Ninth Israeli Symposium on
Computer-Aided Surgery, Medical Robotics, and Medical Imaging

ISRCAS 2006 – SCHEDULE

Thursday, May 11, 2006

Medical Research Center Auditorium, Rabin Medical Center (Bellinson), Petach Tikva

8:00-8:30 REGISTRATION

8:30-8:45 Welcome and introductory remarks
M. Shoham and L. Jokowicz
Technion and Hebrew University, Israel.

8:45-9:45 Paper Session 1: Surgical navigation
Chair: A. Wolf.
1. Navigation-assisted cannulated hip screw insertion
I. Ibar, Y. Weiz, R. Mosheiff, A. Peys, M. Liebergall

2. Computer-aided navigation in total joint replacement
M. Bhattacharyya and B. Gerber
Univ. Hospital of Lewisham, London, UK.

3. Augmented reality for image-guided surgical navigation
R. Shamir, L. Jokowicz, and Y. Shoshan
The Hebrew University of Jerusalem and

4. A real-time hand gesture interface for a medical image
   guided system
J. Wars, H. Stern, Y. Edan, M. Gillman, C. Feied, et al
Ben-Gurion University of the Negev, Be’er-Sheva and
Washington Hospital Center, Washington, USA.

9:45-10:45 Paper Session 2: Medical robotics
Chair: A. Wolf.
5. Robotic replacement of the descending thoracic aorta
E. Porat, A. Staender, P. Herrera, R. Schnaibum,
A. Estrella, A. Aznadeh, H. Sali
Univ. of Texas, Houston, USA, and
Rabin Medical Center, Petach Tikva, Israel.

6. HARP: Highly articulated robot probe
A. Wolf, A. Degani, H. Chossot, M. Zenati
Technion, Haifa, Israel, and
Carnegie-Mellon University, and
Univ. of Pittsburgh Medical Center, Pittsburgh, USA.

7. Swimming micro robot for medical applications
G. Kosa, M. Shoham, and M. Zaaroo
Technion and Rambam Medical Center, Haifa, Israel.

10:45-11:15 COFFEE BREAK

11:15-12:00 Invited lecture 1
Imaging and simulation in otorhinolaryngology
Prof. M.P. Fried, M.D., FACS
Montefiore Medical Center, New York, USA.

12:00-12:45 Industrial Session 1
Chair: D. Toubia

12:45-14:00 LUNCH

14:00-14:45 Industrial Session 2
Chair: D. Toubia

14:45-15:30 Invited lecture 2
Medical augmented reality in surgery
Prof. Nassir Navab, PhD
Technical University of Munich, Germany.

15:30-16:00 COFFEE BREAK

16:00-17:45 Papers Session 3: Medical image
   processing and simulation
Chair: H. Greenspan.
1. The point spread function of spiral CT
G. Schwarzband and N. Kryati
Tel-Aviv University, Israel.

2. Segmentation of brain MRI by adaptive mean shift
A. Mayer and H. Greenspan
Tel-Aviv University, Israel.

3. Liver tumor segmentation and volume computation
   with user-guided 3D active contours
P. Katz, J. Sossa, and L. Jokowicz
The Hebrew University of Jerusalem and

4. Surface reconstruction and segmentation from
   volumetric data for medical analysis
S. Azemkoy, A. Fischler
Technion, Haifa, Israel.

5. Content analysis of uterine cervix images: initial steps
   towards content-based indexing and retrieval of cervigrams
S. Gordon, G. Zimmerman, and H. Greenspan
Tel-Aviv University, Israel.

6. Real-time haptic incision simulation using FEM-based
   discontinuous free-form deformation
at G. Sela, J. Subag, A. Linblad, D. Albocher, S. Stein,
G. Elber, G. Turkiyya
Technion, Haifa, Israel, and Univ. of Washington, USA.

17:45-17:50 Closing remarks
L. Jokowicz and M. Shoham
Hebrew University and Technion.

Coffee breaks are sponsored by Northern Digital Inc.