

**Course Name: Electrical Controls - PC Ladder Logic, Relay**

**Hours to complete:** 1.00

**CEUs:** 0.10

**Description:**

In this course, learners will discuss control system theory and will be taught the fundamentals of basic logic, relay logic, ladder logic, as well as programmable logic controllers (PLCs). They will learn the basics of networking, hardware and integrated safety systems and how they work with control systems to enhance the performance of those systems. Finally, they will review the importance of maintenance and of planning for hardware and software that will undoubtedly become obsolete.

**Audience:**

This program is designed for ride owners/operators, maintenance, inspectors and other amusement personnel who require continuing education and training for maintaining their certification to work in their respective positions per AHJ regulations and/ or company policies. This program is also ideal for individuals wishing to remain current on latest industry trends, standards and best practices applicable to their day to day job duties as it relates to their role.

**Specific target audience includes:**

Ride device, water slide, water attraction, trampoline and adventure course maintenance personnel, owner/ operators and management.

**Prerequisites:**

Participants enrolling in this course:

- Must have access to a mobile device or computer with connectivity to the internet for viewing the content within the learning management system.
- Must log in with their unique email and password credentials to access their course materials.
- Must have access to a stable, high speed Internet connection for optimal viewing of the content to minimize potential for buffering of multimedia in learning programs.

**Evaluation:**

Successful course completion includes:

- Review of the module content in its entirety
- Successful completion of the module quiz
- Completion of the module course evaluation survey.

Upon successful completion of all modules, participants must complete the course survey and then will have access to download their credentials and any associated CEUs.

**Outcomes:**

Participants in this course will

1. Discuss control system theory.

2. Understand fundamental basic logic, relay logic, ladder logic and PLCs.
3. Learn how networks, hardware and integrated safety systems work with control systems to enhance performance.
4. Review the importance of planning for long-term maintenance and/or obsolescence of PLC hardware and software.

**Expectations:**

Students will watch a learning module of content from the AIMS 2020 Safety Seminar video series and complete the assessment quiz at the end of the module.