

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

ISRACAS'2004 – SCHEDULE

Thursday, May 13, 2004

Medical 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. Joskowicz  
Technion and Hebrew University, Israel.

**8:45-9:15 Paper Session 1: Neurosurgery**

**1. Real-time 3D ultrasound neuronavigation system experience with 114 cases**

M. Constantinescu, S. Abeshaus, et al.  
Dept. of Neurosurgery, Rambam, Technion, Israel.

**2. Intraoperative magnetic resonance imaging system with mobile radiofrequency shielding: Hadassah experience**

Y. Shoshan, S. Spektor, and F. Umansky  
Hadassah-Hebrew Univ. Med. School, Jerusalem, Israel.

**9:15-10:45 Paper Session 1**

**Computer-Aided Orthopaedic Surgery**

**1. The role of computerized navigation in fixating femoral neck fractures**

D. Ben-David, R. Mosheiff, Y. Weill, A. Peyser, and M. Liebergall  
Hadassah-Hebrew Univ. Med. School, Israel.

**2. Computerized navigation for closed reduction during femoral intramedullary nailing**

R. Mosheiff, Y. Weill, E. Peleg, and M. Liebergall  
Hadassah-Hebrew Univ. Med. School, Jerusalem, Israel.

**3. Navigation assisted two incision minimally invasive total hip arthroplasty: preliminary results**

Y. Weill, Y. Mattan, A. Kandell, and M. Liebergall  
Hadassah-Hebrew Univ. Med. School, Jerusalem, Israel.

**4. The assimilation process of navigated total knee surgery: comparison study during the learning curve phase**

D. Robinson, A. Garti, M. Yassin  
Dept of Orthopaedics, Rabin Medical Center, Israel.

**5. Initial experiments with SpineAssists - miniature robot for spinal procedures**

M. Shoham, M. Burman, and B. Silberstein  
Technion and Mazor Surgical Technologies, Israel.

**6. Robot-assisted distal locking of long bone intramedullary nails**

Z. Yaniv and L. Joskowicz  
The Hebrew Univ. of Jerusalem, Israel.

**10:45-11:15 COFFEE BREAK**

**11:15-11:45 Special Session** time subject to change

**Live Cardiac surgery with Zeus**

Dr. Alon Stamler, Rabin Medical Center

**11:45-12:30 Invited lecture 1**

*Synergy of man and machine in CAS*

Prof. K. Radermacher, PhD  
U. of Aachen, Germany.

**12:30-13:00 Paper Session 3: Cardiology**

**1. Navigation system for coronary catheter-based interventions**

R. Beyar and T. Wenderow  
Rambam, Technion, and NaviCath Ltd., Israel.

**2. Image analysis of Doppler echocardiography for patients with atrial fibrillation**

O. Shechner, M. Sheinovitz, M. Feinberg, H. Greenspan  
Tel-Aviv Univ. and Sheba Medical Center, Israel.

**13:00-14:15 LUNCH**

**14:15-14:45 Papers Session 4**

**Laparoscopy and Endoscopy**

**1. Endoscopic image orientation using magnetic sensor**  
G. Kosa, O. Salomon, G. Megali, O. Tonet, M. Zaaroor, and M. Shoham  
Rambam, Technion, Israel, and CRIM Lab., Italy.

**2. The Tonatiuh robot: hands-free laparoscopic navigation system**

J.L. Mosso, A. Minor, M.R. Olivares Montes de Oca  
ISSSTE, IMSS, and CINVESTAV, Mexico City, Mexico.

**14:45-15:30 Invited lecture II**

*Medical visualization and simulation*

Prof. H. Fuchs, PhD  
Univ. of North Carolina at Chapel Hill, USA

**15:30-16:00 COFFEE BREAK**

**16:00-17:00 Paper Session 5**

**Medical Image Processing**

**1. Use of holographic sensor for 3D computerized scanning of orthodontic cast models**

T. Weinstock, Y. Holdshtein, M. Redlich et. al.,  
Hebrew University, and Technion, Israel.

**2. Virtual study in three rare cases of visceral aneurisms and Budd-Chiari syndromes**

G. Fracastoro, R. Foroni, A. Guglielmi, et. al.  
Surgery Dept., Univ. of Verona, Italy.

**3. Novel registration system for robotically-assisted surgery without external optical tracker**

A. Natanzon, A. Vitchevsky, E. Batkilin  
ANAV Software and Mazor Surgical Technologies, Israel.

**4. Flexible needle steering for percutaneous therapies**

D. Glzman and M. Shoham  
Faculty of Mechanical Engineering, Technion, Israel.

**17:00 Closing remarks**

L. Joskowicz and M. Shoham,  
Hebrew University and Technion.