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