Review of: "Implementing Simulation Software to Develop Virtual Experiments in Undergraduate Chemical Engineering Education"

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Potential competing interests: No potential competing interests to declare.

Review of the “Implementing Simulation Software to Develop Virtual Experiments in Undergraduate Chemical Engineering Education” manuscript

General comment:
The manuscript has relevance in science and in education too. The topic is important and useful nowadays. The authors show some essential software that can be used in chemical engineering education. The implementation of virtual labs improves many skills, like teamwork and problem-solving, of the students.

It is really useful that the operation of PID controllers is demonstrated in a MATLAB environment. Maybe it could be interesting to demonstrate the same situation with UNISIM design software with dynamic simulation.

Here are some remarks about the present version of the manuscript:

- Figure 7 – Figure 12: The axes labels are missing from the diagrams.
- Page 11/21: The same sentence is written twice. One of them should be deleted.

“The response for different integral time constants is shown in Figures 9 and 10. The response curves for different integral time constants for the servo and regulator problems are shown in Figures 9 and 10.”

- Page 12/21: From the diagrams in Figure 9, it is not true that the maximum deviation from the desired value decreases with a decrease in τI for servo and regulator problems. It is only true in the case of regulator problems.
- Page 13/21: In the marked part of the text, instead of τI, the authors should use τD.

“…four different derivative time constant values of τI = 0.5, 1, 2, and 5 were set to study…”

- Page 18/21: What is the meaning of FOSSEE? The authors should write the whole name of it, not only the abbreviation.