

APPLICATIONS & CAPABILITIES

Manufacturing automation systems including Industry 4.0 & robotics

Support infrastructure control & low voltage electrical systems

Obsolescence management for automated electrical equipment

Future upgrade path assessment & implementation for infrastructure and manufacturing equipment

Asset monitoring & control using IIoT technology

REFERENCE PROJECTS

Osborne Naval Shipyard site-wide control system

- Develop and augment a consolidated communications and control network for existing PLCs, site SCADA and consumable services billing system to provide site visibility & efficient operation
- Monitoring and control of critical sub-systems including 9,300 tonne ship-lift, bulk gas storage & delivery, cathodic protection and seawater delivery pumps
- Regular evaluation and upgrade of control and monitoring equipment to prevent obsolescence and risk to infrastructure availability
- Maintenance and 24/7 support services (ongoing contract held for over 9 years)

Bespoke solutions for Defence supporting equipment delivery

- Design, construction and through life support of bespoke automated solutions for defence research and infrastructure support applications
- Solutions designed in close engagement with defence users to ensure key operational requirements are met while using commercial off the shelf components to facilitate ease of maintenance and ongoing support
- Provision of system upgrades for platform obsolescence or capability enhancement

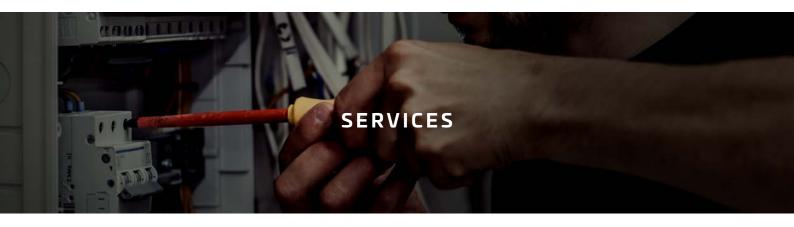
 in one case, this has entailed three major system upgrades over a period of 22 years

Automated plating line safety & control system upgrade

- Design and implement a programmable safety system for an automated plating line used for coating high end materials including Joint Strike Fighter components
- Enhance functionality and efficiency via upgrade of control system
- Maintenance and support services for systems including reverse osmosis and on-site waste water treatment facilities

Jindalee Operational Radar Network electrical control infrastructure upgrade

- Upgrade electrical control infrastructure for the over-the-horizon radar systems
- Assess obsolete electrical control infrastructure upgrade path
- Design new electrical control switchboard with commercial off the shelf components to enable rapid changeout and availability of spares
- · Construct and test a prototype replacement switchboard
- · Construct and test subsequent replacement switchboards





Electrical Design & Construction

- Design and selection for electrical distribution and reticulation (LV)
- Electrical switchboard construction & installation (LV)
- · Power factor correction and load shedding
- · Power metering and billing systems
- · Hazardous area electrical design & installation



Networking, Communications & Telemetry

- Automated alarm annunciation and escalation systems over local or cellular networks
- Telemetry based control and monitoring for remote processes
- Remote connectivity and access to networks and controls for external support services



PLC & SCADA

- · PLC based control systems on wide range of platforms
- Plant-wide SCADA systems for total process automation and data collection
- Ongoing PLC & SCADA engineering support for installations, sites and networks



Project Management & System Delivery

- Management of turnkey projects, either as a principal supplier or as a consultant
- Plant layout for production flow and optimisation
- Site audits and analysis of industrial machinery & equipment



Remote Asset Management Systems & Support

- Use of Industrial Internet of Things technology to provide cost effective and secure monitoring and control of remote assets
- Access to real-time asset data via smart phone or tablets
- 24/7 engineering support services for operators of critical assets

Dematec provides automation and industrial grade digital systems, helping SMEs and MEs to deal with the rigour and agile requirements of Defence.

We also work with large Defence Primes and Government organisations, which gives us the perspective of what the big players need and how the smaller suppliers can contribute with innovation.

SERVICES OVERVIEW

- Scoping and problem solving
- Matching technology to challenges
- Industrial automation & process control
- Industry 4.0 solutions for production & asset management
- Electrical design & construction (inc. hazardous areas)
- Networking, communications & telemetry
- Project management & system delivery
- PLC & SCADA programming
- Robotic systems
- Electrical maintenance & 24/7 support programs

Dematec Automation

+61 (0)8 8374 7600

automation@dematec.com.au

9/5 Stephen Street, Melrose Park, South Australia 5039