CASMIP Lab Open Day

Computer Aided Surgery and Medical Image Processing Laboratory
Prof. Leo Joskowicz

Wednesday July 5, 2017  (9AM to 1:30PM)

Room B-220, Rothberg Family Building
The Rachel and Selim Benin School of Computer Science and Engineering
The Hebrew University of Jerusalem

The CASMIP Lab -- Computer Aided Surgery and Medical Image Processing Laboratory at the Rachel and Selim Benin School of Computer Science and Engineering invites all interested parties to the CASMIP Lab Open Day to be held on Wednesday July 5th, 2017 at the Hebrew University.

This half-day event will showcase projects and collaborations of the CASMIP laboratory in the fields of medical image processing and computer-aided surgery.

Highlights of the event include:

- Short presentations by ten students of the CASMIP lab on their projects
- A keynote lecture by Prof. Jacob Sosna, Hadassah University Medical Center
- An industry lecture by Elad Walach, CEO of Aidoc

The detailed schedule appears in the back of this page.

This event is a unique opportunity to familiarize yourself with these rapidly growing fields and learn first-hand from students and collaborators of their experience with computational biomedical research.

Students interested in the field and looking for laboratory projects, engineering projects, and theses topics are encouraged to attend.

Attractive student fellowships and employment opportunities are available for qualified candidates!

The event is open to all. Participation is free.

Registration is kindly requested by signing in a Google form:

CASMIP Lab Open Day Schedule

Wednesday July 5, 2017,
Room B-220, Rothberg Family Building

9:00-9:15   Greetings and Introduction
Prof. Leo Joskowicz
Director, CASMIP Laboratory, School of Computer Science and Engineering

9:10-9:45   Invited talk
Computational Radiology: where we are now and were we are heading
Prof. Jacob Sosna
Chairman, Division of Radiology and Medical Imaging, Hadassah University Medical Center
Chairman of the Israel Radiological Association

9:45-10:30   Session 1
1. Patient-specific and global Convolutional Neural Networks for robust automatic liver tumor detection and segmentation in follow-up CT scans
Refael Vivanti, Adi Szeskin (with A. Ephrat, Prof. J. Sosna, Dr. N. Lev-Cohain, Radiology Hadassah)

2. Computer-based follow-up evaluation of tumors after radiosurgery in MRI scans
Eli Ben Shimol and Ilia Marek (with Prof. Y. Shoshan, Dr. R. Eliahou, Neurosurgery, Hadassah)

3. Medical Content-Based Image Retrieval: automatic method for the retrieval of CT scans with similar liver lesion characteristics
Assaf Spanier (with Prof. J. Sosna, Dr. N. Caplan, Radiology Hadassah)

4. Segmentation and modelling of salivary ducts in cone-beam CT scans
Ido Lokay, Naama Antebi, Oren Shauli (with Dr. C. Brestel and Dr. C. Nadler, Oral Medicine, Hadassah)

10:30-11:00 Coffee Break

11:00-12:30   Session 2
5. Segmentation quality estimation without ground truth
Dror Cohen (with Prof. J. Sosna, Dr. N. Caplan, Radiology Hadassah)

6. Interactive segmentation correction based on uncertainty estimation
Elad Guttel

7. Interactive segmentation of fetuses in MRI scans
Michael Braginsky (with Drs. D. Ben Bashat, L. Ben Sira and D. Link, Tel Aviv Sourasky Medical Center)

8. Computer-aided diagnosis of sacroillitis in CT scans: method and first results
Clara Herscu (with Dr. A. Mayer and Prof. I. Eshed, Sheba Medical Center)

9. Online X-ray Radon space dose optimization in repeat CT scans
Naomi Shamul (with data from GE Healthcare, Tirat Hacarmel)

10. Reduced-dose imageless needle and patient tracking in interventional CT procedures
Guy Medan (with data from GE Healthcare, Tirat Hacarmel)

12:30-13:00 Invited company talk
Computational Radiology with Deep Learning: the new challenge
Elad Walach, CEO, Aidoc Ltd.

13:00-13:05 Concluding Remarks

13:05-13:30 Light lunch