2024 Control Advent Calendar

"24 Days of Control Wonders: Holiday Fun for All"



The Control Advent Calendar is an innovative idea that was successfully launched with its first edition in 2023. In a nutshell, this calendar aims at capturing the interest of students and the general public about key control concepts and the societal relevance of control through 24 Christmas-themed funny questions answerable from Dec 1st to Dec 24th.

Given the success and positive reception of the first edition, we are pleased to announce that this year we have decided to carry out the second edition of the control advent calendar. This event not only seeks to continue the tradition of discovering and enjoying control theory, but also to foster participation and a sense of community among all members.

We invite the entire community to participate in the creation and execution of this year's Control Advent Calendar by submitting Christmas-themed control-related questions. The 24 questions that will be selected for the 2024 Control Advent Calendar will become a special issue of the *"Control Engineering Exercises"* journal we are testing. Questions should be submitted to the e-mail address: advent@ctrl.tu-berlin.de

For more information, please read the back side, and if you have any inquiry please send us an e-mail!



Organizing Committee

Prof. Steffi Knorn Prof. Damiano Varagnolo Dr. Helem Sánchez Dr. Damiano Rotondo

Important Dates

- Submission of the questions (first draft):
 September 30th
- A Reviews collected: October 16th
- First round of selection by the committee and first decision notification: October 21st
- Submission of the revised questions (in cases where revision is needed): November 4th
- Final round of selection by the committee and final decision notification: November 8th
- Submission of the final version of the questions:
 November 15th

GUIDELINES ON HOW TO CREATE THE QUESTIONS

- Questions must be Christmas-themed. Questions that do not satisfy this first and foremost requirement will be desk-rejected.
- Questions and solutions shall be accessible by the general public, and thus understandable without a control engineering background (no control lingo and no typical control formulas, transfer functions, etc!).
- Questions shall though touch control-related concepts and "teach" something to the readers.
- Questions should be thoroughly revised to ensure that the correct solution is indeed the only correct one and follow the underlying control concept's logic.
- Questions should include:
 - ⇒ A question body and a few answer options (multiple choice, no other question format will be accepted).
 - \Rightarrow A proposed solution / explanation of the question and the correct solution
 - ⇒ A part about "and what has this to do with me / real life / real problems?!". This short text should be a layperson's explanation of the meaning of the principle and where it is used.
 - ⇒ An accompanying picture is not mandatory (unless required for answering the question), but would be appreciated.

The submission can be a .doc or a .tex file, with Latex submissions being preferred. We would particularly appreciate if the submission follows the IFAC94.sty LaTeX style (If you are interested, we will send you the file \rightarrow send us an email!).

• Questions should be submitted to advent@ctrl.tu-berlin.de ; the same e-mail address can be used to send a "notice of interest".

WHAT IS THIS CONTROL ENGINEERING EXERCISES JOURNAL?

This journal:

- Is still under definition and testing, so you will find little information in the Internet about it is intended for promoting sharing open access control education resources.
- It shall enable teachers to submit their most interesting conceptual exercises (with their solutions) for peer review. The material will then be published with a DOI, and be citable (i.e., an author may say, when submitting their own exercise, that it connects to some other specific ones, effectively thus citing them).
- It shall *not* collect simple procedural or memory recall exercises, but rather material that addresses misconceptions about key concepts in control engineering.