



## LVTRC<sup>2015</sup>

### - Rotordynamics/Vibration Data Acquisition Software

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#### Applications/Benefit

LVTRC is a standalone and comprehensive software package for rotor-dynamics data acquisition, vibration measurements, analysis and diagnosis. The code is free-to-use for TRC members.

#### Accomplished features (from Jan. 2015 to May 2015)

- *New Module: LVAlignment*
- *Octave Band Machinery Noise Monitor*
- *Full Spectrum Monitor with Peak Whirl Direction Indicator*
- *Nonsynchronous Whirl Orbit Plot*
- *Ball Bearing Fault Monitoring & Detection*
- *Trial weight estimator*
- *Modal shaker controller/monitor*

#### Proposed New Features (starting June 2015)

- *Gear, belt, motor and pump fault detection.*
- *intelligent diagnostic system with artificial neural network and fuzzy expert system*
- *Instantaneous orbit and whirl direction on plot of transient signals*
- *A Laptop-friendly version of the software*
- *A hardware-software package*
- *Meet the demands from the TRC members*

#### Deliverables

- Updated code and manual available for download at the TRC server
- Experimental Verification of code functionality on test rigs