DON BOSCO INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION

IEEE-DBIT STUDENT BRANCH

Report on "STEM ANTARIKSH" – "Outer Galaxies_ Astronomy Education" sponsored by IEEE Bombay Section

Topic: "Outer Galaxies_ Astronomy Education"

Date: 14th September, 2023

Time: 8:00 am to 11:30 am

Venue: Karthika High School, Kurla

Speaker: IEEE Team

Objective: Knowledge Rover, outer astronomy, Planets, space and engineering fields

- Knowledge of Rover, Planet, Space.
- Easy demonstration of Rover.
- Increase motivation towards engineering.
- Students will get hands on experience on Rovers.
- Interesting Facts of ISRO, NASA, ASTRONOMY.

Description:

- IEEE-DBIT Student Chapter arranged a workshop of "*STEM ANTARIKSH OUTER GALAXIES ASTRONOMY EDUCATION sponsored by IEEE Bombay Section* for class of 8th students on14th September, 2023.

- The IEEE-DBIT along with S.T.E.M. volunteers reached Karthika High Schoolat 8:20 AM. The event was commenced at 8:34 AM

- Mr. Umer Shaikh (IEEE-DBIT Chairperson) was the host for the workshop. He began by interacting with students by asking questions. Questions included were about what children aspired to become in future and asking about gravity and blackhole and space. It was followed by the introduction of the team.

- The microphone was passed to Miss Dibyarupa. Miss. Dibyarupa gave an introduction of Solar System. Furthermore, she gave a brief explanation of Sun, Mercury, Venus, Earth, Moon, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto. To make the workshop interactive the students who answered correctly were given chocolates.

- Next topic was Big Bang Theory, Gravity, Light Year. She also taught them logical and mathematical expressions. She asks some questions to keep the students active. And Students were so Brilliant and they answer each and every question so enthusiastically. They were listening courteously to each IEEE Volunteer.

- Miss. Dibyarupa handed the microphone to Miss Aanaya and Miss Khushi. Miss Aanaya and Miss Khushi gave self-introduction and started their topic Blackhole in details. And even showed the Blackhole concept video forbetter understanding

- And they told a lot of facts, they also told the students to read the facts and to make the workshop interactive the students who answered correctly were given chocolates.

- Miss Aanaya and Miss Khushi handed the microphone to Miss Zubia. Miss Zubia introduced the Achievements. Such as Sputnik, Chandrayan 1(0ct 2008), Chandrayan 3 (5th Aug 2023), Mangalyaan, Voyager 1 (Nov 2008), First-ever image of blackhole, James Webb telescope catches glimpse of possible first ever Dark Star, Pictures taken by Hubble Telescope, White Dwarf of stars, Juno Satellite, Zond Satellite, Aditya -L1 (2nd Sep2023).

- And she asked some question on ISRO and NASA to students and also given the chocolates and also told the Facts of ISRO and NASA.

- Miss Zubia handed the microphone to Miss Suhaani. Miss Suhani introduced to Instruments used for astronomy, such as COS & STI'S, Flyby Spacecraft,

Atmospheric Spacecraft. And she told some facts and ask some questions.

- Miss Suhaani handed the microphone to Mr. Karthik. Mr. Karthik introduced to Rover.

- Mr. Karthik explained about the ROVER and the recently successful lander Chandrayan 3 Rover and Lander.

- The IEEE TEAM made a Rovers for the better understanding of the students and they should get interest in engineering field. He explained about the hardware and software components.

- Such as Arduino, and sensor used for making the Rover re NRF Sensor, BMP Sensor, DHT Sensor, IR Sensor. He also showed some video and photos of making Rovers.

- IEEE Technical Team was working on Rovers connections and kits testing and checking the Software as well as Hardware. Technical Team Mr. Mohd Raza and Mr. Girish Sangare.

- After giving proper details about rovers and they hardware and software components. IEEE Team Started the hands on or Demonstration session To the Students.

- The students were divided into 4 groups for demonstration of Rover. Each group were given 2 volunteers for explaining and the both Hardware and software and its working.

- The live working of rover, how the rover takes turn by its own when he detects the obstacles. And the Transmitting and receiver concept, where the transmitter transmit high temperature and the receive the accurate readings of temperature on receiver on software.

