

## **ABSTRACT**

Transmission and over signal process by fiber optic compared with electronic or radio wave has been an interesting object since 1960's, where the development of laser technology served for the first time by a static resource from the coherent lights for some application.

No contact measurement of velocity can be done for example by using the laser light wave. Integrated-optic Doppler Velocimeter is measurement equipment by using the laser light that working according to the Doppler Effect and wave soaring. This equipment requires a high coherent requisite for the interferential of two shaft of laser.

This final project will show the simulation of human blood circulation velocity by using Integrated-optic Doppler Velocimeter. The measurement and visualization will be using the MAT-LAB tool. This simulation is expected to make the learning process become easier in understanding the principal of the system.