At the end of this course participants will have an understanding of:

- Fundamentals of SCADA systems
- Essentials of SCADA software configuration
- Tricks and tips in installation of SCADA systems
- Essentials of data communications
- Use of Industrial Ethernet in SCADA systems
- OPC and SCADA systems
- SCADA network security issues
- How to troubleshoot SCADA systems
- Specifying PLC hardware and installation criteria
- Describe PLC software structure
- How to write medium level PLC programs (using ladderlogic)
- Troubleshooting a typical PLC system
- Specifying PLC systems

**YOU WILL LEARN HOW TO:**

**WHO SHOULD ATTEND:**

- Instrumentation and Control Engineers
- Electrical Engineers
- Design Engineers
- Consulting Engineers
- Instrumentation Technicians
- Process Control Engineers
- Engineering Managers
SCADA has traditionally meant a window into the process of a plant and/or a method of gathering data from devices in the field. Today, the focus is on integrating this process data into the actual business, and using it in real time. In addition to this, today's emphasis is on using Open Standards, such as communication protocols (eg IEC 60870, DNP3 and TCP/IP) and 'off-the-shelf' hardware and software, as well as focusing on keeping the costs down. PLCs continue to gain in popularity. In fact, many SCADA applications use PLCs as the RTU of choice, when communicating with field devices. This comprehensive course covers the essentials of SCADA and PLC systems, which are often used in close association with each other.

To obtain the greatest benefit from this course, you should have a reasonable degree of familiarity with the concepts of control systems. A selection of case studies are used to illustrate the key concepts with examples of real world working SCADA and PLC systems in the water, electrical and processing industries. This course will be an excellent opportunity to network with your peers, as well as to gain significant new information and techniques for your next SCADA/PLC project.

Although the emphasis of the course will be on practical industry topics highlighting recent developments, using case studies, the latest application of SCADA, PLC technologies and fundamentals will be covered. The workshop is aimed at those who want to be updated on the latest developments in SCADA and PLC systems and want to get a solid appreciation of the fundamentals of their design, installation and troubleshooting.

This course is designed to benefit you with practical up-to-date information on the application of PLC and SCADA systems to the automation and process control industries. It is suitable for people who have little or no exposure to PLCs, but expect to become involved in some or all aspects of PLC and SCADA installation. It aims to give practical advice from experts in the field, to assist you to correctly plan, program and install a PLC with a shorter learning curve and more confidence. While the workshop is ideal for electricians, technicians and engineers who are new to PLCs, much of the material covered will be of value to those who already have some basic skills, but need a wider perspective for larger and more challenging tasks ahead. The accompanying manual includes contributions from a number of experts and will become a valuable reference manual includes contributions from a number of experts and will become a valuable reference.