

**NAME : OMIDIJI E. S**

**CLASS : JS 2**

**SUBJECT : BASIC TECHNOLOGY**

Week : 5

**TOPIC : PNEUMATIC**

## **PNEUMATIC**

A pneumatic system is a system that uses compressed air to transmit and control energy. Pneumatics are used in controlling train door, automatic production lines, mechanical clamps etc

## **DIFFERENCES BETWEEN HYDRAULICS AND PNEUMATIC**

- \* Hydraulics is used in controlling power with the use of pressurized fluids while pneumatics studies how pressurized gases influence mechanical motion.
- \* Hydraulics uses an incompressible fluid medium like oil while pneumatics uses a compressible gas like air.
- \* hydraulics application demands greater pressure during operations while pneumatics application only require less.
- \* Most of hydraulics application generally use bigger components than pneumatics application.
- \* Hydraulic system are generally more difficult to operate compared to pneumatic applications.

## **ADVANTAGES OF PNEUMATICS SYSTEMS**

- \* It is highly effective
- \* It is highly durable and reliable.
- \* It is simple design.
- \* It is highly adaptable to harsh environment.
- \* It is highly economical
- \* It is environmental friendly.

## **DISADVANTAGES OF PNEUMATIC**

- \* it is relatively low accuracy

- \* It is noisy in nature
- \* It has uneven moving speed
- \* It has low loading
- \* It is required preocssing before use

#### **APPLICATION OF PNEUMATIC**

- \* It is used in buses and trains
- \* it is used for drilling teeth
- \* It is used in road drill
- \* It is used in assembling products.