

## Technical Services



# Introduction

Pan Gulf Industrial Systems (PGI Systems) is a wholly owned subsidiary of Pan Gulf Holdings, a leader in Middle East business for over 30 years and listed in the top 50 Saudi Companies.

PGI Systems specialises in the design, supply, installation and commissioning of 'state-of-the-art' technological solutions and the provision of expert consultancy services.

## Affiliations

PGI Systems are affiliated with some of the foremost leaders in global engineering excellence. Our technology partners pride themselves in driving innovative technological advances in the fields of consultancy and services in their respective disciplines.

Through partnerships spanning a broad spectrum of technologies, drawing together our partners' individual attributes to complement our own expertise, PGI Systems is able to provide a 'Total Solution' for both onshore or offshore projects.

**IN-DEPTH KNOWLEDGE**  
**EXCEPTIONAL**  
**SOLUTIONS**



# Consultancy & Technical Services

PGI Systems Consultancy & Technical Services division, a research-based consulting, services, and training organisation, provides a perspective vision on the optimum solutions to meet and exceed customers' needs.

Our core business sectors include condition monitoring, vibration analysis, training, industrial management & maintenance services, as well as industrial software development.

With on-going long term contracts throughout the Middle East, our repeat customers are evidence of the success of our specialised customer-focused solutions.

## Technical Services

PGI Systems provides advanced technical services in:

- Condition monitoring
- Rotordynamic analysis
- Balancing and alignment
- Plant services
- Training & certification



# Condition Monitoring

In partnership with RITEC, Cairo, Egypt, using state-of-the-art tools, our certified engineers and technicians actively support our customers' maintenance teams by providing accurate condition assessment of plant equipment and meaningful, valuable solutions.

Established in 1994, RITEC (Research, Industrial, Training & Educational services Company) is the leading provider of condition monitoring and predictive maintenance services in the Middle East. RITEC provides complete solutions in condition monitoring including products, services and training.

Our Condition Based Monitoring (CBM) teams handle every aspect of the implementation of CBM Programs, including:

- Baseline Monitoring
- Scheduling, Control and Planning
- History record trending
- Data analysis (technical and management)
- Weekly and monthly report generation
- Overall CBM system planning



# Azima DLI

Azima DLI is the leader and premier provider of predictive maintenance services and products that align with customers' high standards for reliability, availability and uptime.

## Trio CX-7

In partnership with RITEC, we are privileged to offer our customers AZIMA DLI's Trio CX-7, the latest next generation vibration analyzer.

- Simultaneous tri-axial data collection
- Industrial Windows 7 Ultimate Tablet PC
- Available with built-in Expert Alert Software
- Integrates with Expert Alert, Standard Expert Alert and Watchman Reliability Portal and does not require host software
- Laser tachometer does not require reflective tape



UTILISING  
STATE-OF-THE-ART  
TECHNOLOGY  
**DELIVERING RESULTS**



# Expert Alert™

Expert Alert™ is a full-featured, automated diagnostic and vibration analysis package, and is the most advanced machine condition assessment / vibration analysis software on the market, allowing you to expand your capabilities by streamlining your analysis and routine processes, and includes:

- Setup wizards to improve set up time and accuracy
- Automated bearing fault identification without requiring bearing make and model number
- Multi-level fault severity and prioritised repair recommendations to improve repair planning
- Advanced reporting tools for professional reports
- Better machine performance determination through ALERT's calculated process points feature
- Online monitoring, walk-around vibration collection and operating log collection in one system

# SpriteMAX™

SpriteMAX™ is an independent, modular, powerful, networked online system that remotely monitors, maintains and automatically reports the health of your plant machinery. SpriteMAX™ technology is based on simplicity, robustness, connectivity and diagnostic intelligence and has many advantages:

- Barrier-free remote monitoring
- Low system and installation costs
- Adaptable user interface
- Automated diagnostics
- Extensive fault detection



# Sprite Roamer™ ICU

This revolutionary new portable, online monitoring system allows plants to quickly deploy WATCHMAN Intensive Care™ services to machines that require special attention.

Roamer ICU collects vibration and process data, performs local fault diagnostics and transmits both data and diagnoses to the Watchman Reliability Portal™.

