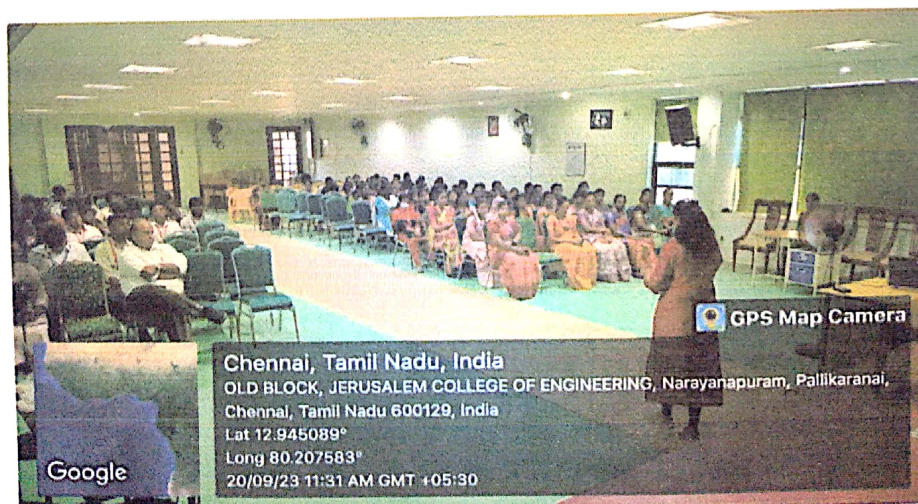
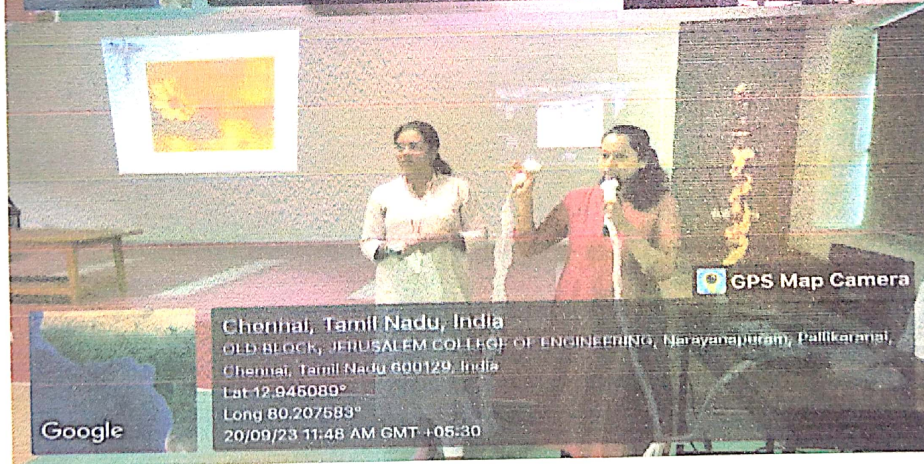
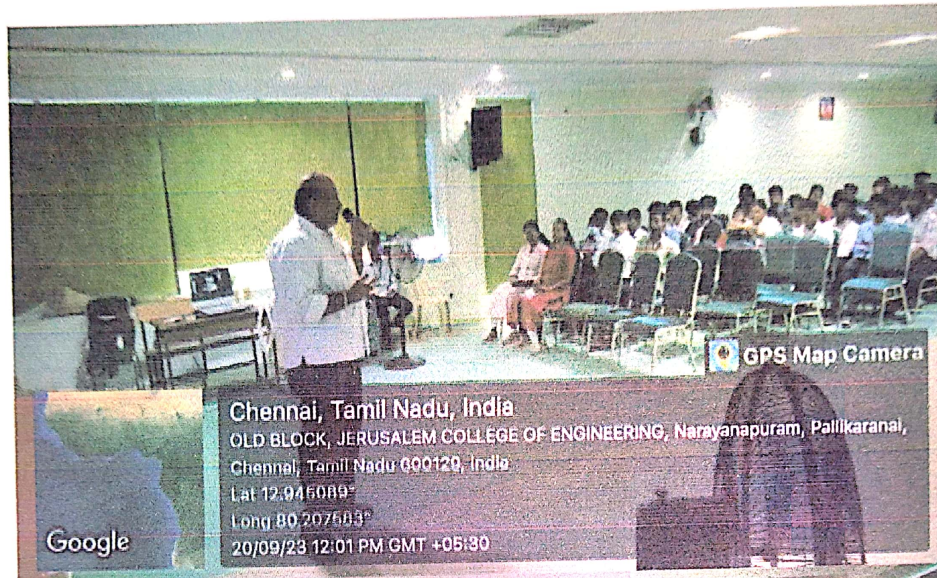
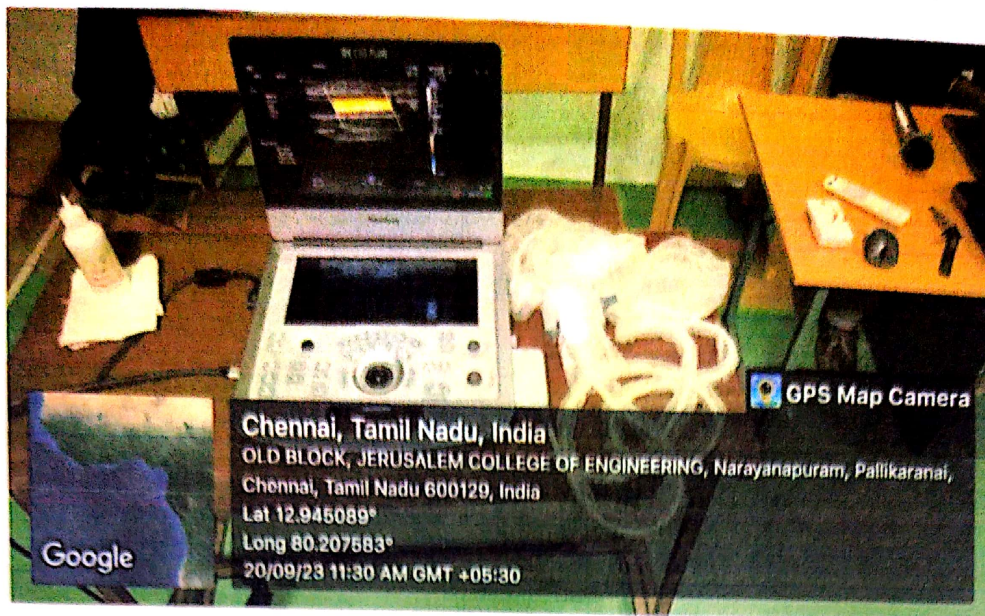


