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Title: Development of an open-source testbed based on the Modbus protocol for cybersecurity analysis of nuclear power plants
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Submitted to section: Cyber Security and Critical Infrastructures

Dear Authors,
I would like to thank you for the opportunity to read your paper "Development of an open-source testbed based on the Modbus protocol for cybersecurity analysis of nuclear power plants"!

The problem described in the article is relevant, because the possibility of cyber-attacks against critical infrastructure, and in particular nuclear power plants, has prompted many efforts by academia, governments and international organizations. Many of these works aim to capture the vulnerabilities of the industrial control systems used in these plants through computer simulations and hardware in the loop configurations. However, the attainment of general results in this area are limited by the cost and diversity of existing commercial equipment and protocols, as well as by the inherent complexity of the nuclear power plants themselves.
In this context, this work introduces a testbed for assessment of cyber-attacks against a realistic simulation of nuclear power plant. The proposed environment is based on a simulated Modbus/TCP network environment containing basic industrial control elements provided by open-source software integrated into the Asherah nuclear power plant simulator. The authors also validate the proposed architecture by performing and analyzing a cyberattack in this environment.

The topic is actual and of interest. Title is interesting and clear and appropriate to the paper's subject matter. The research area is identified clearly. Keywords are proper.

Research results are presented objectively and logically using 33 figure.

Conclusions are correctly and logically derived from the evidence and/or arguments, presented data.

The authors has chosen the appropriate way to explain themselves using adequate material from accessible and standard sources. The study is based on a source material consisting of 42 sources of a condensed and periodical nature. Source documentation linked to own descriptions and characteristics exhibits competence and takes account of the global achievements dealing with the discussed issues.

I believe that this paper will be of interest to the readership of your journal.

Below are several suggestions that I hope will be helpful in the paper:
Abstract fully and clearly expresses goal, but the main methods and the methodology needs to be explained.
Referencing could be more accurate and unified – sometimes whole name is written, sometimes only the surname.