# ABSTRACT

Human disability, in this case, a doctor, when analyzing patient's diseases, emerge new ideas in medical technology that can help a doctor in analyzing patient's diseases more accurately. One method that is used by a doctor in analyzing patient's diseases is by examining patient's heart sounds. Heart sounds that are heard by a stethoscope result a different heart taps which are named lub-dub. Checking patient's diseases can be done by analyzing characteristic of lub, called first heart sound (S1) and dub, called second heart sound (S2).

A doctor's subjectivity in analyzing characteristic of heart sound S1 and S2 can be resulted in wrong disease diagnosis for patient. In this final task, it will be classified between normal heart sound and abnormal heart sounds using a method Hidden Markov Model (HMM) that is hoped for increasing accuracy of doctor's diagnoses. Classification process in this final task is hoped for having optimal accuracy in range 0f 70%-80%.

*Key Words : lub-dub, heart sounds, hiddden markov model.*