m.

**Venue:** Shah and Anchor College of Engineering.

**Audience:** 42 students.

**Description:**

IEEE-DBIT in collaboration with IEEE-SAKAC had organised a hands on workshop on Website Development using WordPress. Ms. Yogita started the event with a welcome speech and introduced Ms. Neha Patil – CEO of Whole New Level to the audience. Ms. Neha explained to the participants the procedure to develop a website right from the basics to the complex functions.

This included the following protocol

- Installing themes
- Installing plugins
- Uploading media
- Developing pages
- Customizing plugins using PHP & CSS.

This event developed an interest in the participants to make a website on their own and also shaped them to be budding designers and future developers.

The students were given an opportunity to showcase their skills by competing them in a website designing competition that marked the beginning of Day on 8<sup>th</sup> September. A lot of enthusiasm was seen amongst the students as they designed their own website based on different domains. This interactive session ended on a high note by felicitation of the speaker and distribution of the certificates.

**Feedback :**

**NIKITA BHAGALE**  
(T.E- EXTC)

As we attended whole workshop of web development using word press. We got to know many things about development of website and even developed one. The speaker cleared all our doubts. We also had one on one interaction with her. It was really a great experience and we got to know many new techniques.

Overall the speaker was good. We had a very good interactive session with her. We got to know how to make an effective website without coding and even how to host it for free. Also the management was very punctual about time and the activities conducted.



**SAMUEL BRAYEL D'SILVA**  
(SE-MECH)

**Event Photographs:**







**Vote of Thanks:** Ms. Yogita Kosla

**Report Prepared by:** Ms. Manisha Gupta (TE-EXTC)

**Report approved by:** Ms. Gejo Geroje IEEE DBIT Branch Counselor



**DON BOSCO INSTITUTE OF TECHNOLOGY**

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**

**IEEE-DBIT STUDENT BRANCH**

**REPORT ON “DESTINATION MOON: BUILDING OF A MOONSHOT”**

**EVENT NUMBER 9**

**Topic:** Destination Moon: Building of a Moonshot.

**Speakers:** Mr. Prithvi Gautham, Mr. John .K. John, Mr. Hari Prasad Gokul

**Date & Time:** September 15, 2018. 10:00 a.m. – 01:00 p.m.

**Venue:** Mondini Hall, Fourth Floor, Block – C

**Audience:** 132 students (intercollege)

**Description:**

The session started with an inaugural ceremony anchored by Mr. Arnold (TE-EXTC). Mr. Satyanarayan briefed us about team Indus. He stated that, the team consists of a team of professionals from various backgrounds in science, technology, finance and media that came together in 2010 with the aim of winning the Google Lunar X Prize competition announced in 2007. Although the competition ended in 2018 without a winner, Team Indus is still working towards developing and launching their lunar rover mission sometime in 2019.

Mr. Prithvi then explained us the mission hardware and the qualified structure of the rover. He also explained us that the legs are a crucial part in building of a rover as it makes a huge difference between soft landing and hard landing. He also showed us various pictures and videos of the rovers build by team Indus till date. He even showed us ECA, ‘Ek Choti si Asha’, the micro-class exploration rover

tailored to explore the lunar surface. Mr. John told us about the operating command of the rover and even showed us an Apollo launch pad video for better understanding. Earth to moon landing were shown through different mediums. He also made us aware of the new technologies that are used in making a mission successful and explained us how to build a spacecraft.

Towards the end team Indus gave us a live demonstration of how does a rover work, by showing it's backward, forward, rightwards and leftwards movements.

**Feedback :**

**TWARITA KATKE**  
(TE-MECH)

Shivajirao Jondhale College of Engineering

The seminar “Destination Moon” conducted by team Indus was very informative. I felt the time spend at the seminar was worth everything. Every aspect of the difficulties faced while making rover discussed while making a rover was discussed in an elaborative way, it was fascinating to hear them speak about the surface of the moon and space conditions.

