### **Smart Factories (SMFE)**

Lecturer:

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Schedule of lectures: according to the timetable schedule and agreement in cases when necessary, starting on  $2^{nd}$  of October 2024 and ending on  $17^{th}$  of January 2025. (Wednesday 16:00-17:30 CET). The exam period is from  $20^{th}$  of January 2024 till  $16^{th}$  of February 2025.

Within the lectures, the students will have 2 midterms (Colloquium) as follows:

1st midterm exam: the content based on first half of lectures. The date will be defined later (usually after 7-8 lectures so that 7 lectures are included). The result (the grade) is multiplied with the weight 0.4.

2nd midterm exam: the content based on second half of lectures. The date

will be defined later (usually at the end of semester, covering lectures from 8-9 to 15). The result (the grade) is multiplied with the weight 0.4.

And

**Group presentations, team work (mandatory)** on particular topics. The first student presentation starts in week 4-5 (it depends on number of groups, teams and thus number of potential weeks). The group of 4 students will research for articles and conference papers (2 articles or 2 conference papers, the assistant will help you finding the appropriate material) to present their view on the topic. Some use cases, practical examples are welcome. The oral presentation will be evaluated and taken into consideration in finalizing the theoretical exam (the weight is 0.2). The tea presentation will start in 4<sup>th</sup> or 5<sup>th</sup> week with the first team. The rules and all other details about team work, creation of teams and presentation will be given on week 3 when we know the exact list of students.

All details about the way of writing the midterm will be defined later and you will get all the information on time.

All details about the oral presentations and the topics will be given when we know the exact number of students and define the teams.

In case that the COVID situation is good, the  $1^{st}$  and  $2^{nd}$  midterms will be written in presence at Faculty of Mechanical Engineering. In case, that the

COVID situation will be critical, the midterms will be executed on-line (ZOOM, e-learning room, platform). You will be informed about that on time.

A positive grade is achieved if the student reaches at least 50%. If one of the midterms is negative (the score is below 50% but more than 20%), only this midterm can be repeated **at official exams during the first examination period**. In case that the first midterm is negative and at the same time the achieved percentage is above 40%, the additional oral improvement of the grade is possible upon the agreement with the professor. If a student fails both midterms, he/she must pass exam of the entire subject (official exam period).

# Students with a positive grade (min. 6 out of 10) of both midterms as well as the oral presentations and exercises, pass the exam.

The average of weighted grades obtained from both midterms as well as the grade of exercises is the base for the final exam grade. Those who pass the exam with midterms **SHOULD APPLY FOR THE EXAM** in the first examination period after completing the lectures. Only in the first examination period, the positive exam can be improved with an oral examination.

Examination period and the exam timeline (VIS system):

Please check the timeline in VIS system.

### How to sign up for the exam:

The registration and check-out of the examination period takes place according to the rules that apply to the Faculty of Mechanical Engineering (FS) and are available in Student's office at FS or on the FS website. Anyone who does not attend the exam and does not check-out from the exam beforehand, his examination deadline falls due even if he does not come to the exam. We do not return exam forms.

#### **EXERCISES**

Mandatory presence at laboratory exercises: 80%, otherwise, the exercises are not successfully completed and the students cannot obtain the exam grade. In the case of missing the exercise, the student should bring the proper document showing his/her excused absence.

Exercises are carried out in one group and start in the 2<sup>nd</sup> (3<sup>rd</sup>) week of the teaching process. The exercises are carried out in the LASIM laboratory (explained and shown in Introduction exercise).

The second possible implementation of exercises is the seminar work, team work. Each team will get particular topic related to the smart factories. The team prepare the seminar and Power point presentation, which will be presented at the end of exercise period, last weeks of semester.

In case that the health situation will not allow the physical execution of laboratory exercises at the Faculty-laboratory premises in Ljubljana, all laboratory exercises will be executed on-line.

## Website of laboratory LASIM: http://web.fs.uni-lj.si/lasim/

Website of Smart factory:

https://web.fs.uni-lj.si/lasim/index.php?page=Smart-factories

Password for lecture and exercise material: given by mail and in the first

lecture. Ii6M3l8e

E-learning room, education platform FS:

https://e-ucilnica.fs.uni-lj.si/course/view.php?id=23

Key for self-enrolment in E-education platform FS: given by mail and in the

first lectures. Ii6M3l8e

Ljubljana, 2.10.2024

Prof. dr. Niko Herakovič Asst. prof. dr. Marko Šimic