

Australian Control Engineering



Engineering Smart Utilites

Hi ,

The Holiday season has arrived! It has been a very busy year for both ACE and our wonderful clients. We would like to take this opportunity to wish everyone a safe, happy and relaxing holiday period. As we look forward to working with you in 2023, here are some of the highlights of our work and industry development during the past month:

Reduce Risk of Attacks on Your OT Infrastructure - ACE Audit



Unlike IT systems that value confidentiality and integrity first, OT systems are served with a risk management measure known as:

Safety-Reliability-Productivity.

Details are as follows:

1. **Safety** - Covers activities designed to ensure the safe operation of a facility.
2. **Productivity** - After safety comes concerns relating to the risk of slowed or disrupted operations as a result of a cyberattack.
3. **Reliability** - The recent rise in ransomware attacks on OT operators demonstrates the importance of system reliability.

On average, around the world, eight of nine attacks on OT infrastructure in 2019 caused shutdowns across multiple plants. The perpetrator asked for large sums of cash — **up to \$10 million in some cases!** These attacks were particularly focused on industries where cyber security insurance policies are common.

Three categories of OT Security threats were common:

- OT cyber security frameworks
- Insider threats
- Targeted third-party threats

Since COVID19, there has been a skill shortage in Australia, even more so with the engineers who have worked across OT and IT areas with hands-on Control Systems and SCADA knowledge. To address this challenge, we are focusing our engineers on the delivery of internal and external SCADA and control system security audit for the utilities industry.

Our team conducts the audit against the **IEC 62443** and **ISA 99** standard as well as the client's OT cyber security plan.

We are currently reviewing and auditing the control system network of a large critical energy infrastructure in Australia to identify gaps in OT controls, along with remedial actions that protect the business from lost revenue, loss of customers, and even fines from unplanned events.

Interested to know more? We invite you to download load a whitepaper on SCADA & Control System Security:

[Download Whitepaper >>](#)

Find out more...

Do you have concerns about security of your OT assets? Follow the link to schedule time with an OT engineering specialist to learn how you can improve your OT cyber security and reduce potential losses:

[OT Security Concerns? Contact Us >>](#)

ACE and Delta Build Strong Relationship...



Yu Jordan Zhao (ACE, Managing Director) was very pleased to meet with **Alan Chou** (Delta Electronics, APAC Manager) and **Ankit Parikh** (Delta Electronics, Business Group Manager). ACE and Delta had a

constructive conversation on the latest electrical products (VSD, VFD), Smart Factory, IIOT as well as the potential applications in both the current and developing Electrical, Instrumentation and manufacturing market.

This relationship enables ACE to provide a wider range of Electrical, Instrumentation, SCADA, Control System and Instrumentation engineering design and integration services to the utilities industry. Yu Jordan Zhao looks forward to working with the “Delta” team to provide enhanced support and innovative solutions to the local market.

ACE Growth Strategy Focuses on Innovation and Sustainability...



Why is innovation and sustainability important in business? We believe that innovation and sustainability go hand in hand. That’s why we have created our own unique growth strategy.

Whilst focussed on smart utilities, ACE focuses its growth in the following areas:

1. Innovation:

ACE is predominately an Operational Technology service provider. We take advantage of innovation in 2 ways:

Firstly, by constantly researching the latest technological applications available in the marketplace. In addition, by encouraging our employees to think outside the box for clever process solutions to problems.

Furthermore, our team is building strategies for automating the industrial processes with less human intervention. To make this a reality, the application of AI and Data Science is required. We are looking forward to more projects needing AI in water, agriculture, renewable energy and the transport sectors. Thus, providing smart utility solutions requires a team who can accept and implement the advancements in automation and control systems. It appears from our experience that many of our competitors are aware of these innovations but are not acting on them. Our confidence in recommending and demonstrating these advancements is what sets us apart.

We want repeat business and ACE does not lose clients. We receive invitations to return time and time again. In short, we're getting gratifying feedback that our work is exceeding our client's objectives. This is the best kind of metric we have for measuring our success as an innovative company.