Alamuri Ratnamala Institute of Engineering and Technology

The event was very systematic and properly organized by IEEE-DBIT. I build up some good friends from different college and it was also a good call for the speakers. I personally enjoyed each and every aspect of the event and also got to learn new technologies used in making a rover. Thank-you IEEE-DBIT for this marvelous experience!



**YASH TRIPATHI**  
(TE-COMPS)

**Event Photographs:**





**Vote of Thanks:** Ms. Ashwini Kotrashetti (HOD-EXTC)

**Report Prepared by:** Ms. Shraddha Sharad Naik (TE EXTC)

**Report approved by:** Ms. Gejo Geroge IEEE DBIT Branch Counselor

# **MINUTES OF MEETINGS**



**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**MINUTES OF MEETING**

**Date** : July 16 , 2018

**Time**: 1:30p.m.-2:00p.m.

**Venue**: Office

**List of Council Members present:**

IDSC Branch Counselor	Mrs.Gejo George
Chairperson	Mr.Amey More
Vice chairperson	Mr.Akash Rao
WIE Chairperson	Ms.Sanjana Patil
Secretary	Ms.Aishwaraya Arun
Event Management Team	Mr.Arnold Sequiera
	Ms.Manisha Gupta
Web Developer	Ms.Bhoomi Patel
Publicity	Mr. Vedant Vyawahare
Reporting Head	Ms.Shraddha Naik

**Points discussed:**

- The meeting started at 1.30 p.m. Ms. Gejo George briefed us about all the events that will take place in this semester
- The workshop exclusively for core members of Scratch, Blender, Augmented Reality software will be held on 18<sup>th</sup> July by Mr. Amey More (BE EXTC ) and Ms. Sanjana Patil (BE EXTC).
- The publicity for the same will be done by 20<sup>st</sup> July.

- The workshop will be broken down in 3 parts. All of them will be linked. Each of them will be held on Consecutive Saturdays .i.e. scratch will be held on 21<sup>st</sup> July . Blender on 28<sup>th</sup> July and Augmented Reality on 04<sup>th</sup> August.
- The lab availability for the event will be done by 17<sup>th</sup> July.
- The registration fees for IEEE members is Rs. 20 refundable and for non IEEE members is Rs. 50
- Certificate will be provided at the end of the event

**Report Prepared by:** Ms. Shraddha Sharad Naik (TE EXTC)

**Report Approved by:** Ms. Gejo George –IDSB- Branch Counselor

**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**

**IEEE-DBIT STUDENT BRANCH**

**MINUTES OF MEETING**

**Date** : March 10 , 2018

**Time**: 12:40p.m.-1:15p.m.

**Venue**: RF Lab, First Floor , Block-B

**List of Council Members present:**

Chairperson	Mr. Amey More
Secretary	Ms. Aishwaraya Arun
Event Management Team	Mr. Arnold Sequiera
	Ms. Manisha Gupta
Web Developer	Ms. Bhoomi Patel
Publicity	Mr. Vedant Vyawahare
Reporting Head	Ms. Shraddha Naik

**Points discussed:**

- On 10<sup>th</sup> March, workshop on photoshop was conducted exclusively for core members. Ms. Naru Jai explained us the function of each and every tool of the software. Mr. Balaji Dontha explained us how to make posters for an event.
- Mr. Vedant Vyawahare is going to work on the membership publicity and will note the points we need to say while publicizing. The publicity will be in the form of presentation and also verbal communication i.e. The write-up for publicity will be done by 11<sup>th</sup> March with the approval of Mrs. Gejo George
- The publicity for IEEE membership will begin from 12<sup>th</sup> March. Farheen Shaikh (BE EXTC) will share her personal experience of being a part of IEEE family and getting a scholarship for her future studies from IEEE

- Everyone will get an idea for the workshop/events by 18<sup>th</sup> March

**Events suggested by the core team for this semester:**

- 2 talks (outsource)
- Software based lectures, as in how to make program in that particular software.
- Finger print scanner used in mobiles.
- Different techniques of PCB designing

