Welcome to the information meeting for bachelor projects in the spring of 2022

- **Kurt Jensen – responsible for the bachelor project course**
  - Lectures & common activities
  - Brightspace pages
  - Formation of groups, etc.
- **Program for this information meeting**
  - I will give a brief presentation of the rules for bachelor projects and the organisation of the bachelor project course (20 minutes)
    Questions are very welcome during my talk
  - Each of the research groups will give an 8 minutes' presentation of the group and the bachelor projects they offer
  - Meet advisors from the different research group (outside auditorium)
- **Slides from this information meeting**
  - All slides can be found on the Brightspace page **Lectures (with slides and videos)**
- **The rest of this talk will be conducted in Danish**
  - Students enrolled for bachelor courses must be able to speak Danish
  - Slides will be in English (to help advisors who do not speak Danish)

Number of students and workload

- **There will be a total of approximately 125 students doing their cs / it bachelor project in the Spring of 2022**
  - Approximately 100 within cs, and 25 within it product development
  - Officially, there are two different bachelor project courses, but in practice, they are organised as a single course with one Brightspace page and common lectures
- **The workload of the bachelor project is 15 ECTS**
  - In the first half of the semester, you are expected to spend 15 hours per week
  - In the second half of the semester, you are expected to spend 30 hours per week

Advisors

- **It will be possible to make the bachelor projects within the following research groups**
  - Algorithms, Data Structures and Machine Learning (Chris Rene Schwiegelshohn)
  - Bioinformatics (Christian Storm Pedersen)
  - Collaboration and Computer-Human Interaction (Susanne Bødker)
  - Computational Complexity and Game Theory (Srikanth Srinivasan)
  - Cryptography and Security (Ivan Bjerre Damgård)
  - Data-Intensive Systems (Ira Assent & Davide Mottin)
  - Logic and Semantics & Programming Languages (Andreas Pavlogiannis & Jaco van de Pol)
  - Ubiquitous Computing and Interaction (Hans-Jörg Schulz)
- **The person(s) in parenthesis is the point of contact for the research group**
  - The actual advisor for a given project may be another person from the research group

Learning goals (from official course descriptions)

- **Qualifications**
  - After the course you will have obtained **detailed knowledge** and practical experience with a **specific area** within cs / it product development
  - The course will train you in independently **seeking information**, **planning** and **conducting** a project, and **communicating** the results of your project
  - You will obtain experience in reading and understanding **scientific papers**
  - After the course you will be able to:
    - **formulate** a cs/it **academic problem** based on **relevant literature**
    - **implement** a **written assignment** during the use of cs/it academic **methods**
    - **apply** cs/it **theories** and **methods** to an academic problem
    - **analyse** a cs/it **academic problem** using **relevant literature**
    - **discuss** and put in **perspective** a cs/it academic problem
- **Contents**
  - The course will give an **introduction** to key texts and results within **several emerging areas** of cs / it product development
  - You are required to obtain further overview through **independently seeking additional literature** within a chosen area
  - Under supervision you **plan a project** investigating a problem with theoretical and/or experimental methods
  - Finally, you report the results of your investigations in a **written report**

Report and oral exam

- **Bachelor project report**
  - The bachelor project report must be handed in no later than **June 8**
  - The size of the report is **maximum 30 pages** (excluding front page, abstract, table of contents, appendix and bibliography)
- **Oral exam in June**
  - The report is the basis for an **individual 30 minutes' oral exam**, where you **present** the findings of the bachelor project **followed by a discussion**
  - A common grade is given for the written report and the oral exam
  - An external examiner (censor) participates in the evaluation of the report and the oral exam
- **Re-examination**
  - If you do not pass, it is possible to resubmit a revised version of the report no later than August 15

Proposals for bachelor projects

- **On the Brightspace page of bachelor project course you can find a number of proposals for bachelor projects**
  - You are encouraged to speak with the contact person for the corresponding research group in order to obtain additional information
  - You may be redirected to another advisor in the research group
  - Several bachelor groups can do the same project
- **You are also allowed to formulate your own project**
  - If you do this, you must contact the research group to obtain approval
  - You can also contact a research group and ask, whether they are willing to formulate a project proposal within a particular area
- **The bachelor projects are performed in groups of 1-3 persons**
  - It is possible to have mixed groups with both cs and it students
  - Groups with 4 or more persons are not allowed (by the formal rules)
- **Each group can expect to get 20 hours of supervision**
  - This includes the time to read report drafts, the final report and make the examination
  - To improve quality and efficiency, your advisor may organise joint activities across groups

