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

**IEEE-DBIT STUDENT BRANCH**

Report on “What is my measurement equipment actually doing?”

Topic: “What is my measurement equipment actually doing?”

**Date:** 11th March, 2022

**Time:** 07:00 pm to 08:00 pm

**Venue:** Zoom Meeting (Online platform)

**Link for webinar:** <https://us02web.zoom.us/j/87204459114?pwd=R1VOMm5NQ29Qd0lNMjFRektWM2lHdz09>

**Speaker:** Dr. Jon Martens, Engineering fellow, Anritsu San Jose, California, USA.

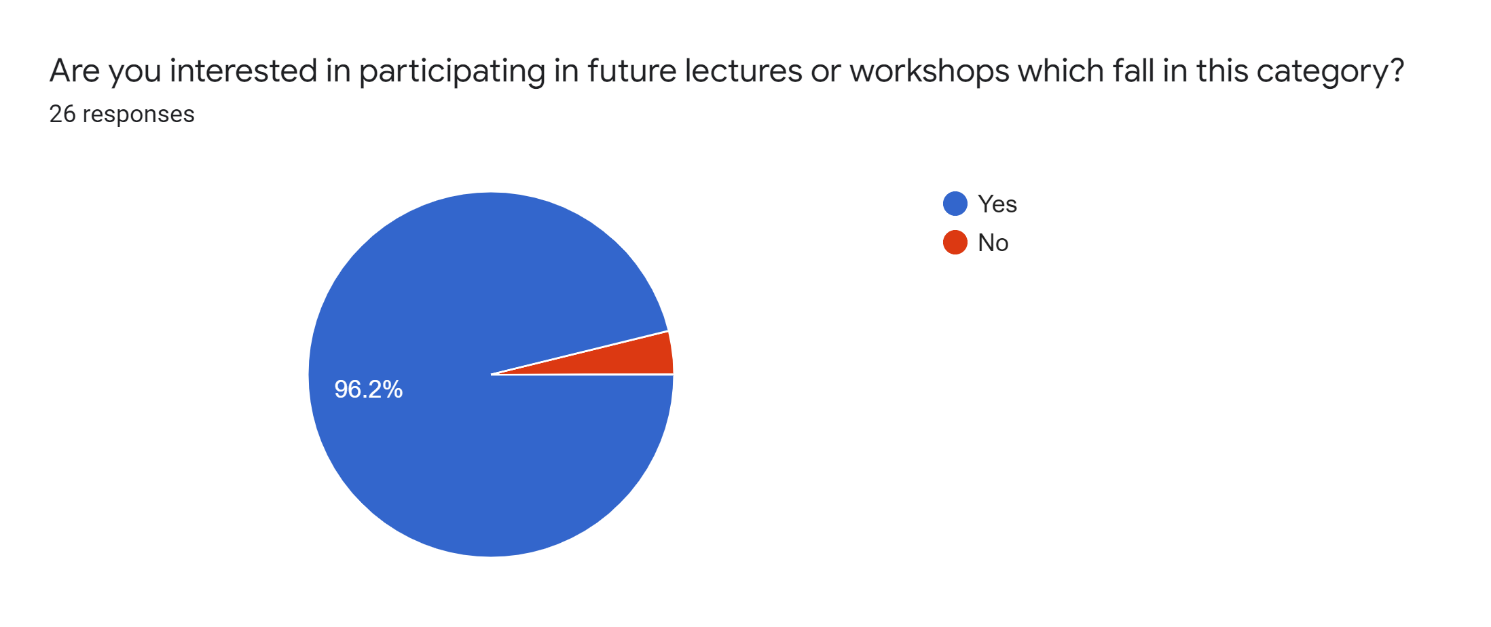