**Task assigned to the council members:**

Membership Publicity	Mr. Amey More
	Mr. Arnold Sequiera
	Mr. Vedant Vyawahare
Certificates	Ms. Manisha Gupta
	Ms. Rachita Nair
Colosseum Event Report	Ms. Sanjana Patil
Members 2018 List	Ms. Aishwaraya Arun

**Report Prepared by:** Ms. Shraddha Sharad Naik (SE EXTC)

**Report approved by:** Ms. Gejo Geroge IEEE DBIT Branch Counselor

**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**MINUTES OF MEETING**

**Date** : July 16 , 2018

**Time**: 1:30 p.m.-2:00 p.m.

**Venue**: Office, Block D, First Floor

**List of Council Members present:**

IDSC Branch Counsellor	Mrs. Gejo George
Chairperson	Mr. Amey More
Vice chairperson	Mr. Akash Rao
WIE Chairperson	Ms. Sanjana Patil
Secretary	Ms. Aishwaraya Arun
Event Management Team	Mr. Arnold Sequeira
	Ms. Manisha Gupta
Web Developer	Ms. Bhoomi Patel
Publicity	Mr. Vedant Vyawahare
Reporting Head	Ms. Shraddha Naik

**Points discussed:**

- The meeting started at 1.30 p.m. Ms. Gejo George briefed us about all the events that will take place in this semester.
- The workshop exclusively for the core members on Scratch, Blender and Augmented Reality software's will be held on July 18 by Mr. Amey More (BE EXTC) and Ms. Sanjana Patil (BE EXTC).
- The publicity for the same will be done by July 20, 2018.

- The workshop will be split into 3 parts. Each of which will be held on consecutive Saturdays i.e. Scratch will be held on 21<sup>st</sup> July, Blender on 28<sup>th</sup> July and Augmented Reality on 04<sup>th</sup> August, 2018.
- The venue arrangements need to be done by 17<sup>th</sup> July inclusive of software installations.
- The registration fees for IEEE members is Rs. 20/- refundable and for non- IEEE members is Rs. 50/-.
- Certificate will be provided at the end of the third event.

**Report Prepared by:** Ms. Shraddha Sharad Naik (TE EXTC)

**Report approved by:** Ms. Gejo Geroje IEEE DBIT Branch Counselor



**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**MINUTES OF MEETING**

**Date** : August 20 , 2018

**Time**: 1:30p.m.-2:00p.m.

**Venue**: BEE lab, 'A'Block

**List of Council Members present:**

Chairperson	Mr.Amey More
Vice chairperson	Mr.Akash Rao
WIE Chairperson	Ms.Sanjana Patil
Secretary	Ms.Aishwarya Arun
Event Management Team	Mr.Arnold Sequiera
	Ms.Manisha Gupta
Web Developer	Ms.Bhoomi Patel
Publicity	Mr. Vedant Vyawahare
Reporting Head	Ms.Shraddha Naik

**Points discussed:**

- The “No Plastic Drive” will be held for FE before August 31 and everyone has to be prepared for the same. The further details about the event will be decided by August 24.
- The highlights and benefits of IEEE will be given by Mr. Akash Rao and Mr. Arnold Sequeria on August 24.
- IEEE-SAKEC in collaboration with IEEE-DBIT is going to conduct a workshop on web development using Word-Press. \_The publicity for the

same will start from August 27. The publicity will be done by Mr. Akash Rao and Mr. Arnold Sequeria.