Rapid changes in technology are being embraced by progressive companies, giving them the edge. We work hard to test new technologies to make sure they are fit for purpose. That can provide proof of concept for our clients, so they are comfortable incorporating the best equipment into their portfolios. Additionally, the adaptation of quality, cutting edge technologies developed globally can make the difference to our clients. By keeping them competitive, cyber safe and removing the dangers of having obsolete and out of support equipment and services.

2. Sustainability:

ACE has been working on projects to upgrade the SCADA technology for many of the 113 wastewater treatment facilities spread over

Western Australia. Our client is committed to the sustainability and climatic resilience of our cities and towns and so are we. The effects of climate change drying up the water supply in our dams. In addition to, the ongoing population growth in WA exacerbating both the reduction of available water and the increase in wastewater processing requires smarter devices. Improving how the control and automation of water treatment and conveyance is accomplished can hugely benefit the environment.

Developing programs that can intelligently optimise existing assets to boost reprocessing of waste. By reducing the frequency of pipe fractures in the water network and using smart algorithms to reduce the impact on the environment.

Optimising the way data is obtained and analysed allows the Water industry to make educated decisions on how to operate their network to gain efficiencies.

For other clients seeking a net zero goal, the more intelligent devices that can be installed to give up to date data can make all the difference.

ACE has projects to achieve just that and to add renewable power generation wherever possible. Examples include transitioning from traditional gas-fired and coal-fired energy to bio-mass and solar sources. We can gauge our success at environmental sustainability by the amount of repeat business we receive. When we help our clients reach their ESG (Environmental, Social, and Governance) goals, particularly those related to loss, carbon minimisation, and waste reduction, we know we are acting appropriately and at the appropriate time.

Follow the link below to watch a short video on a ACE's business growth strategy by **Andrew Rowe** (ACE Growth Manager).

[Watch Video - ACE Growth Strategy >>](#)

ACE has been Successfully Re-accredited ISO 9000:2015 Certification



ACE has a clear Health, Safety and Environment (HSE) philosophy of delivering safe, reliable and sustainable outcomes for all of our stakeholders. Our commitment is reinforced through a robust approach to Quality Assurance from project commencement through to operational support, training and compliance.

In Dec the ACE HSE system has been successfully re-accredited to ISO 9000:2015 standard. The certificate is shown above.

Finn Embarks on His First Site Trip - Successful Delivery of Site Acceptance Test



ACE Young Engineer (Finn) had his first site trip and successfully delivered a SAT (Site Acceptance Test) on a diesel backup power facility for a local data center building.

Since joined ACE 12 months ago, Finn has had significant growth in not only technical skills, but also professionalism and leadership. He delivered several automation projects in various utilities industries including, Water, Power, Transport and Fuel Farm.

From each project, Finn learned a different brand of SCADA & Control System Software and Hardware including Siemens, Schneider, ABB, GE, Phoenix etc.

Through his annual performance review, ACE management discussed career goals with Finn for the next 5 years. There is no doubt that Finn is set to have a fast-tracked growth in his engineering competence.

The ACE Team Share Ideas at the 2022 Annual Staff Meeting...



In early December the ACE team came together for the annual staff meeting. This was an important and highly informative session where we discussed:

1. A review the current company policies and objectives
2. Discuss how each individual can impact the achievement of the objectives and client satisfaction.
3. Review all relevant safety and environmental practices, including a review of the Company Risk Register.
4. Ideas for improvement, quality and assurance - and also a vision for the future

The quality of the presentations was excellent and the insights gained at the meeting provided a strong foundation for our continued growth in 2023.

The 2022 ACE Christmas Party was Enjoyed by All...



The ACE Christmas Party is always a big event for our client, partners, families and staff members at our various office locations. The 2022 celebration, on the river shore, certainly did not disappoint. It was a great opportunity for guests to enjoy drinks and share fun memories from the past year - and also celebrate the successes achieved in 2022. Of course, we are all looking forward to an even bigger and better 2023.

We invite you to visit the ACE website for a host of valuable information including white papers, case studies and latest developments in the industry.

[White Papers](#)

Case Studies

Industry Blogs

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