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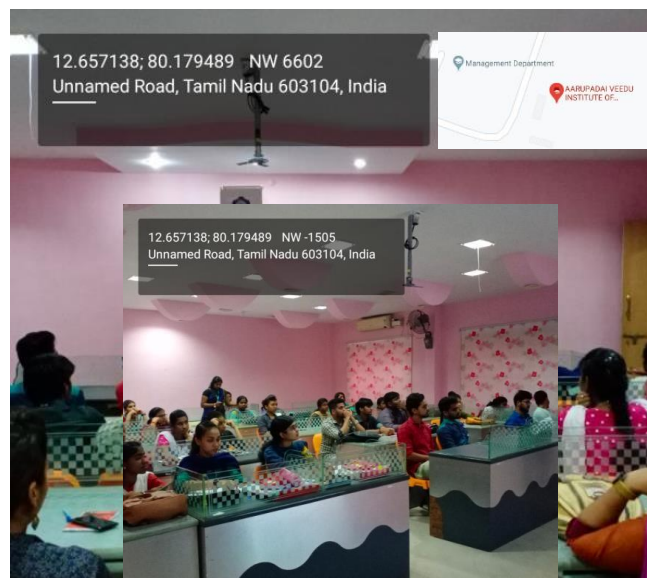
DEPARTMENT OF BIOMEDICAL ENGINEERING

A REPORT ON GUEST LECTURE

MODERN CUTTING-EDGE RESEARCH ON ARTIFICIAL EMULATION OF HUMAN BONE FOR BIO MEDICAL APPLICATION

REPORT DATE: 27-02-2020

The Department of BME conducted a Guest Lecture titled “**Modern Cutting-Edge Research On Artificial Emulation Of Human Bone For Bio Medical Application**” on 27.02.2020 at 10.00am in Digital Room No.4. Dr.N.Sivakumar, UGC-DST, Post-Doctoral Fellow, Crystal Growth Centre, Anna University, Chennai was the Chief Guest of the event.



Dr.M.Ravindiran, Dr.N.Sivakumar & Mr.V.Prabhakaran – On the Dais

Mr.V.Prabhakaran, Assistant Professor (G-II) organized the event successfully. The chief guest of the event, Dr.N.Sivakumar, was received by Dr.Ravindiran, Prof & Head / BME, AVIT in his office. The guest was accompanied to the Digital Class Room No.4. The event started with a Welcome Address by Ms.Santhoshini Arulvallal, Assistant Professor/BME. The chief guest was facilitated by Dr.Prof.Ravindiran, HOD /BME.



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Participants of the Guest lecture

After the brief welcome session Dr.N.Sivakumar delivered his Lecture on the “Modern Cutting-Edge Research on Artificial Emulation of Human Bone for Bio Medical Application”. Dr.N.Sivakumar initially discussed the basic properties of human bone that has different properties which can be identified and if emulated artificially that can be used for medical applications like bone graft substitute. Conductivity measurements on natural bone samples are scarce. He also elaborated on the cancellous bone blocks obtained from the limbs of patient which were amputated for reasons like crush injury. The studies of Human bone structure, chemical nature and surface morphology are discussed through powder XRD, FTIR and SEM studies. The analysis of Human Bone blocks using Hall effect measurement in Van Der paw methods at room temperature and also the hall parameter of the bone sample such as Hall mobility, carrier concentration, conductivity, hall coefficient were also discussed.



Dr.N.Sivakumar - Interacting with Students



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Dr.N.Sivakumar also touched the various types research and practices followed in biomedical research field and also elaborated his research work on bone grafting and emulation technique.

After his lecture students are aware of:

- Artificial Emulation of Human Bone.
- Cancellous bone blocks obtained from limbs of patient.
- XRD, FTIR and SEM studies on Human Bone structures.
- Analysis of Human Bone blocks using Hall effect measurement in Van Der paw methods.

The general feedback obtained from the students was that guest lecture was very informative on the various aspects of the biomedical research. The guest lecture was concluded with a vote of thanks.

Prepared by
Mr.V.Prabhakaran
Assistant Professor (G-II)

Approved by
HOD/BME