



TECHNOLOGY INTEGRATION AND DEVELOPMENT



A black and white photograph of an industrial facility, likely a refinery or chemical plant, with various pipes, tanks, and structures. The title 'TECHNOLOGY INTEGRATION AND DEVELOPMENT' is overlaid in large, bold, red and white letters.

TECHNOLOGY INTEGRATION AND DEVELOPMENT

PetroDIAC aims to be The Value Partner in Engineering and Operational best practices of the Energy and Oil Industry is growing to include delivering technology based solutions that delivers complete Decision Support System according to ISA standards and guidelines.

Quality Management Systems

Our QMS – mobile enabled solution enables users to meet their program expectations and conform with certification systems and meet their customer standards.

- Quality framework and Best Practices -
 - Quality escapes reporting -
 - Quality Concern Reporting -
 - Continuous improvements -
- Auditing, Corrective and Preventive Actions Management (CAPA) -
 - Action Tracking systems -
- Training and Certification Compliance -
- Document Management System -
- Data Analytics and Visualization -



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Health, Safety, Environmental and Sustainability Management

Our HSE&S – mobile enabled solution provides a robust compliance programs and management system for safety, health, environmental and sustainability excellence.

- Health and safety risk management
- Environmental risk management
- Mine safety assessment
- Environmental impact assessment
- Occupational health and safety training
- Mine closure and reclamation
- Equipment quality assessment

Security Management System

Thanks to our experience and knowledge, we develop and install security systems, from the initial planning stage to implementation, guaranteeing continuing support and maintenance.

- Audit and Compliance Assurance -
- Audit Planning and Inspection -
- Permit Management -
- Security Concern / Incident Reporting -
- Action Tracking systems -
- Training and Certification Compliance -
- Document Management System -
- Data Analytics and Visualization -



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Work Permit Management System

Integrated suite of mobile enabled solutions for all types of site works that manages all aspects around planned or unplanned site activities.

- Permit to Work Management
- Job Hazard Assessment
- Lock-out Tag-Out (LOTO)
- Pre-startup Safety Review (PSSR)
- Congestions Management
- Barrier Management
- Asset Mapping

Operations Task Management Solution

Our OTMS is a fully integrated system that includes all the modules required to implement successfully an Operations-centric MES (Manufacturing Execution System).

- Manage continuous Stream of work instructions
- Record, track and manage industrials events
- Communicate, distribute and track instructions
- Achieve consistent, safe and fully-informed shift handovers

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Drone Inspection and Leak Detection Services

Partnering with Karin Brusaard Studios, our Drones services proved extremely successful and cost effective in application areas like:

Flowlines and Pipelines Surveys

- In Tank and In plant Surveys via dedicated sensors
- Physical security survey
- Prevent humans entering confined spaces
- Proven to have reduced inspection time by 95% and inspection costs by 92%
- Laser scanning for inaccessible areas to build 3D asset model
- Hydrocarbon Leak detection on top of pipe racks, tanks and remote locations
- Thermal imaging and insulation inspection

E-Learning and Animated Training Content

PetroDIAC graphic designers and animation specialists have the capability to create visual courses that help visualize standard operating and maintenance procedures, and outline the safety measures that should be followed.

- 2D Animations -
- 3D Animations -
- Virtual Reality Model -
- eLearning contents -

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Virtual Reality – Operator Training Simulators

PetroDIAC presents an Innovative technology that incorporates ultra-realistic 3D immersive virtual reality in combination with a high fidelity dynamic simulator.

- Effective training in a safe and controlled environment
- Improve learning, retention, immersion and performance
- Comprehensive performance assessment
- Boost productivity, safety and product quality
- Increase operator skills and competencies

Cloud based Operator Training Simulators

PetroDIAC simulation and training tools provide in-depth process understanding through accurate simulation models that helps meeting today's operator competency.

- Interactive content and game based training -
- Reinforce, practice and evaluate trainee's knowledge and skills -
- Contribute to safety, reliability and process performance goals -
- Up-to-date with relevant evergreen content -



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