Mechatronics definitions

Synergistic integration of mechanical engineering with electronics and electrical systems with intelligent computer control	Cross-disciplinary field involving mechanics, electronics, and control of computer-integrated EM systems	Integration of electronics, control engineering, and mechanical engineering

Measurement Systems Components

Transducer	Signal Procc.	Recorder

Amp. Linearity

$$V_{out}(t) - V_{out}(0) = \alpha(V_{in}(t) - V_{in}(0))$$

1. Difficult to interpret non-linear
2. System satisfies linearity over range
3. Linear response holds for limited range
4. Ideal system = linearity for any amp and rate