Department of Biomedical Engineering has organized a Seminar on 20.09.23(Wednesday) from 10 am to 11 am on the topic *“Ultrasound Scan and Transducers”*. The resource person was *Mr.Srikanth Dhanaraj, Director-Ultraserve systems, Chennai*. The photos of the seminar are attached.

### PHOTOGRAPHS:







The Speaker gave the introduction to ultrasound probes, transducers, the working and applications in hospitals. Ultrasonic transducers are manufactured for a variety of applications and can be custom fabricated when necessary. Careful attention must be paid to selecting the proper transducer for the application. It is important to choose transducers that have the desired frequency, bandwidth, and focusing to optimize inspection capability. Most often the transducer is chosen either to enhance sensitivity or resolution of the system.

Ultrasonic transducers are based on Ultrasonic Testing. Ultrasonic Testing (UT) uses high frequency sound energy. Ultrasonic testing (UT) has been practiced for many decades now. Initial rapid developments in instrumentation are spurred by the technological advances. Ultrasonic data can be collected and displayed in a number of different formats. The three most common formats are known in the NDT world as A-scan, B-scan and C-scan presentations. Each presentation mode provides a different way of looking at and evaluating the region of material being inspected. Ultrasound transducers are handheld and ergonomic, easily adapting to your practice. Suitable for all imaging options (2D, 3D, 4D; flat, static, or moving) including echocardiography, doppler, and sonography.

Designed to guide and address the needs and challenges of healthcare professionals in different clinical scenarios, unique ultrasound probes can be used both inside and outside of a hospital setting. The transducers are also useful in emergency and mobile settings, as they are portable and lightweight. With the touch of a button, clinicians can swiftly acquire high-quality images needed for correct diagnosis.

He also gave a detailed lecture on

- Transducer types
- Hygiene for TV imaging
- Cleaning the transducer post scan
- Comparison of probe types
- Image optimisation
- Applications of USG
- Importance of Biomedical Engineers in hospitals

The session was interactive and students were intuitive in learning the practical hands on equipment demo shown with USG equipment.



**Coordinator**

  
**HoD-BME**





**JERUSALEM COLLEGE OF ENGINEERING**

**(An AUTONOMOUS INSTITUTION)**

Narayanapuram, Pallikaranai, Chennai - 600100



## Department of Biomedical Engineering

Organizes  
A Seminar on

# "Ultrasound Scan and Transducers"



**Mr. Srikanth Dhanaraj**

**Director-Ultraserve systems  
Chennai.**



**20 Sep 2023 10:00am to 11:00am Seminar Hall III & IV, BME**

**Ms B Nivetha**  
Asst. Professor  
Coordinator

**Dr J Sofia Bobby**  
HOD, BME  
Convener

**Dr Ramesh S**  
Principal

**Dr M Mala**  
Chairperson