Instructions & Grading Procedure

SS 2020 TU WIEN

Professor retd Dr.sc. Dr.mult.h.c.Prof.h.c. Branko Katalinic's Lectures

Introduction

Dear Colleagues

I hoped that we will be able to have standard live lectures and exams at the University till the end of June. Two days ago I was informed that due to the COVID-19 situation all live lectures at the University are definitively cancelled. At this moment it is impossible to perform an online lecture. I am updating the course every year and therefore a script is not available. It is very important for me to impart the latest knowledge and experiences to my students, and the students can benefit the most from knowledge imparted through their active participations in live lectures.

Many students (Erasmus program, BOKU, TU students) need to complete my lectures. In this extraordinary situation we are making the following procedure:

▸ Students will receive detailed instructions with a step-by-step procedure. Likewise, links to relevant literature are provided. Study the literature and prepare the presentation. This presentation will be evaluated and used for grading.

Follow the instructions and make your best effort.

Have a nice day,

Professor B Katalinic

Orientation

- Go to www.daaam.info
- Scroll to the bottom of the web page
- Select *Section for TU Vienna Students* link
- This instructional file is available for download there

Step 1 – Registration & Topic Proposal

- Fill in the form with the required data
- Propose 3 topics as "Title" – "Short Description"
- In the next 3 slides we provided you with several suggestions for each course
- Suggestion: You can propose 2 topics related to the given suggestions and 1 additional topic which you are passionate about (hobby, thesis, personal preferences etc…)

- If everything done OK, you will instantly get a confirmation email titled "Registration & Topic Proposal" with your entered data

Step 1 – Registration & Topic Proposal

Suggestions for 311.007 - Flexible Systems:

▸ Design Steps in the development of flexible manufacturing systems
▸ Scheduling structures, strategies and their realizations
▸ Examples of FMS
▸ Development trends
▸ Flexible automation
▸ Technical equipment
▸ Components and subsystems of flexible manufacturing systems
▸ Industry 4.0

Step 1 – Registration & Topic Proposal

Suggestions for 311.745 – Intelligent Manufacturing Systems:

▸ Intelligence in nature

▸ Characteristics and definitions of intelligence

▸ Methods of Artificial Intelligence

▸ Application of AI in the scheduling of production systems

▸ Actual state and development trends

▸ Intelligent systems

▸ Chances and risks of implementation of AI in the industry and society

▸ Examples.

▸ AI tools for the scheduling of intelligent production systems

▸ Interaction between man and intelligent machine/system.

▸ Industry 4.0

▸ Digital Age in automation

Step 1 – Registration & Topic Proposal

Suggestions for 311.084 – Selforganizing Production Systems:

- Self-organization in nature. Examples and explanations!
- Intelligence in nature
- Characteristics and definitions of self-organization
- Principe of Self-organization
- Application of AI in the scheduling of production systems
- Actual state and development trends
- Intelligent systems
- Chances and risks of implementation of AI in the industry and society
- Examples.
- AI tools for the scheduling of intelligent production systems
- Interaction between man and intelligent machine/system.
- Industry 4.0
- Digital Age in automation

Step 1.1 – Registration & Topic Proposal

- After we review your topics, you will get an email titled "Topic Confirmation", with the acceptance of one or rejection of all proposed topics

- If rejected, try again with other topic propositions, until one of the topics is accepted

Step 2 – Presentation Upload

- Fill in the form with the required data
- Select and upload the file (in .pptx or .pdf file format)
- If everything done OK, you will instantly get an email titled "Exam Presentation Upload"

- If you did not receive this confirmation email – something was wrong! (invalid email address, wrong file format, confirmation email mistaken for spam...)

Preparation of the Exam Presentation

Key Elements:

- Title of Presentation
- Student Key Data with Photo
- Introduction
- Conclusion
- References

Format:

- Submission only – without oral presentation
- Key points: visuals, design, information presentation, balance, concepts, details, precision

Red Line is yours, Materials are not!

(The presentation must be made with clear design and not as "patch work" – Red line means there is a central idea which is presented in a structured way)

Literature sources

According to the selected topic, literature sources could include:

▸ TU Vienna – IFT Group Publications: Link

▸ Katalinic B. – Industrieroboter und Fertigungssysteme für Drehteile: Link

▸ General internet-based research (with valid references) as a supplementary literature source

Presentation Naming Structure

- LastName_FirstName_311. 077 (for Flexible Systems)
- LastName_FirstName_311. 084 (for Selforganizing Production Systems)
- LastName_FirstName_311. 745 (for Intelligent Manufacturing Systems)

or

LastName_FirstName_311.xxx.pptx   LastName_FirstName_311.xxx.pdf

Basic Rules

- Presentation has to be in Microsoft PowerPoint .pptx format (if you are using open office or similar, save the file as .pdf file). You can choose any template, layout and design.
- You can use English or German language
- Use standard referencing format
- Presentation must have **minimum of 50 slides** with obligatory introduction at the beginning and conclusion at the end
- The presentation must be made with clear design and not as "patch work"
- The presentation must be clearly declared as an exam presentation with the name of Course and Lecture, Institution and semester.
- The presentations will not be orally presented – only upload is necessary.

Capital Mistakes

- Only complete presentations (50 slides) with required materials will be evaluated
- Misuse of old presentations or "team work" with more students with same/similar presentations will be not evaluated
- Don't include "secret", "confidential" or "special creation" materials in your presentation
- Don't protect your presentation and materials with passwords or with read only access
- Don't call us by phone and don't send us presentations by e-mail, as they will be not evaluated.
- Presentations submitted AFTER the deadline will not be evaluated

Grading Procedure

- ▸ Due to the COVID-19 situation, there will be no written exams in this semester
- ▸ Therefore, the final grade is based only on the submitted Exam Presentation
- ▸ If you wish to receive a grade for all 3 lectures you need to prepare 3 individual presentations according to the given instructions

Help?

- Make sure to **read the F.A.Q** on the website first!

- Only in case that does not help, feel free to contact us