

Dipartimento di Ingegneria "Enzo Ferrari"

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# System and Control Theory – 9CFU or 6CFU (May 26<sup>th</sup>,2020)

### WHAT is NEEDED

- ✓ Scheme for reporting the answers to be printed (perhaps in multiple copies in case of errors) available in the appendix to this document. Note that the scheme remains the same for all tasks and that there are two separate schemes for 9CFU or 6CFU
- ✓ PC (fixed or portable) or Tablet with webcam for video surveillance and text viewing
- ✓ Mobile phone with the google classroom app (you need to authenticate in the app with your UNIMORE account) installed for the delivery of the work
- $\checkmark$  university document or badge for recognition
- ✓ sheets, pen, calculator. Do not use light colored pencils or pens to avoid problems (readability) when transmitting the task.
- ✓ Matlab installed on your PC or via VPN trough unimore

### Schedule

- $\checkmark$  You can register on ESSE3 up to a week before the exam date
- Until the day before the exam it is possible to enroll in the classroom indicated in an email from the teacher (those who do not enroll will not be able to participate the test)



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- ✓ Before the test, the answer form for the test (9CFU or 6CFU) to be taken must be printed
- $\checkmark$  On the day of the exam, at the agreed time:
  - o connect to the meet, at the address indicated in the teacher email
  - connect to the classroom indicated in the teacher email where the exam text will appear
- On the day of the exam, at the end of the time allotted, the task performed must be delivered via the classroom app installed on your smartphone. To facilitate the correction, the forms with the answers must be photographed or scanned keeping the smartphone in a vertical position. A copy of the bad product sheets must also be sent below.
- ✓ Once the task is delivered, you can disconnect from the meet (it is not possible to disconnect before even in case of withdrawal)

### ASSIGNEMENT INSTRUCTIONS

- Before the assignment, print the answer form available in the appendix to this document
- Place your PC at a distance of 60-100 cm so that the webcam frames the candidate (face and torso) and the portion of the plane on which he will work during the task. It is possible to place the PC frontally (preferable) or in a lateral position if the dimensions of the support surface do not allow you to do otherwise. Place the mobile phone on the table in a visible place facing downwards.
- Connect to the classroom class related to this Exam. It is necessary to register for the class in the previous days (at least the day before) using



the code that will be sent to the students through ESSE3 (check the institutional email!).

- Connect to the google meet link that was sent in the email containing the classroom code. Unless you forget, you will find this link also in the classroom stream, in a welcome post.
- Once all the members have presented themselves, or in any case when the starting time has arrived, the appeal is made and the candidates identified. The appeal is answered by framing the personal document on the computer camera, together with the response form that the candidate has already filled in with name, surname, serial number and signature.
- Once the recognition operations have been completed, the text of the complete task (quiz + problems) is sent within the google classroom, see Figure 1.
- It is necessary to open the test text and carry out the task with pen and paper as in a standard written appeal, except that the results must be reported in the form provided (each in the position indicated in the text)
- You can use MATLAB for solving the problems.
- At the end of the time allowed (120 minutes) it is necessary to photograph or scan the completed answer sheet by telephone (the sheet must therefore be filled in as it progresses) and send it via google classroom. After the forms with the answers, copies of the bad sheets must also be sent to confirm the authenticity of the answers produced and to be used if technical problems occur, such as the difficulty in reading the answers due to the incorrect focus (however, please to



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carefully check the copies sent). Apart from the mentioned case, the bad copies will not be considered during the correction anyway.

• The class will be closed 5 minutes after the end of the exam (in any case classroom records the delivery time)

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Figure 1: google classroom (on a PC) Italian version

Last Name:	Name:	Number:
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# System and Control Theory (9CFU/6CFU) Answers of the assignment in Date:

**Exercise answers:** For each exercise, report the final result and the main steps used for the solution. Please, try to use an intelligible writing.

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#### If needed, draw the PLOTS hereafter

