In the name of Allah

40-823+ Advanced Digital Image Processing

Course Syllabus

Term:
Spring 1384 (2005)

Instructor:
Dr. S. Kasaei
Room 307
Department of Computer Engineering,
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Lecture:
Sundays & Tuesdays, 9:00-10:30, room Kh. 7.

Website:
The course website can be found at:
http://ce.sharif.edu/courses/~ce823/
Please check this site often for important announcements, files needed for computer exercises, and the PDF versions of handouts & homework.

Course Description:
40-823 + provides an insight to advanced image processing theory and techniques. Topics include: 2-D system theory, 2-D random processing, image transforms with particular emphasis on wavelet transform, advanced image enhancement, advanced image filtering and restoration, advanced image analysis, image/video compression, biometric techniques, advanced motion estimation, object tracking, content-based image retrieval, and image/video watermarking.

Prerequisites:
40-763 (Digital Signal Processing) or 40-933 (Digital Image Processing).

Credit:
3 units.

Text Book:
Additional topics will be included (e.g. video compression standards, wavelet transform, ...).
Reference Books:

Written Homework Problems:
Written homework problems will be assigned by the end of each chapter.

Computer Exercises:
Computer assignments will also be assigned over the course. They can be provided either in Matlab or C Languages.

Course Project:
There will be a course project, which can be proposed by the student. Students are supposed to present the final result, associated with related software & technical report.

Exams:
There will be one midterm and one final exam.

Grading Policy:
Written & computer assignments: 3 Points
Project: 3 Points
Project report: 1 Points
Project presentation: 1 Points
Midterm exam: 3 Points (hold at: 1384.1.25)
Final exam: 9 Points (hold at: 1384.3.25, 14:30)
Submitted paper: 2 Extra Points
**Project Topic Confirmation Due:**

1384.2.1

**Instructor Office Hour:**

Tuesdays, 17:00-18:00, room 315, CE, SUT.

**Teaching Assistants:**

*Mr. A. Abadpour*

*Mr. H. Pirsiavash*

Tuesdays, 11:30-12:30, Khodro Bld., room 203.

**Course E-Mail Address:**

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