Algorithms and Data Structures II

Lecture 0:

Topics, Schedule, etc.

https://elms.u-aizu.ac.jp/

Instructor(s)

- Lecture:
  Nobuyoshi Asai(nasai)
- Exercise:
  Nobuyoshi Asai(nasai) : CS
  Taro Suzuki(taro) : IT-SPR
- TA:
  Yoshiyuki Saito(m5241141) (Lec. & Ex.(CS))
  Taku Matsumoto(d8201105) (Ex.(IT-SPR))

Schedule

1. 6/11 Algorithms and their Complexity (selection & merge sorts)
2. 6/15 Priority Queue and Heap (heap sort)
3. 6/18 Graphs and Representations (DFS & BFS)
4. 6/22 Weighted Graphs (MST, Prim's & Kruskal's Algorithms)
5. 6/25 Shortest Path Problem (SPST, Dijkstra ' s Algorithm)
6. 6/29 Transitive Closure(APSP, Warshall's & Floy's Algorithm, APP)
7. 7/02 Midterm examination
8. 7/06 Algorithm Design Techniques: Greedy Algorithms (Huffman encoding)
9. 7/08 Algorithm Design Techniques: Divide-and-Conquer(Strassen's algorithm)
10. 7/13 Algorithm Design Techniques: Dynamic Programming(matrix chain product)
11. 7/16 Algorithm Design Techniques: Backtracking (Eight queens)
12. 7/20 Random Number Generators(Linear congruential method)
13. 7/27 Randomized Algorithms (Prime number test)
14. 7/29 Models of Computations (Open MP)

Grading

1. Grading Points:
   - 1.1 Midterm Exam. : 30%
   - 1.2 Final Exam. 30%
   - 1.3 Exercises : 40%
   - 1.4 Bonus points, etc.
2. Details for Exams. $--> $ Later
3. Details for Exercise $--> $ Saito-kun(Ex. period)
4. Other important matters
   - 4.1 No more than 5 absents.
   - 4.2 Exams are required.