



Wireless Integrated Microelectronic Vacuum Sensor System (WIMVSS)

Invocon, Inc.

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INNOVATION

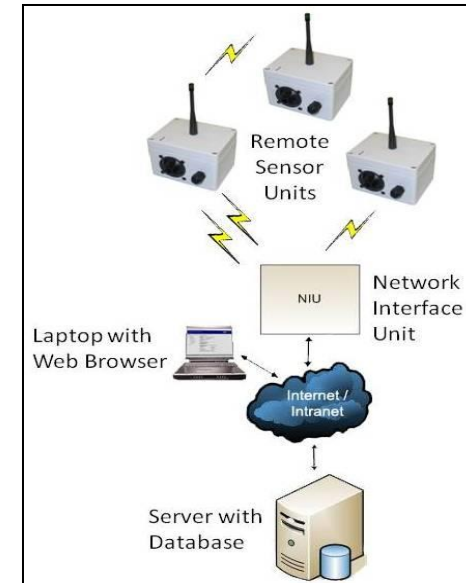
- An innovative Wireless Integrated Microelectronic Vacuum Sensor System for monitoring vacuum-jacketed pipelines for ground testing and launch facilities.
- Uses smart circuitry and low-power, long range RF transceivers to enable the development of a low-cost, miniature device with sophisticated capabilities.
- The complete, self-contained, battery operated system interfaces with pre-existing vacuum gauges to provide periodic, continuous monitoring of vacuum conditions throughout the entire facility. This reduces labor required for data acquisition.
- Web Interface enables access to data and control of the system throughout the facility. This reduces labor required to meet reporting requirements.

ACCOMPLISHMENTS

- Invocon delivered a prototype system to NASA Stennis Space Center.
- NASA Stennis Space Center has performed initial field testing of WIMVSS.
- Additional testing is planned for new infrastructure at NASA SSC.

COMMERCIALIZATION

- Invocon participated in Phase III contract to characterize baseline system performance and plan for enhancements.
- NASA and Invocon are discussing additional applications for WIMVSS both at Stennis Space Center and other NASA facilities.



Remote Web-Based Vacuum Monitoring

GOVERNMENT/ SCIENCE APPLICATIONS

- Monitoring of vacuum levels throughout ground test facilities, launch sites, and on flight vehicles, both during certification testing and while in space.
- Monitoring lunar/Martian fuel depots. The loss of vacuum in the jackets, if undetected, could cause significant losses of fuels and potentially dangerous conditions.
- Sensing for industrial process control such as chemical processing or power generation where vacuum levels must be monitored.
- Replacement of handheld meters.