Capability Statement

17 Jan 2020

E&C ENGINEERING PTY LTD

INDUSTRIES SERVED

CONSTRUCTION & ENGINEERING

IT & COMMUNICATIONS

MINING

OIL, GAS & ENERGY

PROFESSIONAL SERVICES

Company Details

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ICN Gateway Company ID: 157260

Employees: 3

ABN: 52 631 495 077

Local Manufacturer: No

Foreign Manufacturer: No

Importer: No

Exporter: No

NT CAL Accredited: No

Works in Remote Locations: No

Australian Indigenous Owned: No

Contacts

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E&C Engineering provides professional engineering services for industrial automation and control systems discipline. Our chartered professional engineers are registered in Engineers Australia NER.

Summary

Backed with more than 11 years in Australian mining industry, we provide specialised engineering services in control systems, automation, advance process control, electrical, instrumentation, and network communication technology.

Our key services are design, implementation, commissioning, and operational support for:

. Control Systems Package
. Process Control Network & Communication Package
. Electrical and Instrumentation Package
. Process Control Optimisation in Mining and Material Handling

Our portfolio can be found in https://ecengineering.com.au

Description

Our detailed professional engineering services are:
.   PLC, HMI, SCADA, and RTU Design, Programming, Maintenance, Commissioning, and Upgrade
.   IT/OT Automation Design and Implementation
.   Process Control Network Design and Implementation
.   Industrial Fieldbus and Networking Design and Implementation

.   Variable Speed Drive Design and Configuration
.   Protection Relay Configuration
.   Instrumentation Design and Implementation
.   ELV & LV Automation Equipment Design
.   Processing Plant Optimisation and Commissioning
.   Industrial Control Systems and Automation Project Management

Associations

> Engineers Australia

> Hirschmann

Products & Services

> Traditional PID Control Systems Design (Cascade control, Feed-forward control, Constraint control)

> Advance Control Systems Design (Smith Predictor control, Fuzzy logic control, Model Predictive Control)

> Plant Control Systems Scheme Design (Plant Sequence Control, Plant Feed Management Control)

> Process and Machinery Optimisation (Cone Crushers, Thickener, HPGR, Screening, Stockyard)

> HMI and SCADA Hardware Design

> HMI and SCADA Software Programming

> Alarm Rationalisation

> Graphical User Interface Optimisation

> PLC Hardware Design

> PLC Software Programming

> Automation, Control Systems, and IOT, Product Integration

> Process Control Network Design

> Network Device Software Programming

> Industrial Fieldbus Network Design

> Industrial Fieldbus Software Programming

> Electrical Intelligent Device Programming (Incomer Protection Relay, VVVF/VSD, Soft Starter, Earth Leakage Relay, Motor Protection Relay)

> Electrical Panel design (ELV and LV)

> Instrumentation Design and Configuration

Industries Served

> Construction & Engineering

> IT & Communications

> Mining

> Oil, Gas & Energy

> Professional Services

Major Clients

> Tasman Power

> Rio Tinto

> Fusion Networks Australia

> Powerline Plus

> FMG

Facilities and Equipment

> ELECTRICAL, INSTRUMENTATION, CONTROL SYSTEMS, AND COMMUNICATION NETWORK PRODUCT EXPERTISE:

> Schneider Electric (Unity Pro, Concept, ProWorx, Citect Studio/Citect SCADA, Vijeo Designer, Wonderware System Platform, TeSysT, Altivar, JR900, Connexium)

> Allen Bradley/Rockwell (RsLogix 500/5000, Studio 5000 Logix Designer, Fuzzy Logic Designer, Factory Talk View SE/ME, PowerFlex, E300, Stratix)

> Beckhoff (TwinCAT3)

> WAGO/IFM (CODESYS)

> PILZ (PAS 4000)

> Fieldbus (Modbus / Modbus Plus, Profibus DP/PA, DeviceNet, ControlNet, IO-Link, AS-i, HART)

> Cisco (IE3000, 4010, 2000)

> Radio and RTU (Aviat, Cambium, Elpro, MIRI)

> Instrumentation (VEGA, Endress and Hauser, Pepperl and Fuchs, Yokogawa, Emerson, ABB, SICK, SIEMENS, EMFLUX, SMC)

> INDUSTRY EXPERTISE:

> Iron Ore Plant Process (Wet, Dry, and Concentrator)

> Coal Plant Process (CHPP)

> Material Handling Process (Stacker, Reclaimer, and Train Load Out)

> Waste Process (Thickener and Waste Fines)

Previous Significant Projects

2019
Cake Thickness Profiler
$100,000

Client: Rio Tinto

Deliver electrical and control systems packages to provide a cost effective profiling solution that applies to material handling and processing industry.

Application: Vacuum belt filter cake thickness profiling with flooding detection feature.

2019
Process Control Network Audit and Optimisation
$150,000

Client: Rio Tinto

Analyse and optimise plant process control network to minimise unnecessary network storms down time.

Scope of Works:
- Network traffic audit
- Network equipment audit and upgrade
- Optimise Layer 2 redundancy implementation with RSTP and MRP capability
- Optimise Layer 2 network storms protection with Hirschmann products

2016
Stockyard Wireless Radio Seamless Redundancy
$175,000

Client: Rio Tinto

Provide engineering solution to deliver a seamless communication redundancy using wireless radio technology in process control network for Stockyard Machinery.

2019
Hirschmann to Rockwell Network Switch Migration
$100,000

Client: FMG

Provide configuration specifications, solutions, and implementations to migrate Hirschmann (Power MICE) control systems network products to Rockwell (Stratix) control systems network products.

Standardise Layer 2 and Layer 3 network switch implementation to process control network and integration to corporate/IT network.

2019
Proworx 32 to Unity PLC Upgrade
$100,000

Client: Rio TInto

Provide engineering services to upgrade PLC hardware and software for Stockyard Management System PLC and Water Pumping Stations.

The project involves electrical and control systems design from Quantum platform to X80 platform, and migrating LL984 ladder logic to Unity Pro Function Block

2015
Modbus Plus to Ethernet Remote IO
$300,000

Client: Rio Tinto

Provide engineering solution to eliminate ongoing issue with modbus plus remote IO for iron ore dry plant.

The project involved electrical, communication, and control system designs for 1000 I/O for Schneider Electric PLC (Quantum and Momentum hardware)