**Tasks assigned to the core members:**

FE Orientation PPT	Mr.Akash Rao
	Mr.Arnold Sequiera
Permissions and publicity	Mr. Vedant Vyawahare
Feedback analysis of AR	Ms.Manisha Gupta
Certificates left of coder's strike	Ms.Bhoomi Patel
LOA of previous core	Ms.Shraddha Naik
Filing of the docs	Ms.Aishwarya Arun

**Report Prepared by:** Ms. Shraddha Sharad Naik (TE EXTC)

**Report approved by:** Ms. Gejo Geroge IEEE DBIT Branch Counselor

**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**MINUTES OF MEETING**

**Date** : September 06 , 2018

**Time**: 1:30p.m.-2:00p.m.

**Venue**: BEE lab, 'A'Block

**List of Council Members present:**

Chairperson	Mr.Amey More
Vice chairperson	Mr.Akash Rao
WIE Chairperson	Ms.Sanjana Patil
Secretary	Ms.Aishwarya Arun
Event Management Team	Mr.Arnold Sequiera
	Ms.Manisha Gupta
Web Developer	Ms.Bhoomi Patel
Publicity	Mr. Vedant Vyawahare
Reporting Head	Ms.Shraddha Naik

**Points discussed:**

- The volunteers going for web development using word-press conducted in SAKEC are Mr. Vedant on September, 07 and Ms. Manisha, Mr. Akash, Mr. Vedant on September, 08.
- The photocopy of the certificates of the participants attending the workshop will be collected by Ms. Rachita till September, 10.
- Common entry pass for the participants will be made by Ms. Bhoomi for the moonshot event which will be conducted on September, 15.

**Tasks assigned to the core members for ‘Destination to moon’ event:**

Permission and venue arrangements	Mr.Akash Rao
	Mr.Arnold Sequiera
Publicity	Mr. Vedant Vyawahare
Food for the guests and participants	Ms.Aishwarya Arun
	Ms.Shraddha Naik
Registration desk	Ms.Manisha Gupta
	Ms.Bhoomi Patel
IEEE volunteers	Ms.Manisha Gupta

**Report Prepared by:** Ms. Shraddha Sharad Naik (TE EXTC)

**Report approved by:** Ms. Gejo Geroje IEEE DBIT Branch Counselor

**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**  
**MINUTES OF MEETING**

**Date:** September 25, 2018

**Time:** 1:30p.m.-2:00p.m.

**Venue:** BEE lab, 'A' Block

**List of Council Members present:**

Chairperson	Mr.Amey More
Vice chairperson	Mr.Akash Rao
WIE Chairperson	Ms.Sanjana Patil
Event Management Team	Mr.Arnold Sequiera
	Ms.Manisha Gupta
Web Developer	Ms.Bhoomi Patel
Publicity	Mr. Vedant Vyawahare
Reporting Head	Ms.Shraddha Naik

**Points discussed:**

- Filing of the documents will be done by Ms. Aishwarya Arun by 28<sup>th</sup> September, 2018.
- Feedback form for “Web Development” will be circulated by Ms. Rachita Nair and report for the same will be done by Ms. Manisha Gupta.
- Post event photographs and certificates for the volunteers of “Destination Moon” event will be done by Ms. Bhoomi Patel.
- The “Destination Moon” expense sheet will be prepared by Ms. Rachita Nair.

- Poster for “Wireless System” will be done by Ms. Bhoomi Patel by 27<sup>th</sup> September, 2018.
- Technical fun games for IEEE Day will be suggested by core members by September 28, 2018.

