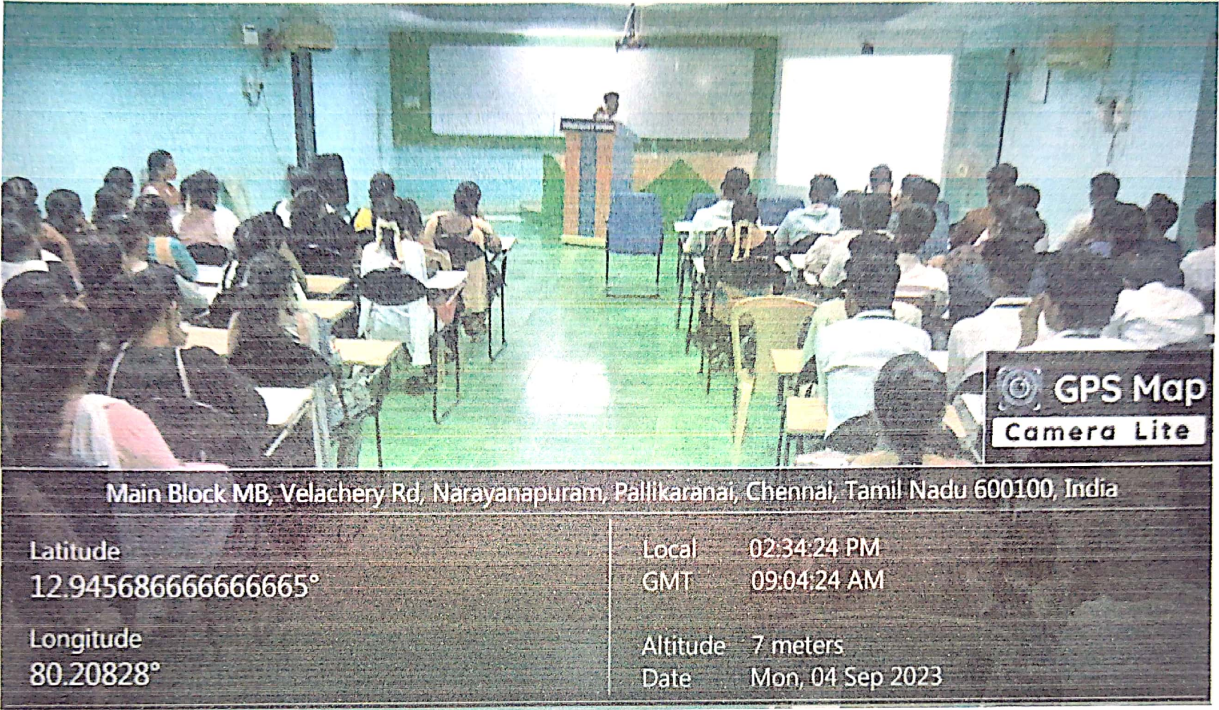
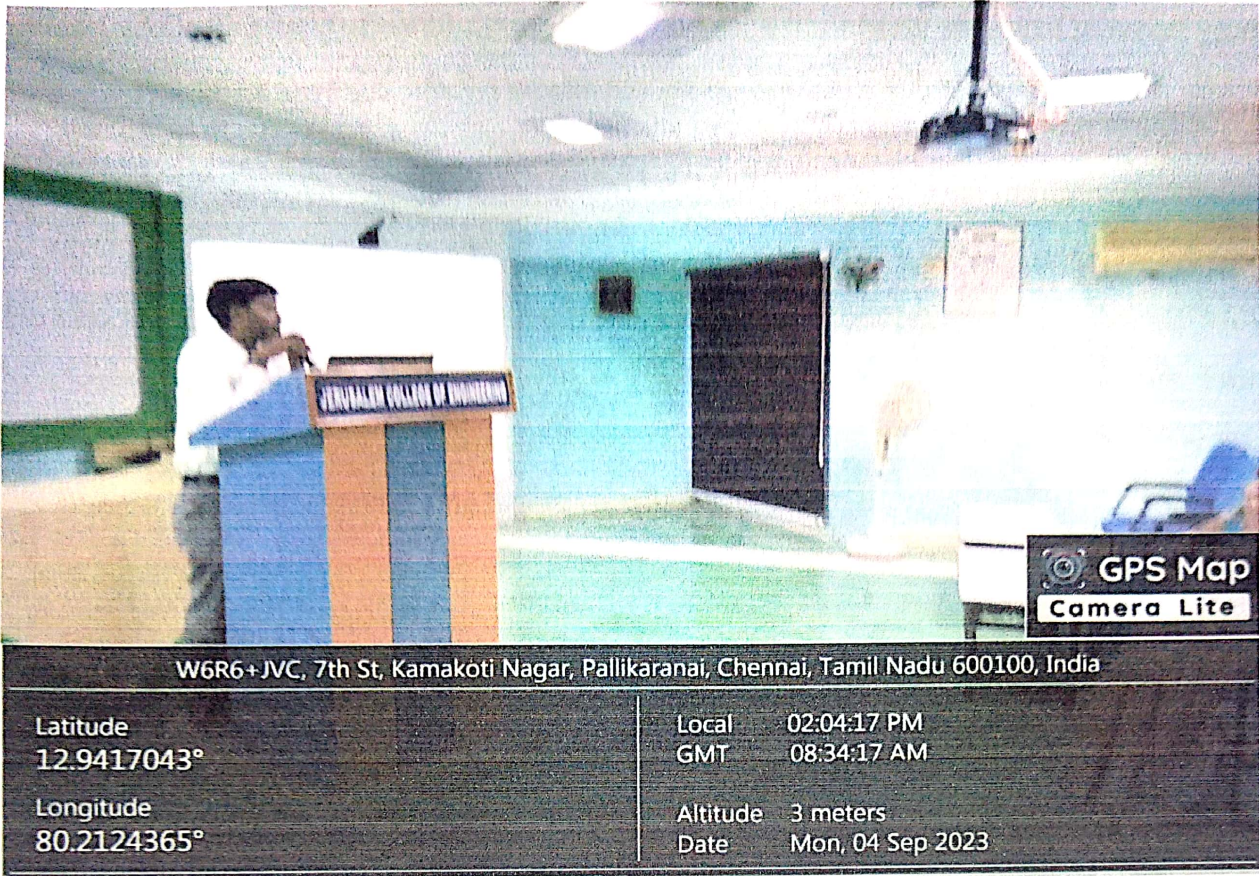


