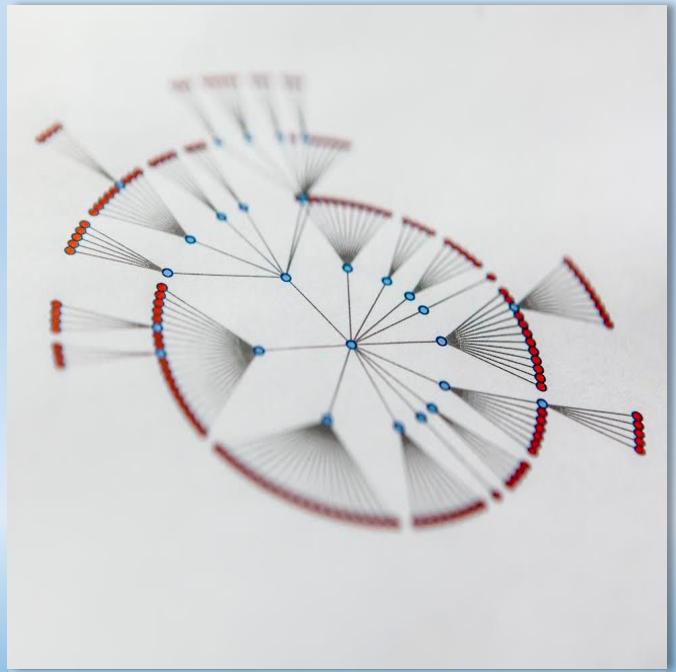


Combinatorial Optimization
B4M35KO+BE4M35KO

Grading System

To get an assessment, the following requirements have to be met:

- obtain at least 30 from 50 points.
  - 8 points for each test I,II (written at lectures).
  - 8 points for practical test (written at the lab).
  - 11 points for semester project.
  - 15 points for homework assignments No. 1-5 (3 points for each assignment if successfully submitted till the deadline).
- successfully solve all homework assignments.
- For more information, please check the course website https://cw.fel.cvut.cz/b172/courses/ko/start

Homeworks

- homeworks can be coded in **C++, Java or Python**.
- each homework (the source code) must be handed in to BRUTE (https://cw.felk.cvut.cz/brute) with a hard deadline, specified in BRUTE.
- it is graded automatically by the BRUTE.
- there is 1 penalty point for each commenced week until the homework is uploaded successfully (max -3 points penalty).
- check https://cw.fel.cvut.cz/b172/courses/ko/upload_system for technical requirements on the submitted source code.

Semester Project

- each student chooses from the following two options:
  1. **Cocontest**. Students participating in the contest implement a solver for one specific combinatorial optimization problem.
  2. **Research on chosen topic**: a student chooses a non-trivial problem from the combinatorial optimization area on which he/she will work during the semester. The topic must be approved by the lab teacher!
- each student expresses her/his choice of semester project by submitting a text file into UploadSystem with the strict deadline of 11.03.2018, 23:59 (1 penalty point for the late delivery).
- a student gets points only if he/she presents the project on the Lab #14.

Combinatorial Optimization Contest — Cocontest 2018

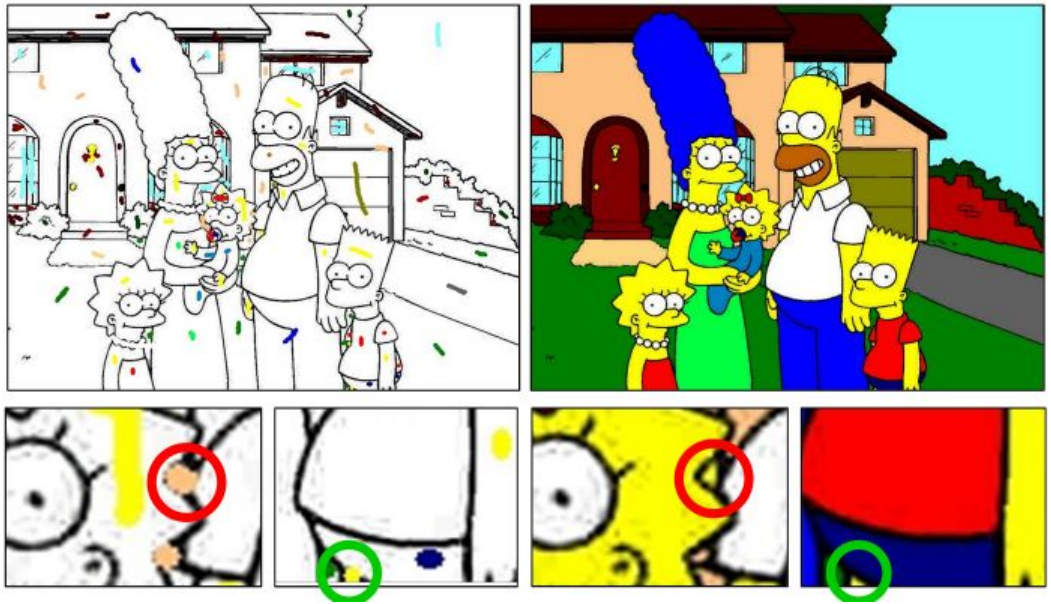
- **Optimization competition**
  - single real-life optimization problem.
  - the assignment is to implement the solver, no report needed.
  - solutions are evaluated by the BRUTE.
  - grading comprises both the ability to solve given instances well enough and the rating among the other students.
  - computation time of the solver on server is bounded.
- **Past Cocontests**
  - 2017 - **Settle-up Problem** “dlužníček” (winner Ondřej Benedikt)
    - http://rtime.felk.cvut.cz/~novakan9/cocontest2017/semester_project_cocontest.pdf
  - 2016 - **The Capacitated Facility Location Problem** (winner Vladimír Kunc)
    - http://rtime.felk.cvut.cz/~novakan9/cocontest2016/contest2016.pdf

Research on Chosen Topic

- students can solve a problem for some company, project, diploma thesis etc.
- the assignment has two parts: written report and implementation.
- submission is divided into 3 parts constrained by deadline.
  - 1 penalty point for the late delivery (for each part)
- written document is between 4 and 8 pages.
- the evaluation is performed by the student's lab teacher, it considers fulfillment of formal requirements and the work quality.

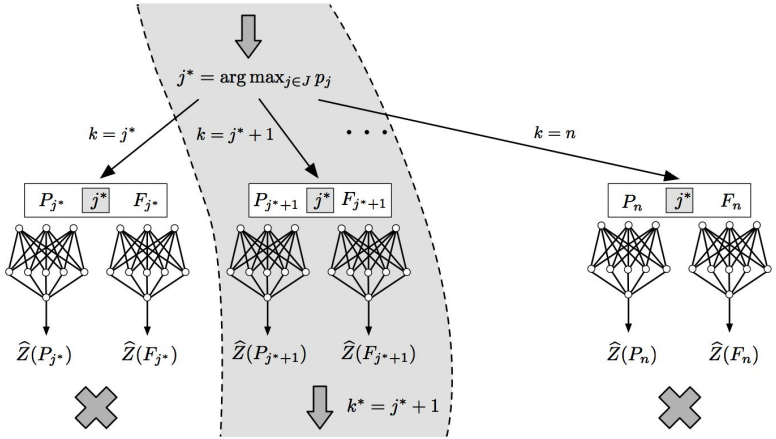
Past successful topics

Interactive image coloring



For more information about what we are doing, our projects, thesis topics etc., please visit:

http://industrialinformatics.cz/



CTU CZECH TECHNICAL UNIVERSITY IN PRAGUE

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INDUSTRIAL INFORMATICS DEPARTMENT