This technology allows both you and Azima DLI's Diagnostic Centre to closely monitor your machines' condition from any internet-enabled computer, and is typically used by facilities that do not have an online monitoring system, but have a need for frequent data collection on some of their equipment.

## Watchman Reliability Portal™

Azima DLI's secure web-based technology, the Watchman Service Program includes unlimited subscription seats to the Watchman Reliability Portal™, providing access and automated alerts for all of your monitored assets including history trends, statistics and reports.

## Reliability as a Service (RaaS)

Includes locally installed ExpertALERT analysis software, cloud-based ExpertALERT web application, and cloud-provided WATCHMAN Reliability Portal™, hosted data storage and replication services, mentored PdM training and available professional analytical expertise.

Azima DLI reduces the need for IT support, database management and capital costs associated with dedicated servers and static software fees. RaaS provides broad access to collaborate on critical assets across the enterprise or from Azima DLI's certified analytical experts.



# Rotordynamics

Through our partnership with RITEC, PGI Systems provides rotordynamic analysis to study machinery dynamic characteristics and remedy chronic machinery problems.

Our teams are experienced in troubleshooting and in conducting engineering studies to remedy vibration problems, typically assisting in the alleviation of:

- Resonance problems
- Sensitivity to unbalance
- Stability problems

## Alignment and Balancing

Alongside RITEC, PGI Systems offers balancing of machines and machine trains to ISO standards, using the single-shot method to balance repeat machines, with the capability of balancing both rigid and flexible rotors.

Alignment is conducted using the latest precision laser alignment methods for machinery including:

- Couplings
- Cardin shafts
- Bores
- Rolls & pulleys

Flatness, straightness and levelness can also be assessed.





# Plant Services

In partnership with RITEC, PGI Systems provides comprehensive plant services to the industrial sector, and have a successful track record of:

- Troubleshooting machinery problems
- Performance optimisation of existing plant
- Machinery and structural testing, including acceptance testing of new machines
- Advising on maintenance management, including policies, systems, organisation and technologies
- Executing detailed engineering studies, from verifying new designs to modifying existing plant

## Site Installation

Our teams of highly skilled technicians, and qualified, experienced site engineers, provide a comprehensive site installation service specialising in the installation and commissioning of vibration and condition monitoring systems for the oil, gas, petrochemical, power and process industries.



**CONSISTENT STANDARDS**  
**EXCEPTIONAL**  
**PERFORMANCE**



# Training & Certificates

The Vibration Institute is an international not-for-profit corporation located in the United States & dedicated to the exchange of practical vibration technology, and is represented in the Middle East by RITEC.

Established in 1994, RITEC (Research, Industrial, Training & Educational services Company) is the leading provider of condition monitoring and predictive maintenance services in the Middle East. RITEC provides complete solutions in condition monitoring including products, services and training.

Through partnership with RITEC, PGI Systems offers comprehensive training programs from Vibration Institute USA in the following fields:

- Introduction to Machinery Vibrations (IMV)
- Basic Machinery Vibrations (BMV)
- Machinery Vibration Analysis (MVA)
- Advanced Vibration Analysis (AVA)
- Rotordynamics & Balancing of Rotating Machines (BRM)

Courses are delivered by RITEC, and are held at regular intervals at PGI Systems Head Office in Al-Khobar, Saudi Arabia. Courses are conducted according to ISO and ASNT guidelines and taught by a Vibration Institute Category III certified instructor.

PGIS also offers in-house training, conducted at our customers' premises, where a minimum of six candidates are enrolled on the course.



# Results through Commitment

PGI Systems strives to ensure all projects are installed and commissioned on time, to cost and to quality. We are committed to achieving the highest levels of quality in all our products and services. Formal documented procedures and stringent controls are implemented throughout the Group to ensure that the customers' requirements are understood and met or exceeded.

## Contact Us

For further information about our technical services or to arrange a meeting to discuss your requirements, please

Contact:

[consultancy@pgisystems.com](mailto:consultancy@pgisystems.com)

For the latest Vibration Institute course schedule or to discuss how PGI Systems can best meet your organisation's training needs, please Contact:

[training@pgisystems.com](mailto:training@pgisystems.com)

ENSURING  
MAXIMUM POTENTIAL  
**SEEKING BETTER  
SOLUTIONS**



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In Partnership with:

