



Call for Papers

From PLC & SCADA to 4IR: The Industrial Implementation Conference (IIC UK) Birmingham, UK

At its core, this conference addresses the journey organisations are undertaking as they modernise industrial systems built on PLC and SCADA foundations, in alignment with the 4th industrial revolution (4IR), also known as Industry 4.0.

As industries become more connected and data-driven, reflecting the transition to Industry 4.0, the role of the engineer is evolving beyond traditional control systems to encompass data integration and AI-enabled operations. This shift is driving demand for practical skills to integrate new technologies, extend legacy systems, and deliver measurable improvements in performance and reliability.

This conference responds to that need, bringing together practitioners to share current experience across the full journey, from PLC and SCADA through to data, analytics, and intelligent operations.

It starts with the fundamentals, machines controlled by PLC and SCADA systems that keep operations running every day. From there, the challenge becomes connecting and unifying these systems, often across multiple vendors and generations of technology, in line with digital transformation goals.

Focus is on the evolution of industrial systems from PLC and SCADA foundations through integration, data infrastructure, and advanced technologies, including analytics, AI and 4IR-enabling capabilities.

It is a practitioner-led technical conference designed for engineers, system integrators, Original Equipment Manufacturers (OEMs), and industrial end users working in live operational environments that connect systems. We prioritise practical experience, real implementations, and lessons learned.

What We're Looking For

Projects through to deployments/OEMs' implementation
Engineering challenges and solutions
Measurable outcomes and lessons learned

Presentation Formats

Technical Deep Dives (30–45 minutes)
Hands-On Workshops (limited availability)

Who Should Submit

- PLC & SCADA Engineers
- System Integrators
- OEM Engineering Teams
- Industrial Software Developers
- Automation & Control Specialists
- End Users (Manufacturing, Energy, Utilities, Infrastructure)

Topic Include

Track 1: Legacy PLC/SCADA system Modernisation

- Extending the life of legacy PLC/SCADA systems
- Integrating older systems with modern technologies
- Avoiding proprietary lock-in
- Cost-effective upgrade strategies
- Lessons from brownfield environments

Track 2: Data Integration & IT/OT

Practical methods for transforming raw machine data into structured, usable datasets.

- Data modelling, structuring, and contextualisation
- Building data pipelines (OPC UA, MQTT, APIs)
- Bridging OT data into IT/data platforms
- Data readiness and infrastructure requirements
- Integrating analytics into operational workflows
- Organisational and engineering challenges
- Lessons from failed or underperforming initiatives

Track 3: AI & Predictive Maintenance

- Condition monitoring techniques
- Predictive models in real environments
- AI/ML for failure prediction and anomaly detection
- AI-driven maintenance optimisation
- Integration with maintenance workflows
- Measuring impact (downtime, cost, reliability)
- Scaling beyond pilot projects

Track 4: Cybersecurity in Connected Industrial Systems

- Securing PLC, SCADA, and OT networks
- Risks introduced by connectivity and integration
- Practical implementation of security frameworks
- Incident response and lessons learned
- Balancing security with operational constraints

OEM & Industry Contributions (Encouraged) (OEMs are welcome to submit case studies)

- The session is not product-focused or sales-driven
- Content is based on deployments
- Lessons are transferable across technologies
- Focus remains on engineering challenges and solutions