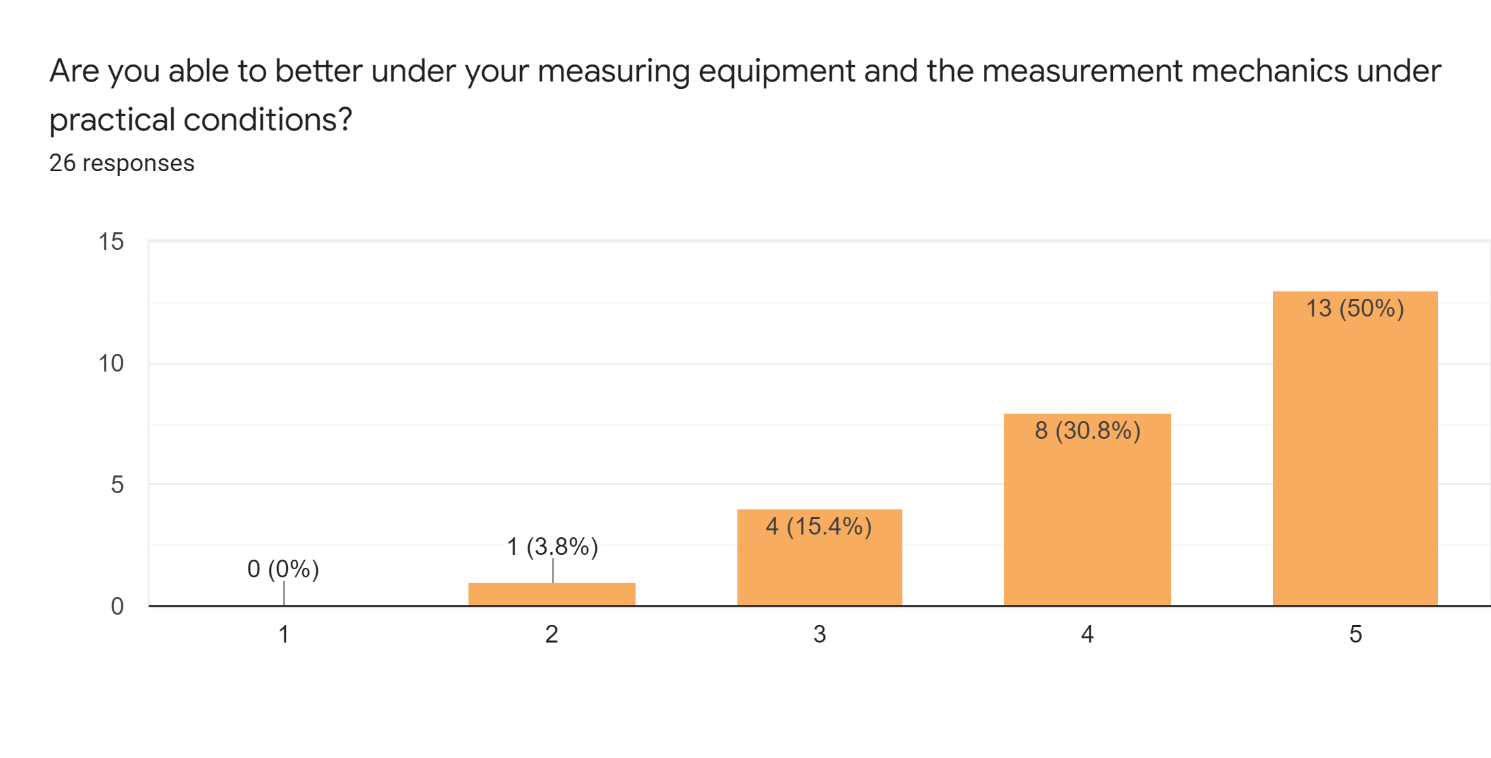
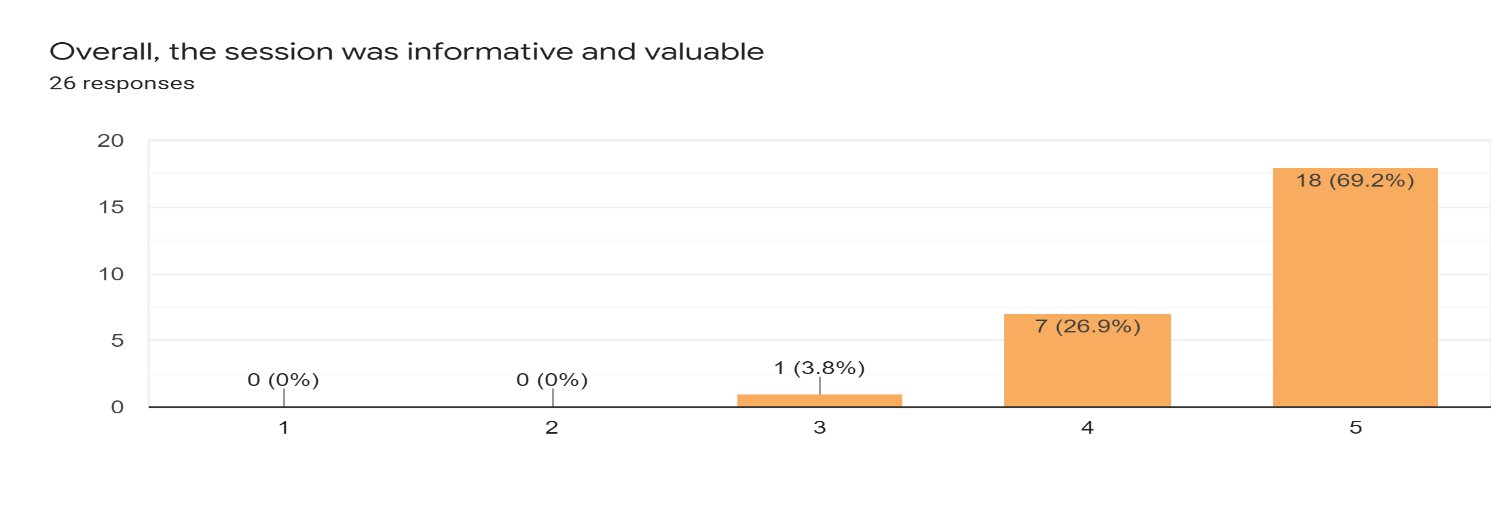
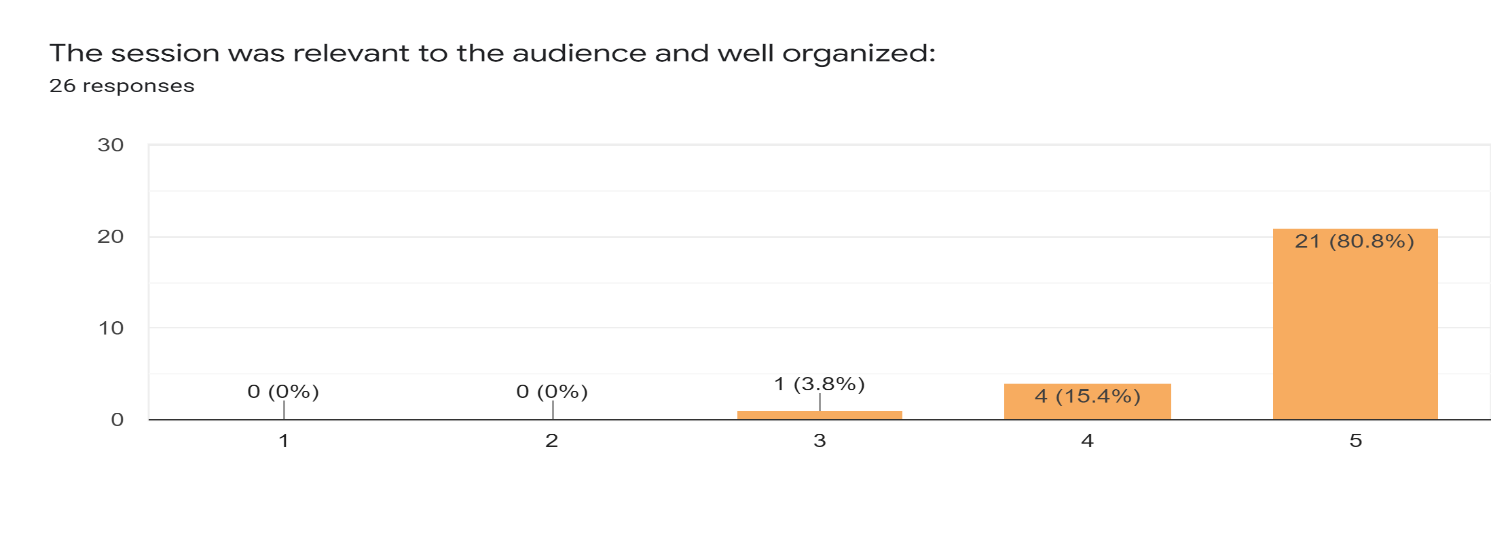
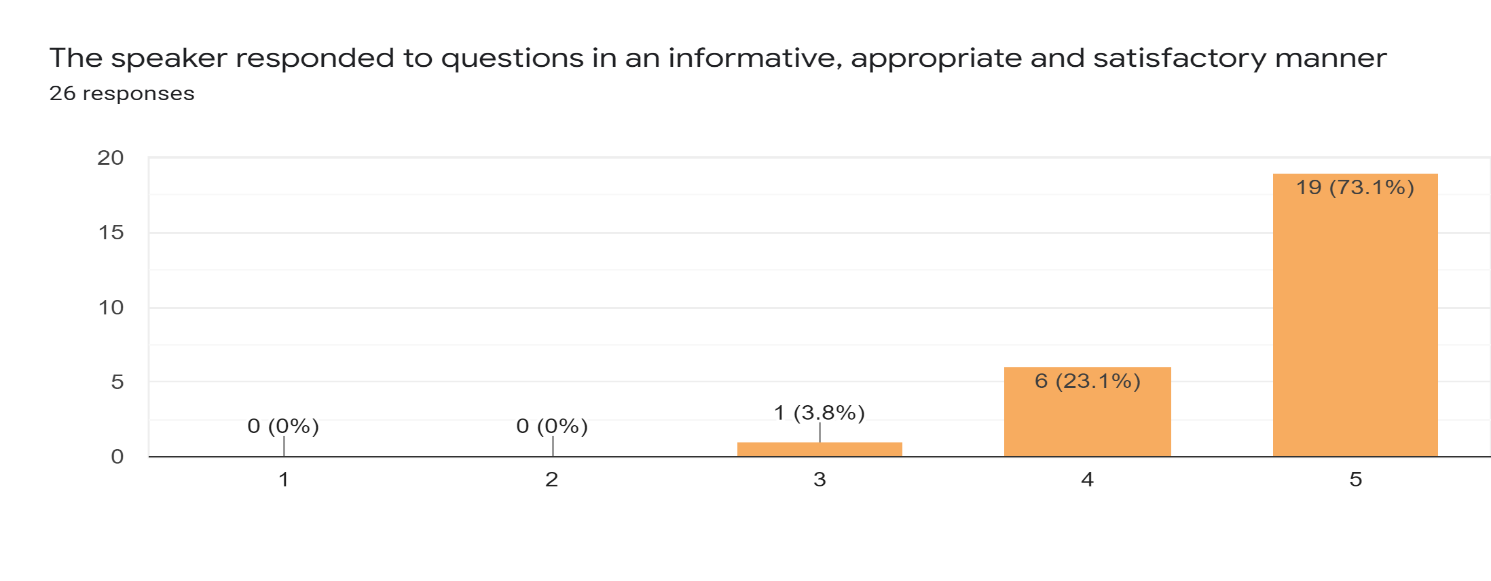
**Objective:** Understanding the implications of 5G/6G, mm-wave and related applications.

