Fateh
Trainings & Consultancy

MACHINE MONITORING SYSTEMS

BUILDING COMPETENCE, INSPIRING CONFIDENCE

Course Objectives

To develop a clear understanding of machine monitoring principles, vibration measurement, sensor technologies, and protection systems used in rotating and reciprocating machinery.

Target Audience

- Maintenance Engineers
- Reliability Engineers
- Instrumentation & Condition Monitoring Professionals

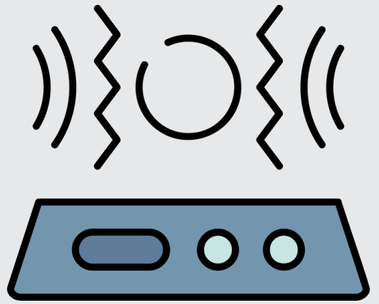
Key Takeaways

- Understand vibration and displacement monitoring
- Select correct sensors and measurement methods
- Improve machinery reliability and protection

Day 1

Vibration Monitoring Basics

- Introduction to machine monitoring systems
- Radial vibration and severity units
- Vibration sensor types: proximity probes, velocity sensors, accelerometers
- Vibration characteristics: frequency & amplitude
- Scale factor and vibration cross-checking
- Key vibration conversion values
- Axial displacement measurement methods



Day 2

Advanced Measurements

- Rod drop monitoring
- Barring (turning gear) monitoring
- Static charge measurement
- Critical speed and speed measurement
- Measurement types
- Active and passive sensor

Day 3

Protection & Special Applications

- Temperature measurement
- Compound gear monitoring
- Vibration switches and machinery protection




Instructor

Mr. Aftab Ahmed Mazari
InstrumentationExpert

Mr. Aftab Ahmed Mazari has over 43 years of extensive practical experience as an Instrument Engineer. He completed his science graduation from Punjab University and received industrial instrumentation training from Russia.

He began his professional career at Pakistan Steel, where he served for 10 years. He later joined Fauji Fertilizer Company (FFC) and retired after completing 30 years of service with rich and diverse experience. Following his retirement, he worked as an Instrument and Consultant Engineer with SABIC in Saudi Arabia for one year.

Mr. Aftab Ahmed Mazari possesses wide expertise in instrumentation consultancy, Reliability Centered Maintenance (RCM), reliability engineering, and professional training. He has delivered training programs and courses to both local and international clients, including SABIC in Saudi Arabia and multinational companies such as ENI, Lotte, BHP, Engro, and HUBCO.

He has developed several training aids for instrument engineers and technicians, including simulators and training rigs such as vibration simulators, vibration switch testing rigs, speed simulators, compound gear simulators, and SOV training rigs. In addition, he has designed and produced cutaway models of control valves, pressure safety valves (PSV), rotameters, temperature sensors, pressure regulators, volume boosters, and trip relays.

Mr. Aftab Ahmed Mazari has also authored eight industrial instrumentation books for instrument and operations personnel, which are widely referred to in various industrial facilities across Pakistan.

Logistics

Duration

3 Days (Classroom + Practical Concepts)

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Location

Client site or Lahore

Training Instructors

Mr. Aftab Ahmed Mazari

Get in Touch

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