SIL4S SIL for Safety	SIL4S Tanúsító és Tanácsadó	
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The „Proven in Use” Company	E-mail:	bgs@sil4s.hu

Dear Colleges,

SIL4S Kft announce starting of new one day Process Safety courses with conditions see below.

Cost of the training courses: **450 € / person / day**.

Number of minimum attendees: **10 person**.

Place: **upon request**

The courses are taking into consideration the specialty of different industrial segment like oil and petrochemical, chemical, food and Pharmaceutical Industry or Factory Automation.

1. **EN 61508 and EN 61511 Process safety Standards, Course code: *SIL4S_TC_***
   - **Suggested profession**: Process Engineer, Process Control Engineer
   - History of Process Safety Standards
   - EN 61508 life cycle model
   - EN 61508: goal and requirement of 16 life cycles
   - Difference between EN 61508 and EN 61511
   - EN 61511 life cycle model
   - EN 61511: goal and requirement of 8 life cycles
   - EN 61511: „Functional Safety Management”, verification and validation
2. **Hazard and Risk analysis. Course code : *SIL4S_TC_H&R***
   - **Suggested profession**: Process Engineer
   - Goal of Hazard and Risk analysis
   - Requirements of Hazard and Risk analysis
   - Basic principle of Hazard and Risk analysis
   - Techniques of Hazard and Risk analysis
   - HAZOP standard
   - Company target matrix
   - Outputs of HAZOP
   - HAZOP in practice (practical example)

3. **Allocation of Independent protection Layers, LOPA, SIL calculation. Course code : *SIL4S_TC_IPL&LOPA***
    - **Suggested profession**: Process Engineer, Process Control Engineer
    - Goal of allocation
    - Requirement of allocation
    - Principle of independency
    - Independent protection layers
    - SIL calculation methods
    - LOPA
    - Outputs of LOPA
    - LOPA in practice (practical example)
4. **SIS designs. Course code : *SIL4S_TC_SIS_Design***
    - **Suggested profession**: Process Control Engineer
    - Goal of SIS design
    - Requirement of SIS design
    - Basic of SIS design: Safety Requirement Specification (SRS)
    - SIS design : Principle if independency in the SIS design
    - SIS design : sensors
    - SIS design : logic solvers
    - SIS design : actuators
    - SIS design : power supply
    - SIS design in practice: Sample documentation
5. **SIS installation and commissioning. Course code : *SIL4S_TC_SIS_I&C***,
    - **Suggested profession**: Process Control Engineer
    - Goal of SIS installation and commissioning
    - Requirement of SIS installation and commissioning
    - Installation and commissioning, company practice
    - FAT, for Logic Solver
    - Installation and commissioning of Logic solver
    - Installation and commissioning of field devices

- SAT, Site Acceptance Test
- Documentation and verification of Installation and commissioning
- Practical example

6. **SIS Maintenance. Course code : *SIL4S_TC_SIS_Main***
   - **Suggested profession**: Process Control Engineer
   - Goal of SIS maintenance
   - Requirement of SIS maintenance
   - Maintenance in Company practice
   - Proof test interval
   - Trip test procedures
   - Maintenance of field devices
   - Maintenance of Logic solvers
   - Documentation and verification of Maintenance
   - Practical example
7. **SIS validálás. Course code : *SIL4S_TC_SIS_Valid***
   - **Suggested profession**: Process Engineer, Process Control Engineer
   - Goal of SIS
   - Requirement of SIS validation
   - Validation in Company practice
   - Validation of field devices
   - Validation of Logic solvers
   - Documentation and verification of validation
   - Practical example

8. **Management of Change (MoC). Course code : *SIL4S_TC_SIS_MoC***

- **Suggested profession**: Process Engineer
- Goal of SIS Management of Change
- Requirement of SIS Management of Change
- When the Management of Change come into force?
- Management of Change in Company practice
- Management of Change of Field devices
- Management of Change of Logic Solvers
- Documentation and verification of Management of Change
- Practical example

SIL4S offer: Process Safety

Best Regards,

Baradits György

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B A R A D I T S György
Managing Director
Functional Safety Engineer
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