

DISTRIBUTED ALGORITHMS COURSE INFORMATION

Instructor: Assoc. Prof. Dr. Orhan Dagdeviren (www.orhandagdeviren.com)

Course Web Page: <http://akademik.ube.ege.edu.tr/netos/courses.html>

Time: Tuesday, 9:30-12:00

Assistant: Res. Ass. Mustafa Tosun (e-mails: mustafa.tosun@ege.edu.tr ,
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Aim and Content:

- This course aims to study distributed algorithm design, analysis and implementations.
- The course will especially cover distributed graph algorithms.
- Both theoretical (algorithm design and analysis) and practical aspects (implementation) of the topics will be introduced.

Course Book: Distributed Graph Algorithms for Computer Networks, Kayhan Erciyes, Springer, 2013.

Supplementary Materials (Not Full List):

1. Gerard Tel, Introduction to Distributed Algorithms (2nd ed.), Cambridge University Press, 2000.

2. Nancy Lynch, Distributed Algorithms, MIT Press, 1997.

List of Topics:

1. Introduction to Distributed Algorithms
2. Graphs
3. The Computational Model
4. Spanning Tree Construction
5. Graph Traversals
6. Minimum Spanning Trees
7. Routing
8. Self-Stabilization
9. Additional Distributed Computing Problems

Tentative Grading:

Programming Homeworks: 15 % (2 homeworks)

Written Homeworks: 25 % (6-7 homeworks)

Paper Presentation: 10 %

Written Exam: 30 %

Project: 20 %

Attendance.