**YAKUBU HEEKMAT OHUNENE**

**COMPUTER ENGINEERING**

**17/ENG02/080**

**EEE 471 ASSIGNMENT**

1. **Signal processing and interfacing techniques in measuring instruments**

Some categories of signal processing: analog, digital, non-linear.

Most voltage signals produced by sensors require signal processing before they can be converted to digital form or used to drive actuators.

Analog signal processing often has to boost the sensors output.

1. **Expert system instrumentation**

This has been applied for the control of bioprocesses to provide a means of imitating the decisions made by a skilled operator. Sophisticated expert systems have been realized by significant developments in computer technology. An expert system consists of an editor for editing various knowledge bases and an inference engine for utilizing the knowledge base. The construction of an expert system using inference was reported by Kishimoto et al. They studied the optimization of penicillin feeding in glutamic acid production.