CE884: Constraint Satisfaction Contents

1. Overview
2. Problem Formulation (Z, D, C)
3. Problem Reduction – NC, AC, PC, DAC
4. Lookahead Search algorithms
5. Gather Information While Searching
6. Search Ordering
7. Stochastic Search – Hill Climbing, GSAT
8. Meta-heuristic Search – GENET, GLS, GA

Course Expectation

- You should be able to tell whether a given problem is a constraint satisfaction problem
- You must know the *principle* of everything covered in the syllabus
- You should know the *exact* definition of:
  - the consistency concepts NC, AC, DAC and PC
  - MWO, MBO, Smallest-domain-first ordering heuristic
- You should know *exactly* what they do:
  - FC, DAC- and AC-Lookahead, GSAT and GLS
- You should know what constraint programming can do for the real world