



KINGS
COLLEGE OF ENGINEERING
(NAAC Accredited Institution)
(Approved by AICTE, New Delhi, Affiliated to
Anna University, Chennai)



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ACADEMIC YEAR 2017-2018 EVEN SEMESTER**

REPORT ON LOCAL VISIT

HEALTH IS WEALTH

A one day local visit to KG hospital, Thanjavur was organized for third year ECE students on 13th February, 2018. The main objective of this visit is to provide real time exposure for students in the field of medical electronics. A batch of 97 students along with faculty members visited the hospital. Students visited different paraphernalia of the hospital like ECG, Dialyzer, ICU ventilator, BMI machine, CT scan, mobile X-ray machine etc.



A detailed explanation regarding each department was given during the visit. This was followed by an enumerated presentation about the role of hospital's pharmacy, drug distribution systems, inventory management and medication errors. Students gained practical knowledge on the working principle of instruments like ECG, Dialyzer and ICU with ventilator, BMI machine, CT scan, mobile X-ray machine.

At the Intensive Care Unit, ECG apparatus working procedure was clearly explained, and for better understanding a student's heart beat was measured using digital heart beat monitor. A demonstration on BMI machine was given to the students; the BMI machine not only measures the Body Mass Index but also measures the body temperature, pulse rate, oxygen content in the blood which will work on matrix laboratory. Doctors at the hospital encouraged the students to do their projects in biomedical domain.



Portable ECG machine is used to predict the exact time when a patient had heart attack and helps the doctor to diagnose accordingly. Dr. Murugan explained the operation of an auto analyzer, which is used to measure the blood sample (90 at a time). Later the operation of a dialyzer was briefed. Dialysis is a treatment carried, when kidney failure occurs and helps the kidney to purify the blood. Two types of dialysis hemodialysis and heterodialysis are briefed. In hetrodialysis, no machine is needed, first a hole is created on the stomach and the blood is removed and pure blood is injected. Normally, haemodialysis is performed in hospitals and consumes usually 4 hours.

Finally operation of CT scan machine is explained clearly. In, CT scan, the picture of the brain is captured and sent to the computer directly for the further analysis. Dr. Krithika, cardiologist clarified our doubts in each section.