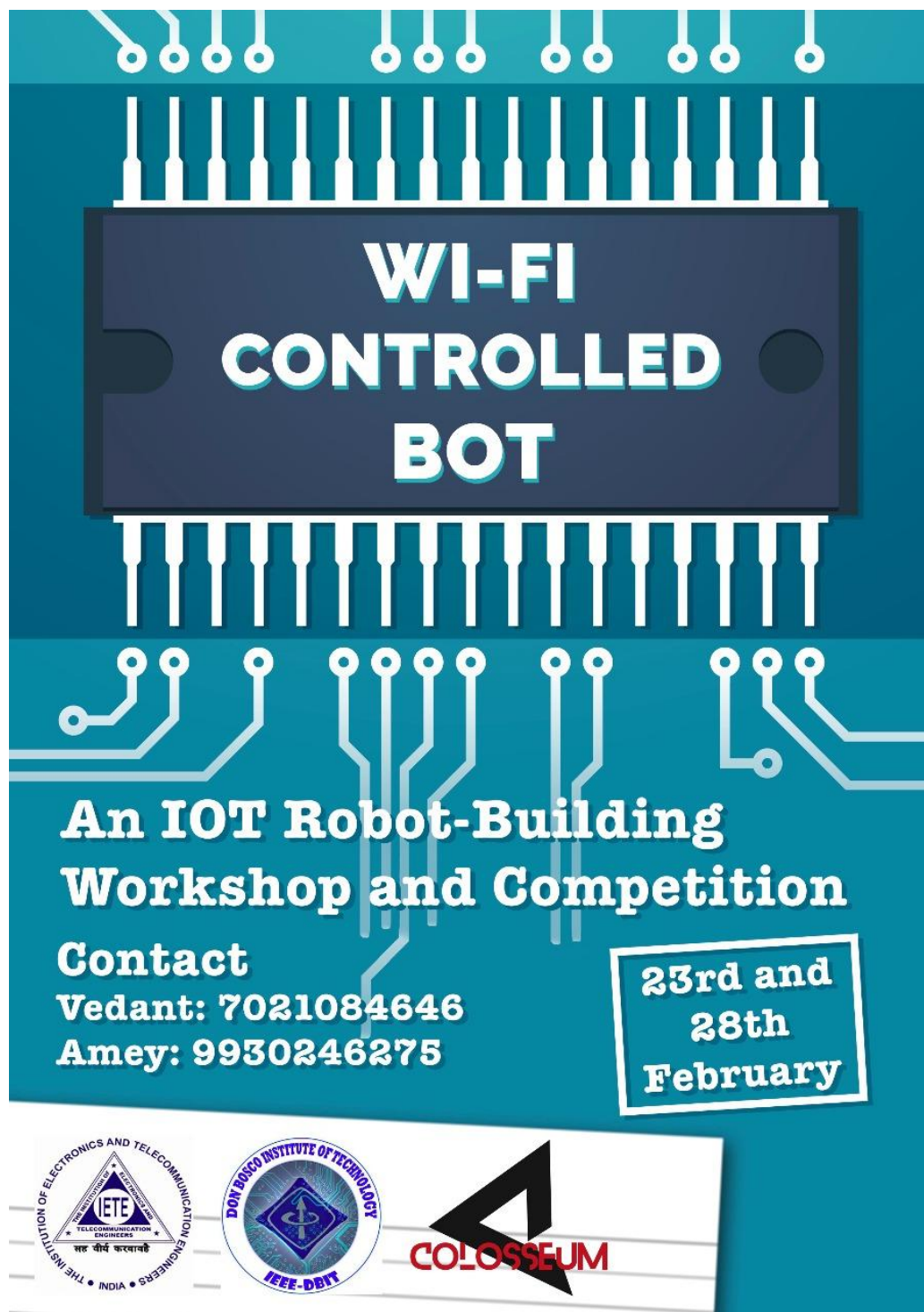
**Report Prepared by:** Ms. Shraddha Sharad Naik (TE EXTC)

**Report approved by:** Ms. Gejo Geroge IEEE DBIT Branch Counselor



# EVENT POSTERS

## WI-FI CONTROLLED BOT






**WI-FI  
CONTROLLED  
BOT**

**An IOT Robot-Building  
Workshop and Competition**







**Contact**  
**Vedant: 7021084646**  
**Amey: 9930246275**

**23rd and  
28th  
February**


  

