Assessment criteria and grading rubrics

**Criterion 1: Independent work**

*Professional planning, accomplishment and follow-up*

Grading rubrics: Planning, Accomplishment, Follow-up, Independence

- *The student plans her/his work professional by*
  - writing a clear and reasonable project plan,
    - Is the problem/commission clearly formulated?
    - Are the sub problems reasonable and on sufficiently detailed level?
    - Has an appropriate in-depth study been choosen?
  - being open for different views and think about different ways to solve some sub problems.

- *The student accomplishes her/his work on a professional way by*
  - carrying out projects/working duties within given frameworks,
  - revising the planning/project plan adapting to time and sub problems,
  - appearing for scheduled meetings on time and well prepared,
  - adapting to regulations at the company where the thesis work is done,
  - carrying out projects/work according to ACM/IEEE Code of Ethics and Professional Practice (se http://www.acm.org/about/se-code). For example,
    - Act to the benefit of the general public’s and mandator’s best
    - Strive for the completed product/system/software to meet the highest standards available
    - ...

- *The student follows up her/his work on a professional way by*
  - updating the supervisors on the progress of the work
    - Delivers regular and worthwhile status reports
    - Pursue a project diary/blog

- *The student shows independence by*
  - taking initiatives to meetings, reviews and discussions,
  - drifting the work ahead and coming up with ideas of her/his own,
  - proving ability for creativity and innovation.
Criterion 2: Scientific and Engineering work

**Scientific and Engineering contents and results**

Grading Rubrics: Objective wording and surrounding world analysis, Methodical conditions, Scientific/engineering sustainable results, Discussion results, Progression in the subject

- The student formulates clear objectives and gives a reasonable analysis of the current situation by
  - clearly formulating the problem, the issues, the research questions and/or the hypotheses/assumptions,
  - clearly re-engaging to related research/development.

- The student creates appropriate methodical conditions by
  - choosing adequate methods,
  - clearly justifying and describing the ways of working and the methodology.

- The student reaches scientific/engineering sustainable results by
  - using the methods correctly,
  - integrating knowledge from different parts of the education,
  - carrying out experiments, implementations and/or theoretical tasks carefully and showing good familiarity with the subject.

- The student discusses the results on an objective way by
  - drawing reasonable conclusions,
  - elucidating restrictions and problems and the good of the results,
  - indicating possibilities for future works.

- Progression in the subject
  - There are no requirements that the work should lead to progression in the subject, but if this is the case it is considered distinguished positive.
Criterion 3: Presentation and opposition

Written report (layout)
Grading Rubrics: Presentation/layout, Scientific writing

• The student presents the material on an understandable way by
  o organizing the contents in a good way,
  o treating the language well and having a balanced terminology in the subject,
  o presenting figures and tables on a clear way making them understandable without other information than the legends of the figures/tables,
  o writing the report with good coherence and cohesion.

• The student uses a scientific/engineering way of argumentation by
  o presenting well-founded assertions,
  o formulating the problem/issue on a clear way,
    ▪ Is the problem well-founded and motivated in the introduction?
    ▪ The introduction should put the issue into a larger context
  o relating the problem to earlier research,
  o defining those central concepts that are included in the report,
  o putting the results into a larger context, and evaluating the possible weaknesses of the work.

Oral presentation
Grading Rubrics: Presentation of the material, Describe/clarify initiatives of her/his own

• The student presents the material on a professional way by
  o outlining the contents well,
  o keeping up with time,
  o expressing the material in an understandable way tailored for the target group.

• The student describes and clarifies the initiatives of her/his own in the work
• The student implements the discussion with the opponent and the audience in a professional way

Planning and implementing of opposition
Grading Rubrics: Written basis of the opposition, Constructive implementation of the opposition

• Before the opposition takes place the student produces a written basis that mirrors the strengths and weaknesses of the work

• The student implements a constructive opposition by
  o discussing, for example, choices of methods and results in the work and not focusing on spelling errors and layout,
  o balancing the mix of comments on strengths and weaknesses,
  o referring, in the oral opposition, to the recent oral presentation