

LIFT & ESCALATOR INDUSTRY ASSOCIATION

SCF4 Electronic Systems & Controls for Lifts

Course Content

Lift Control and Management Systems

- Control System Arrangement
- Collective Control Strategies
- Up Peak and Down Peak
- Group Control Strategies
- Lift Management Systems

Microprocessor Basics

- Microprocessor Construction
- Basic Microprocessor System
- Microprocessor Operation
- Binary Codes
- Analogue, Digital and Interface Circuits
- Programmable Logic Controllers (PLC's)

Switching Devices

- Basic Bi-polar Transistor Operation
- The Thyristor
- Losses in Semiconductor Switching Devices
- The Insulated Gate Bipolar Transistor (IGBT)
- Application of Switching Devices

Converters and Inverters

- Basic Thyristor Converters
- Three phase converters
- Inverters
- The Matrix Converter

Motors and Transducers

- Traction Type Induction Motor
- Variable Frequency Induction Motor
- Synchronous Motors
- Transducers

Variable Speed Drives for Lifts

- The Load Characteristics of a Lift System
- Performance Criteria for a Lift Drive
- Closed Loop Control with a D.C. Motor
- Closed Loop Control with a Traction Type Induction Motor
- Variable Frequency Systems

Safety of Users

- The Inspection Operation and Re-leveling
- PESSRAL

The Installation

- Protection and Protective Devices
- Electromagnetic Compatibility

