





## SCHOOL OF ENGINEERING

# DESIGN OF A FM TRANSMITTER AND A FM DEMODULATOR

#### **FINAL REPORT**

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### The Design Of A FM Transmitter And A FM Demodulator

## **ABSTRACT**

Frequency modulation (FM) and demodulation techniques are well established and understood when implemented with analog circuits. The purpose of this project is to develop a FM transmitter and a FM demodulator using PLL. The operation of both the transmitter and the demodulator should be understood in both mathematically and theoretically .This includes the derivation of equation and related to it. In this report the transmitter and the receiver part is discussed .Other types of demodulator are also discuss and are compared to demodulator that has been built, that is the PLL demodulator. More emphasis has been given to the PLL demodulator. To make it easier for the readers this report has been edited in a few chapters. Those chapters are introduction, transmitter and receiver, types of demodulators, simulation results and discussion, hardware, and project management.