**COVER PAGE**

**Abstract**

The course of Instrumentation II gives emphasis on advance design system and case studies. We are required to prepare case study of local industrial situations with particular attention paid to the basic measurement requirements, accuracy, and specific hardware employed environmental conditions under which the instruments must operate, signal processing and transmission, output devices.

This report presents an overview of the applications of the electronics in Sagarmatha Oxygen Nepal Pvt. Ltd. Existing instrumentation system is described with block diagram. Features, advantages and limitations of the system of the existing instrumentation system is mentioned in detail. After existing system is closely inspected the system is recommended with all its features and block diagram which can possibly remove the shortcomings of the existing system and will be more efficient.

**Introduction**

Oxygen is naturally available in the atmosphere. Dry air consists of 20.95% oxygen. Oxygen is always needed in the hospital and to hold the oxygen in huge quantity and most economical way is in a liquid form. So pressurized gas cylinder is used to store and distribute commercially produced gases.

Sagarmatha Oxygen Nepal is the first liquid plant of Nepal. They have two liquid reserve tanks with liquid oxygen so to supply oxygen very efficiently and on time. They supply 99.99% pure oxygen with the best quality cylinders at the best affordable rates. Liquid oxygen is widely used but it is also used for Welding and Metal Fabrication and other industries and sectors like Hydropower, Mountaineering, Workshops, and home based consumption.

Sagarmatha Oxygen Nepal Pvt. Ltd. established in \_\_\_\_\_\_\_\_\_\_\_is located in Patan industrial estate in lalitpur. It employs \_\_\_\_\_\_\_\_people for production and distribution of produced liquid gases. It supply its product to prestigious medical institutions like BNB hospital ,National Trauma Center and other organizations and also sells for use in industries or home use. It is one of the leading producer which provides gases at cheap price with high purity.