

# Dependable and Secure System

## Project assignment

May 8, 2017

The candidate will model the very same system introduced in the Multi-proc tutorial, with the simplifying assumption that the *error handler* modules and the *I/O port* modules are **fully reliable** and considering the system operational if at least two computers are working.

The coverage values, the cpu module and the memory module are the same of the tutorial.

Vary the values of the chip failure rate from 0.0008766 to 0.0035064 with a multiplicative factor of 2.0.

- 1) Evaluate the reliability of the system after 20 years, varying the number of computers from two to three.
- 2) Compare the previous result with the reliability of the simplex system (one computer) after 20 years.

The candidate can apply the modifications on the model embedded in the application.

Every candidate will present his or her implementation of the project at the oral exam