

Project Evaluation Criteria

The different tasks of the homework are graded with different weights as follows.

1. Functional analysis (Weight 20%)

- Is it easy to read and understandable?
- Explanation and justification of assumptions
- Is the list of input/output signals complete?
- Is the list of alarms complete?
- Meaning and justification of interlocks?
- Is the naming convention consistent and understandable?
- Is the P&ID provided and complete?

2. Automation architecture (Weight 20%)

- Is it easy to read and understandable?
- Explanation and justification of assumptions
- Are the most important elements of the system described?
- Mapping of functionality onto hardware and software components?
- Description of interaction between components (information flow)?
- Partitioning into levels (are the different parts on the right level of the pyramid?)
- Selection of PLCs/IO modules (suitable? explained? How many?)
- References given to product website, etc.?
- Are the fieldbuses / network protocols specified, and do they match the requirements (bandwidth, latency)?

3. Supervision (Weight 20%)

- Is it easy to read and understandable?
- Are the requirements for the choice of SCADA complete?
- Is the selection of the SCADA system justified based on the market survey?
- Are the PLC protocols chosen in Task 2 supported by the SCADA?
- Are the hierarchical principles respected for the synoptic views?
- Are the design principles given in the class adhered to for the developed views?
- Is the concept of “data is not information” respected?

4. Qualitative Dependability Analysis (Weight 20%)

- Is it easy to read and understandable?
- Explanation and justification of choice of method (FMEA and/or FTA)
- Explanation and justification of assumptions
- Completeness (are the most important elements of the analysis described?)

5. Presentation (Weight 20%)

- Is the presentation easy to follow?
- Do the slides support the presentation?