

*MADHAV INSTITUE OF TECHNOLOGY AND SCIENCE, GWALIOR*

**SENSOR TECHNOLOGY**

ASSIGNMENT 4



Submitted by:

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Submitted to:

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**Explain the following: Accuracy, Precision, Resolution, Dead time, dead Zone.**

ANSWER)

1. **ACCURACY:**

The closeness of the measured value to a standard or true value is known as accuracy. It is the degree of exactness of a measurement compared to the expected or desired value. High accuracy is always preferred.

1. **PRECISION**:

The closeness of two or more measurements to each other is known as the precision.

OR, the ability of a sensor to repeat a measurement when put back in the same environment is called precision.

It is the measure of consistency or repeatability of measurements.

1. **RESOLUTION**:

It is the ability to sense small differences in reading is known as resolution.

Or, the smallest measurable input change which changes the output value is known as resolution.

1. **DEAD TIME**:

The time taken/ required to respond to the smallest change, such that sensor gives output, is known as dead time.

1. **DEAD ZONE**:

The largest change in input for which there is no output is known as dead zone.

The factors which produce dead zone are backlash or hysteresis in the instrument.