Department of Biomedical Engineering has organized a Seminar on 04.09.23 on the topic "Roles of Biomedical Engineering in Healthcare Industry". The resource person was Mr. MAHENDIRABIRAPU CHANDIRASEKARAN, Biomedical Consultant, Hospital Projects and Procurement, Pondicherry. The photos of the seminar are attached.

**PHOTOGRAPHS:**





The Seminar started with basics of biomedical engineering, job roles and the the future scope of biomedical engineer in different specialized fields like sales executive, service executive, field service engineer, application specialist. The opportunities available for biomedical engineers in different areas like in hospital, manufacturing companies and which are all the companies suited for biomedical engineer has been explained. Research in biomedical engineering involves both discovery and invention. Clinical advances provide input for further improvements in methodology and for generating hypotheses to be tested in the laboratory and conversely, the results of fundamental advances in biology, medicine, materials and physicochemical and engineering processes can lead to the development of therapy and technology that may reach the clinic.

Indeed, major inventions of biomedical engineering such as artificial joints, magnetic resonance imaging, heart pacemakers, heart–lung machines and angioplasties are built on findings stemming from basic research and have enabled further discoveries. Bioengineers work together with other healthcare professionals, such as doctors, nurses, surgeons and technicians, to tackle health issues that they all come across. This has led to the creation of vital tools and devices such as MRI machines, dialysis machines, diagnostic equipment and


ultrasound. Combining traditional engineering with health has hugely advanced in recent years; with the rise of technology, medicine and resources, Biomedical Engineers are now able to operate in an environment that inspires creativity more than ever, to allow them to create solutions for a vast range of health issues.

He also highlighted that Biomedical engineers study the movement and signals of the body, to understand why it functions the way that it does and how biological systems work. From this, new technology such as wearable sensors and pacemakers have been produced to give patients comfort whilst monitoring health conditions remotely and in real-time.

Jobs for Biomedical Engineering can be explained fields and sub fields like tissue, cellular and genetic engineering, computational biology, biomaterials, bio-nanotechnology, medical imaging, and biomedical electronics, among many others. This makes an immense job market for biomedical engineers. While imaging and electronics have been around for decades, tissue engineering is a relatively new area. It has immense growth potential and contribution to the scope of biomedical engineering. Additionally, it is responsible for maintaining, restoring and improving damaged tissue while computational biology helps in human genome sequencing and modelling biological systems.

Through the design of healthcare tools, devices, and software, people with niche healthcare problems are now accessing solutions that have never been possible before to make billions of lives better, safer and more productive. The development of prosthetics limbs, artificial hearts, livers, bionic contacts lenses and the camera pill - that contains a colour camera, battery, light and transmitter to be able to capture internal processes - are just a few of the many incredible healthcare inventions that Biomedical Engineers have developed in recent years. The session was interactive and the students found it useful with the exposure provided by such interaction is important for the growth of the student at this critical learning stage. Learning from industry experts opens doors to new thought processes and the students gain from the different perspectives and approaches to problem solving.

  
COORDINATOR

  
HoD-BME



**JERUSALEM COLLEGE OF ENGINEERING**

**(An AUTONOMOUS INSTITUTION)**

Narayanapuram, Pallikaranai, Chennai - 600100



## Department of Biomedical Engineering

Organizes

A Seminar on

**“Roles of Biomedical Engineering in Healthcare Industry”**

Resource Person



**Mr. MAHENDIRABIRAPU CHANDIRASEKARAN,**  
Biomedical Consultant,  
Hospital Projects & Procurement,  
Pondicherry.



II, III & IV BME Students



1.00 pm - 2.00pm



04 Sep 2023



Seminar Hall

**Ms B Nivetha**  
Asst.Professor  
Coordinator

**Dr J Sofia Bobby**  
HOD,BME

**Dr Ramesh S**  
Principal

**Dr M Mala**  
Chairperson