EEM 463 Fall 2015 - Course Project Topics

• 3 or 4 persons in each group

• Course Project Timeline

• Proposal due: October 15, 2015

• Progress due: November 29, 2015 (submit 2 pages of your progress report)

• Presentations @ LAST week of lectures in December (24 or 31) (tentatively!)

• Report due same day of presentations!

• Here is a guideline for the report writing:

  1. Define the problem: What is the input? What is the output?

  2. Motivation: Why do this? What makes it difficult?

  3. Related work: What has been done? What are the problems?

  4. Algorithm: What did you try? What are the alternatives? Why you choose to try this? Justify your design decision.

  5. Result: Visualization of your result: screen capture, plot, example outputs. Add figures into your report.

  6. Evaluation: Does it work? How well it works?

  7. Analysis: Why it works or doesn't work? Can we make it better? How?

  8. Contribution division: Who did what?

DATABASES

Public medical image databases:

http://www.via.cornell.edu/databases/

http://brainweb.bic.mni.mcgill.ca/brainweb/ (BrainWeb: Simulated Brain Database)

Computer vision applications datasets:

http://datasets.visionbib.com/

A Multi-sensor Traffic Scene Dataset with Omnidirectional Video,

(1) Touching Cell Splitting

References:


(2) 2D or 3D Blob Detection

References:


### (3) Intelligent Traffic Control System Based on Image Processing

![Traffic light control diagram](image)

References


### (4) Investigation of Adaptive Histogram Equalization or Image Enhancement Techniques
References


3- Liang, Lingfei; Si, Yanna, "Medical image enhancement using sliding weighted empirical mode decomposition," in Information and Automation, 2015 IEEE International Conference on , vol., no., pp.3145-3148, 8-10 Aug. 2015

(S5) Segmentation in Chest Radiographs (http://www.isi.uu.nl/Research/Databases/SCR/)

http://www.isi.uu.nl/Research/Databases/SCR/results/browser.php
References


(6) OR SOME OTHER IMAGE PROCESSING PROJECTS THAT YOU ARE INTERESTED IN