We strongly recommend groups with 2-3 persons

- **You learn a lot from working in a group**
  - It is an important job competence to be able to work efficiently with other people
- **Groups are much more stable and solid than individuals**
  - If one group member has a "bad day", gets depressed, or makes a significant misjudgement, the other group members are likely to get her/him "back on track"
  - The chances of a group "getting stuck" is **much smaller** than for a person working alone
- **Groups produce better results**
  - Groups will always have larger and more diverse competences than a single person
  - Group members will have a much more detailed knowledge of your work than the advisor
  - It will often be much faster to consult other group members than to set up a meeting with the advisor
  - The discussions in a group improve the outcome and the result
- **Groups get higher grades**
  - Statistics from spring 2019: 3-persons: 9,9, 2-persons: 9,4, 1-person: 7,8
  - To work alone you need to contact the intended advisor to obtain approval

Choice of partners and projects

- **It is important to have good partners (group members)**
  - You should agree upon the level of ambition
  - Your schedules should allow you to meet and work together many hours each week (this is not trivial, so it should be checked/planned)
  - It is fruitful that group members span different backgrounds and knowledge
  - The discussion forum (on the Brightspace page) has a topic, where you can advertise for students who may want to join you for a particular project
- **It is much more important to choose good partners than to choose a particular project**
  - Many projects within a research area (or even neighbouring areas) require and train the same skills and competences
  - The choice of a research group may be vital, but the choice of the actual project within that group is often of much less importance

Registration of groups

- **When you have formed a group and chosen the research group in which you want to do your bachelor project, you must register your group**
  - This is done on the Brightspace page **Registration of bachelor project groups**
  - Registration will be open on **Monday November 29** and the registration must be done before **Monday January 17**
  - All members of your group must register by joining the **same** pre-defined bachelor group
  - You can only register in **one research group** (if you register in several groups, I will delete all your registrations)
- **Each research group has a limited number of groups that they will be able to supervise**
  - Groups are accepted on a first come first served basis, and hence it is strongly **recommended to register as early as possible**
  - To register you do **not** need to have chosen a concrete bachelor project, but you need to have formed a group of 1-3 persons and decided which research group you want to work with
  - The **maximal number** of groups for each research group is 15 (except Bioinformatics where it is 5)

Bachelor project "contract"

- **Within the first week of the semester each group makes a bachelor project contract, which is a 1-3 page document containing**
  - Provisional title, advisor, group members, language, word processing tool and other tools to be used in the project
  - A short description of your project (10-20 lines, which may be a slightly modified version of the project proposal)
  - Provisional table of contents with a number of sections (corresponding to work tasks), and the proposed number of pages for each section
  - A time plan describing when the different work tasks should be finished
- **The contract helps you to**
  - organise your work in a suitable way, so that you achieve a good final result
  - adjust expectations between individual group members, and between the group and the advisor
  - make an informed judgement of how much you will be able to do within your project
- **Having 4½ months may seem as "infinite time"**
  - But with 4 work tasks and time to write the introduction and summary, plus time to collect existing drafts of sections into the final report, you actually have at most 2 full time weeks per work task
- **The contract should be updated with regular intervals during your project**

Lectures

- **Monday January 31**
  - Lecture: **How to make a useful bachelor project contract** (by Kurt Jensen)
  - Followed by a meeting with the advisors from your research group
- **Monday February, 14**
  - Lecture: **How to write an academic paper** (by Kurt Jensen)
- **Monday February, 28**
  - Lecture: **Publication traditions and literature search** (by Kurt Jensen)
- **Monday March 14**
  - Lecture: **How to make proper charts and graphs** (by Hans-Jörg Schulz)
- **Monday March 28**
  - Lecture: **How to make a good oral presentation at the exam** (by Kurt Jensen)
- **If you have proposals for additional lectures (or other common activities), please send me a mail or make a posting on the discussion forum**

Brightspace page for the course

- **You should on a daily basis read (and react to)**
  - "Announcements" which contain important information from me about things you must remember to do (or avoid)
  - The postings on the “Discussion forum”
  - Mails which I send to you via Brightspace (via your AU mail account)
  - If you miss some of this information for a longer period of time, you may get into serious problems (or loose valuable efforts/time)

- **Each research group has a separate Brightspace page where you can find different kinds of material from the research group**
  - You will find these pages under "**Material from the individual research groups**"

That's all for now… … questions