

Intelligent Ship

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The Intelligent Ship concept may be realized via Martechnic Hellas MMCS (Machinery Monitoring and Control System), which is the perfect automation solution for medium to large size vessels.

MMCS improves productivity and efficiency of ship staff, as well as owners and ship management companies, by increasing the quality of monitoring, accuracy of control and handling. Hence it enables optimising business processes through better communication, automated workflow and access to information for all stakeholders.

The increasingly competitive shipping industry today requires ship owners and ship management companies to not only be more productive and cost competitive in fleet management, they are also expected to enforce strict maintenance programmes to prevent vessel downtime. Concurrently, ship management has to adhere to increasingly complex regulations must while respecting safety and security on-ship.

Managing these needs requires a powerful automated system that can store and administer the vast amount of information from ships and h/q offices, aiming to reduce significantly the operating expenses and enhance productivity.

Martechnic Hellas MMCS Subsystems

Fuel Consumption Monitor
Tank Level & Bunker Monitoring

ballast and service tank gauging
tank overflow protection subsystem

Main Engine and Generators Monitoring and Automation

bearing wear monitoring system
crosshead & crank monitoring
cylinder liner monitoring and feed optimizer
torque and power measurement
water in oil

Engineer Control Room

pump room monitoring subsystem
HVAC monitoring and lifecycle management

Potable Water Quality Management
Power Management System

Diesel generator monitoring and control
Diesel engine safety and start/stop
Circuit breaker synchronize & connect
Bus line voltage and frequency control
Generator voltage and frequency control
Generator load in KW and %
Symmetric or asymmetric load sharing
Load control with load shedding
Separation of alarm, control and safety
Single or multiple switchboard control
Heavy consumers management
Automatic start and connect after blackout
Automatic line frequency adjustment
Control of diesel electric propulsion

Stress, Stability, Loading

cargo monitoring and control subsystem
water ingress detection system

Bow Stem Slamming Monitor