## CODER'S STRIKE

### SCRATCH, BLENDER & AUGMENTED REALITY

  <b>SCRATCH</b> Create your own Interactive Stories, Games and Animations <b>Date:</b> 21 July, Saturday  Scan me Registration Fees: IEEE Members (Refundable): ₹ 20 NON-IEEE Members: ₹ 50 Time: 9:00 AM Onwards Venue: Tejas Lab, 2nd Floor, B-wing	 <b>IEEE-DBIT STUDENT BRANCH PRESENTS CODER'S STRIKE</b>  <b>BLENDER</b> Interactive 3D Applications and Video Games. <b>Date:</b> 28 July, Saturday	 <b>Augmented Reality</b> Real World Environment Objects That Are "Augmented" By Computer-Generated Perceptual Information. <b>Date:</b> 04 August, Saturday <b>Contact:</b> Akash: 9320228649 Rachita: 7506003466
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## WEBSITE DEVELOPMENT USING WORDPRESS

**IEEE-DBIT STUDENT BRANCH**  
IN COLLABORATION WITH  
**IEEE-SAKEC**  
PRESENTS A HANDS-ON WORKSHOP ON  
**WEB DEVELOPMENT USING WORDPRESS**

School Code: 61051  
**IEEE SAKEC**  
Discover the Professional in You

**KEY FEATURES**

- PAID INTERNSHIP OPPORTUNITY
- CERTIFICATES

**WEBSITES BASED ON WORDPRESS**

- Facebook Newsroom
- Walt Disney
- Official Starwars Blog
- Mercedes Benz


**REGISTRATION FEES INCLUDES LUNCH FOR BOTH THE DAYS & FEW IEEE GOODIES**




**SPEAKER**

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**NEHA PATIL**  
CEO  
WHOLE NEW LEVEL

 **7<sup>th</sup> - 8<sup>th</sup> SEPTEMBER, 2018.**

 **Shah & Anchor Kutchhi College of Engineering  
Chembur**


 **VEDANT: +91 8879588422**

 **MANISHA: +91 7506650101**

 **IEEE : ₹ 175 /-  
NON-IEEE : ₹ 250 /-**

**RACHITA : +91 7506003466**



**DESTINATION MOON : BUILDING OF A MOONSHOT**The poster features a large, detailed image of the Moon in a dark sky. In the foreground, the silhouette of a lunar lander is visible on a dark, rocky surface. To the left of the lander, the text 'TEAM INDUS' is written in large, bold, white letters. Below this, the names 'Prithvi Gautham', 'John K John', and 'Hari Prasad Gokul' are listed. To the right of the lander, there is a small, framed portrait of a man in a military uniform. Below the portrait, the text 'Commemorating Engineer's Day' is written in yellow, followed by 'Date & time: Saturday, September 15, 2018 & 10am' in blue, and 'Don Bosco Institute of Technology, Kurla (w), Mumbai' in white. At the bottom left, there is a paragraph of text about Team Indus's mission. At the bottom right, there is a small image of a lunar rover. The bottom of the poster features the IEEE Foundation logo and the IEEE India Council Bombay Section logo.

# Destination Moon

## *BUILDING OF A MOONSHOT*

**TEAM  
INDUS**

Prithvi Gautham  
John K John  
Hari Prasad Gokul

**Commemorating Engineer's Day**  
**Date & time: Saturday, September 15, 2018 & 10am**  
Don Bosco Institute of Technology, Kurla (w), Mumbai

India's aerospace startup **Team Indus** is attempting the first ever soft-landing on the Moon by any private entity. An unbelievably challenging feat that only the USA, USSR and China have achieved via national space programmes with billion-dollar budgets and decades of prior space experience. This Engineer's Day, **ECA** or '*Ek Choti si Asha*', the micro-class exploration rover tailored to explore the lunar surface is coming to Mumbai! Join Team Indus engineers as they share the journey of building a moonshot – from the science and engineering behind the mission to the challenges of building a spacecraft and a space-grade rover. All are Welcome.

Furthering Indian perception of IEEE  
**IEEE Foundation**

For details: [webmaster@ieeebombay.org](mailto:webmaster@ieeebombay.org)  
**IEEE IN DIA COUNCIL BOMBAY SECTION**