

Imagine RIT Presentation Topics

Discussion

- SPX Company Background
 - Location : Rochester, NY
 - Specializes in Mixing Technology
 - Designs and Manufactures impeller blades
 - Show pictures of various SPX impeller blade designs
- Project Objective and Implementation
 - Design test rig to wirelessly acquire strain data on impeller blades during mixing
 - Strain gauge selection
 - Telemetry system selection
 - Mount and protect telemetry system
 - Data processing
- Strain Gauge Basics
 - Strain gauge as resistor
 - Resistivity changes with length
 - Wheatstone Bridge
 - Benefits of quarter-bridge configuration
- Telemetry System Info
 - V-link LXRS from LORD MicroStrain
 - System specs
 - Software capabilities

Demonstration

- Show setup
- Run motor
- Show software interface and use
- Show strain data stream at various RPMs