- Students also got to learn about rover lander. And also got the chance for use the rover. Group 1 was handed by Prem and Suhaani, Group 2 Karthik and Zubia, Group 3 Dibyarupa and Raza, Group 4 Tanmayee and Prerana.

- After the demonstration sessions, Mr. Karthik handed the microphone to Miss Prerana. She told us about the Story of moon formation. She ended her session with some facts and some questions and chocolates for correct answers.

- Miss Prerana handed microphone to Umer (IEEE-DBIT Chairperson). He taken the Recap of whole session and topics which were explain in Workshop.

- Tanmayee started distributing the Feedback Form to students. Ended the session by the Vote of Thanks by Umer (IEEE-DBIT Chairperson). As IEEE Team given on rover kit to Karthika school for the students.

- Lastly Karthika school students and Faculty given a vote of Thanks and momento to IEEE Team and given snacks and gifts.

- Here we Successfully ended the Day 1 of STEM ANTARIKSH.

Summary of session analysis:

From the analysis we can determine, that the majority of the attendees were students. Most of the participants have responded that the session was relevant and well organized. The questions asked during the webinarwere answered in appropriate and satisfactory manner. The attendees agree that the overall session was valuable and informative. As reflected by the feedback, decent number of attendees felt that they can now better understand their measuring equipment and the measurement mechanics under practical conditions. Significant number of people are interested in participating in future webinars.

Feedback of session from students:

28 students attended the session. They found the session very interesting. Here is a static analysis of feedback of the session.

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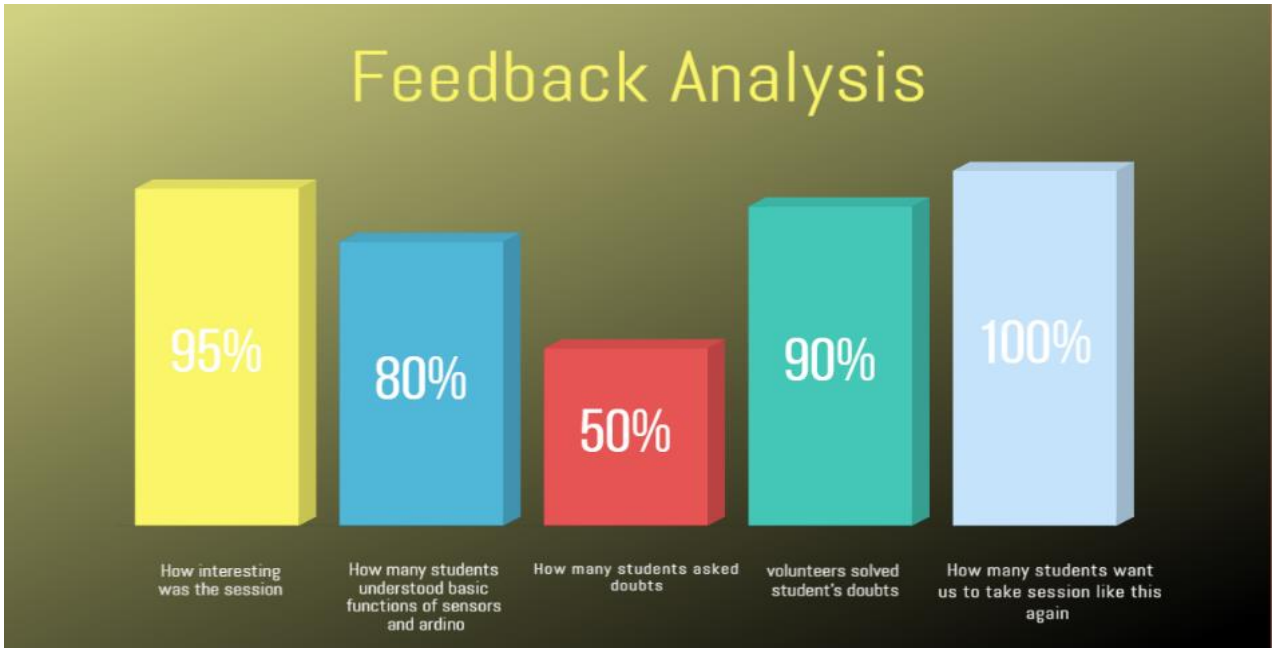

<u>Some picture of the event:</u>

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Report Approved by: Prof. Freda Caravalho, IEEE-DBIT BRANCH COUNCIL.

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