

# The Sixth Dimension: Training



THE 6<sup>th</sup> DIMENSION

We provide comprehensive training programs, both onsite and office-based, tailored to meet our clients' specific needs. Our courses cover a wide range of topics, from basic system operation to advanced troubleshooting and maintenance. By equipping teams with essential skills and knowledge, we ensure they can effectively operate and maintain their automation systems.

## Training course on Machine Safety

### Course Contents:

#### Day 1:

- Introduction of ProQual – ASQ (also PBO Secure – SST if permitted)
- Introduction of Trainer and the team
- BS EN ISO 12100:2010 brief history
- BS EN ISO 12100:2010 Scope (inclusions and exclusions)
- Important terms
- Risk Assessment
- Hazard Identification
- Risk Estimation & Evaluation
- Risk Reduction
- Information for use
- Documentation of Risk Assessment & Risk Reduction
- Practical session for Hazard identification Risk assessment

#### Day 2:

- Recap of Day 1.
- IEC 62061 brief history
- IEC 62061 Scope (inclusions and exclusions)
- Important terms
- Management of Functional Safety,
- Safety Related Electrical Control System (SRECS)
- Requirement specifications
- Design & Integration
- SIL, Software Safety requirements,
- Information for use Validation Modifications
- Documentation

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### Course Contents:

#### Day 3:

- Recap of Day 2 & Discussion on Homework.
  - ISO 13849 1 & ISO 13849 2 brief history
  - ISO 13849 1 & ISO 13849 2 Scope (inclusions and exclusions)
  - Important terms
  - Design Considerations: General, Performance levels, Relation of ( PLr ) with
  - Safety functions
  - Categories and their relation to MTTFD of each channel, DCavg and CCF
  - Fault consideration, fault exclusion
  - Validation & Maintenance
  - ISO 13849 2: Validation Process,
  - Validation by Analysis & Testing
  - ISO 13849 2: Validation of Safety Functions, PL & Categories
  - ISO 13849 2: Validation of Environmental, Maintenance & Technical
  - Documentation
- Examination: Multiple choice questions, No negative marking.
  - Duration: 3 days (For both Online & Offline)