# Description:

* IEEE Bombay Section MTTS Chapter in association with IEEE DBIT MTTS Student Chapter arranged a webinar on “*What is my measurement equipment actually doing?*” on 11th March,2022.
* The session was commenced by Prof. Ashwini Kotrashetti, HOD (Head of Department) of DBIT, EXTC department by extending warm greetings to everyone present for the webinar.
* It was then followed by Dr. Rekha Labade giving a brief introduction of Dr. Jon Martens who was the speaker for this webinar.
* After the commencement, Shruti Ghokale, IEEE-DBIT Chairperson, took over as the host for the rest of the session. The host then addressed the speaker for the day – Dr. Jon Martens.
* Dr. Jon introduced himself to attendees of the meet. He is a well acknowledged person who received the BSEE, MSEE and Ph.D. in Electrical Engineering from the University of Wisconsin.
* Dr Jon Martens began by giving an introduction about the topic followed by diving into a detailed and thorough explanation about the instruments.
* He talked about how the current microwave and high frequency instrumentation can perform many tasks behind the scenes, even more so in the mm-wave and high modulation rate regimes.
* He explained that these are critical for new communications, imaging, and related application.
* Dr. Jon Martens also put emphasis on the easiness to lose track of how the equipment, the processing algorithms, the setup and the signals are interacting.
* Furthermore**,** he also spoke about exploring measurement mechanics within some common instrumentsunder practical conditions which may be easier to understand where sensitivities or anomalies might increase**.** He described how to mitigate them and how the hardware has been evolving.
* Dr. Jon Martens explored through a study of example architectures and measurements, including those in the 100+ GHz range and those with wide modulation bandwidths where linearity, dynamic range and other physical metrics are stressed even more, mechanisms and ideas for better measurements.
* After concluding the address, the webinar was open to Q&A session with participants. All the questions posed by participants were meticulously answered by Dr. Jon Martens.
* After the Q&A session, the speaker discussed overall about the webinar and shared the experience about the webinar.
* The session was concluded with the vote of thanks delivered by Prof. Ashwini Kotrashetti Hod (Head of Department) DBIT, EXTC department and Dr. Rekha Labade.
* In the end, the participants were requested to fill the feedback form which was circulated during the meeting and in the IEEE core WhatsApp group.

