CSED601: Dependable Computing

Fall 2018: Mon & Wed 14:00 ~ 15:15

Instructor: Prof. Jong Kim

PIRL-Bldg. 437; jkim@postech.ac.kr; 279-2257

Office Hours: M-Th 16:00 ~ 17:00

Objectives

- Understanding the fundamental issues involved with providing dependable computing environments
- In-depth understanding of techniques for constructing dependable systems and software
- Understanding open research issues
- Gain practice and competence in reading, analyzing, presenting research papers.

Prerequisite and Special Requirement

- No Specific Prerequisite (Recommend CA, OS, Networks)
- Must attend all classes

Tentative Grading Policy

Homework/Quiz : 20%
Midterm : 20%
Final : 20%
Project/Presentation : 40%

Texts

- Jalote, "Fault-Tolerance in Distributed Systems"
- Barry W Johnson, "Design and Analysis of Fault-Tolerant Systems"
- Selected Papers

Lecture Schedule

Week 1 : Introduction & Overview Week 2 : Fundamental Definitions

Week 3: Design Technique

Week 4:

Week 5: Evaluation Technique

Week 6:

Week 7:

Week 8: Distributed Systems and Fault-Tolerance (mid-term)

Week 9 : Case Studies (Student Presentation)

Week 10: Case Studies (Student Presentation)

Week 11: Research Topics (Student Presentation and Discussion)

Week 12: Research Topics (Student Presentation and Discussion)

Week 13: Research Topics (Student Presentation and Discussion)

Week 14: Research Topics (Student Presentation and Discussion)

Week 15 Research Topics (Student Presentation and Discussion))

Week 16: Final Exam & Project Presentation