The 4th Israeli Conference on Robotics 2013

Tuesday November 19 2013

Registration

8:00 - 8:30 Coffee Break

8:30 - 8:45 Opening Session

8:45 - 9:00 Innovating Robots and Products Using Design Thinking, Prof. Bernard Roth, Stanford University

9:00 - 9:15 Will robots help democracies win "small" wars against terror? Prof. Ilan Ben Israel, Tel Aviv University

9:15 - 9:30 A road map for the use of robots by the Israeli Defense Forces, Colonel Eyal Yaron, IDF

9:30 - 9:45 Break

9:45 - 10:00 Human models for Humanoid design, Prof. Yosi Nakamura, University of Tokyo

10:00 - 10:15 B1. Panel discussion: Is Robotics the new high-tech industry?

Moderator: Yossi Yardi

10:15 - 10:30 A1. Robotics as a Growth Engine

Session Chair: Zvi Shiller

10:30 - 10:45 The accelerated growth of the domestic-robots market, Uri Fales, Robotron


10:57 - 11:10 Using robots to grow the hi-tech and production industry in Israel, Carlos Benaim, RoboLogics

11:10 - 11:30 B2. Agriculture Robotics 1

Session Chair: Yael Eden

11:30 - 11:45 Methodological design of an end-effector for a horticultural robot, Bart Van Tuijl, Ehud Wais, Yael Eden, Wageningen UR Greenhouse Horticulture

11:45 - 11:57 The Effect of Location and Orientation of Agricultural Targets for Optimal Robot Design, Victor Witch, Avital Bechar, Ami Degani, Technion

11:57 - 12:10 Hybrid Human-Robot (HHR) Collaborative Harvesting System, Shimon Y Not, Hao Zhong, Juan P. Wachs, and Avital Bechar, Purdue

12:10 - 12:30 C1. Industrial Automation

Session Chair: Erez Dotan

12:30 - 12:45 C2. Agriculture Robotics 2

Session Chair: Avital Bechar

12:45 - 12:57 EU funding opportunities for robotics research in 2014/15, Bogomir Juretzki, European Commission

12:57 - 13:10 The industrial robotics revolution, Erez Dotan, I-Scan

13:10 - 13:22 Replacing low-wage labor in China with high-tech robots in Israel, David Yattav, Payton Group

13:22 - 13:34 Multi-Manipulator Robotic Fruit Harvesting: Combinatorial Optimization and Performance Analysis, Moshe Mann, Boaz Zion, Izhak Shmulovich, Dror Rubinstein, Rafael Linden, Technion

13:34 - 13:46 One CEO, one employee and one robot: a case study, Avi Mizrahi, Omega

13:46 - 14:00 PLC Control System for Automatic Melons Collection, Moshe Karagoden, Volcani Center

14:00 - 14:12 One-of-a-kind fabrication – the biological behavior concept, Etan Lebel, SmartTCP

14:12 - 14:24 Embedded PVDF Shape Tracking for Control of a 2D Hyper Flexible Continuum Manipulator, Yeha Shapiro, Gabor Kos, Aton Wolf, Technion

14:24 - 14:36 End of Row Detection for Robotic Navigation in Greenhouses, Timea Ignat, Avi Cohen and Avital Bechar, Volcani Center

14:36 - 14:48 Don’t worry: The promised next technical revolution is temporarily delayed, Emanuel Diamant, VIDIA mant

14:48 - 15:00 Warm Engineering – An Empowering Synergy of Nature and Engineering Worlds, Ark Yavni, All-M Applied Intelligent Machines

15:00 - 15:12 BotSpeak: A Universal Programming Language for Robotics

15:12 - 15:24 Education, Ralf Yagudin, Chris Rogers, Ethan Danahy, Ben Shapiro, Don Atsalis, Tufs University CEEO

15:24 - 15:30 Lunch

15:30 - 15:45 Coffee Break

15:45 - 15:55 B3. Robotics as a Growth Engine

Session Chair: Sigal Berman

15:55 - 16:08 A2. Assistive Robotics

Session Chair: Jean-Pierre Merlet

16:08 - 16:21 Enhancing Wheelchair Maneuverability by Dynamics Mimicking, Uri Ben Haran, Avi Wass, Jury Surkov, Gideon Avigad, ORT Braude College

16:21 - 16:33 Learning Motion Control for Guiding a Robot using Sustures, Sada Bodrozla, Aleksander Jevtit, Bruno Lena, Vera Helena, Humboldt-Universität zu Berlin

16:33 - 16:46 Robots associated learning, Oded Rechertz, ORT Braude College


Session Chair: Dorit Assaf

16:58 - 17:11 Spatially Unconstrained Natural Interface for Controlling a Mobile Robot, Guillaume Dossy, Aleksander Jevtit, Sada Bodrozla, Yael Eden, Ben-Gurion University

17:11 - 17:23 Industrial Robots in Educational Projects, David Khononov, Shlomo Chetaru, Technion

17:23 - 17:35 Pedagogical Aspects of Creating Robots for Competitions, Emma Matayev, Vera Golub, Chel-Shem High School

17:35 - 17:45 C3. Multi Robots

Session Chair: Arik Yavnai

17:45 - 17:58 Embedded PVDF Shape Tracking for Control of a 2D Hyper Flexible Continuum Manipulator, Yeha Shapiro, Gabor Kos, Aton Wolf, Technion


18:11 - 18:23 A3. Human-Machine Interface

Session Chair: Sigal Berman

18:23 - 18:36 Learning Motion Control for Guiding a Robot using Sustures, Sada Bodrozla, Aleksander Jevtit, Bruno Lena, Vera Helena, Humboldt-Universität zu Berlin

18:36 - 18:49 Assimilation of High Level Robotics Studies in Junior High School, Eli Kolberg, Bar-Ilan University

18:49 - 19:01 Educational robotics as a global effort, Darryl Williams, I-ASSIST, University of Sydney

19:01 - 21:00 Poster Session