**Feedback Analysis:**

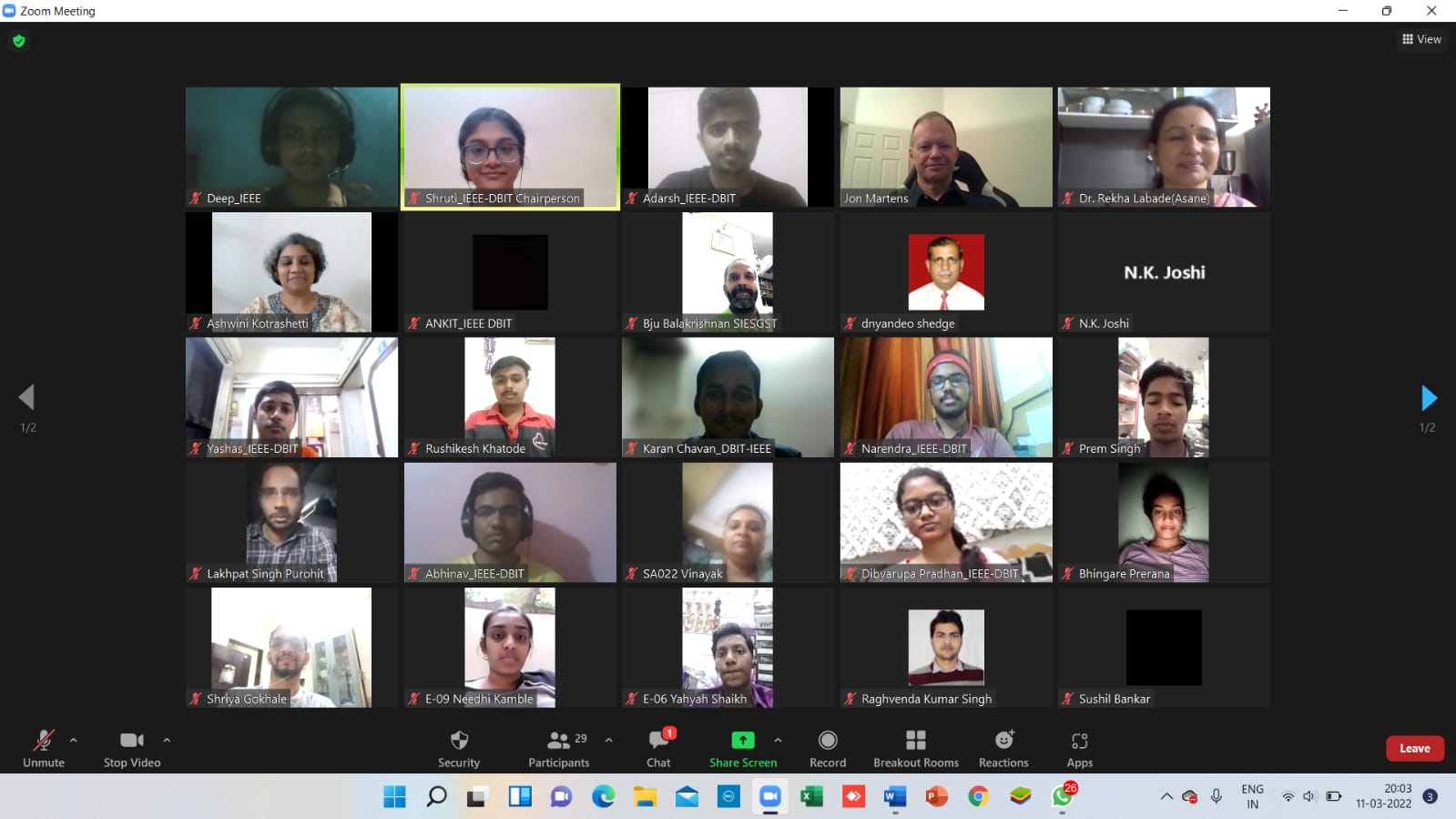
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**Summary of webinar analysis:**

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 webinar were 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 workshops and webinars.

**Picture from the webinar:**

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**Event Poster:**

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**Report Prepared by:** Mr. Omkar S. Mundhe and Ms. Aveesah Siddiqui- IEEE-DBIT- REPORTING MEMBERS

**Report Approved by:** Prof. Gejo George, IEEE-DBIT BRANCH COUNCIL