

איגוד ישראלי לבקרה אוטומטית - איב"א

ISRAEL ASSOCIATION for AUTOMATIC CONTROL

iaac.technion.ac.il

National Member Organization of:



הזמנה ליום עיון בנושא:

Navigation Systems and Applications

שייערך במלון "דניאל", הרצליה

יום ב', 27 לינואר, 2020

The Israel Navigation Systems and Applications Workshop and Exhibition is a biennial event organized and sponsored by the Israel Association for Automatic Control (IAAC) to serve the wide audience of people in Israel interested in the navigation science and art. The one-day workshop is dedicated to technical talks that range from fundamental research, to applications, to field test results. The exhibition is a unique opportunity to bring together in one location the different industries and representatives offering navigation related hardware.

The Itzhack Bar Itzhack Invited Speaker will be Prof. Dorota A. Grejner-Brzezinska, from the Ohio State University. Among multiple other achievements, Prof. Grejner-Brzezinska is an ION and RIN fellow, and past president of the ION for the period 2015-2017. During the workshop, we will hear talks on some of the hottest topics in navigation, including visual based navigation, GPS/GNSS receivers, and on new advances in sensor fabrication. Overall, the workshop offers a balanced and heterogeneous program with a nice mix of academic and industry speakers bringing us both theoretical and down-to-earth updates. As in previous editions, the event includes an exhibit in which the participants will have the chance to get to know the latest navigation products presented by manufacturers and their local agents.

Besides the technical objectives, the Workshop and Exhibition will provide a great opportunity for networking among all the participants that range from students pursuing an academic degree, researchers and users in Academy and Industry, and policy makers in this highly dynamic field.

We are looking forward to a very successful event.

Workshop organizers: Dr. Héctor Rotstein, Rafael and Dr. Vadim Indelman, Technion.

List of exhibitors:

Arazim, Hypertech, Infinidome+Focus-Telecom, Inteli-cs, Emcore+Degel. US., Northrop Grumman LITEF, Cielo Inertial Solutions, Honeywell, AccuBeat, Novatel (WaldyTech), IAI Tamam, Physical Logic, IXBlue, Condor Pacific, Astronautics/Kearfopp, A.O.Ezra Elect., Karil-Spirent, Axis-GPS, Zickel Eng.

Navigation Systems and Applications

January 27, 2020

Program

- 8:30 Registration and visit to the Exhibition
- 9:00 Opening *Moshe Idan, Technion/IAAC
Héctor Rotstein, Rafael*
- 9:15 **Session 1**
- 9:15 Itzhack Bar Itzhack Invited Talk: Automated and Autonomous Vehicles: Unsettled Technologies, Validation and Deployment Challenges *Prof. Dorota A. Grejner-Brzezinska,
Ohio State University*
- 10:15 Indoor Positioning for a Small Autonomous Car *John Noonan and Ehud Rivlin, Technion. Hector Rotstein, Rafael*
- 10:35 Data Association Aware Semantic Mapping and Localization via a Viewpoint Dependent Classifier Model *Vladimir Tchuiev, Yuri Feldman and Vadim Indelman, Technion*
- 10:55 *Coffee break and visit to the Exhibition*
- 11:40 **Session 2**
- 11:40 Smartphone based Pedestrian Dead Reckoning using Neural Networks *Itzik Klein, Huawei*
- 12:00 Behind The Scenes of The Tesla Spoofing Experiment and Important Lessons for Autonomous Systems Utilizing GNSS *Yoav Zangvil, Regulus*
- 12:20 Algorithm for Coarse Alignment On the Move in Denied GPS Environment *Leonid Shimelevich and Sharon Eilon, TAMAM*
- 12:40 Lessons learned from systematic development of Kalman filter-based SLAM *Zeev Berman, Berman Consultants Ltd*
- 13:00 *Lunch break and visit to the Exhibition*
- 15:00 **Session 3**
- 15:00 GPS turn by turn indoor navigation *Eli Ariel, Galileo Satellite Navigation Ltd*
- 15:20 High Performance MEMS Gyroscopes for Navigation Applications *Stefan Rombach, Northrop Grumman LITEF GmbH*
- 15:40 *Coffee break and visit to the Exhibition*
- 16:20 **Session 4**
- 16:20 An Embedded Estimator for the Auto-Diagnosis of a Motion Simulator *Bernard Vau, IXBLUE*
- 16:40 Civil and Military Airborne Navigation Trends: Civil Airspace, M-code and Alternate Navigation Technologies *Nik Hartney, Director Product Marketing, Honeywell*
- 17:00 **End**

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שייערך במלון "דניאל", הרצליה

יום ב', 27 לינואר, 2020

טופס הרשמה :

שם: _____

כתובת: _____

דוא"ל: _____

מקום עבודה: _____

טלפון: _____ פקס: _____

דמי השתתפות (כוללים ארוחת צהרים, כיבוד וזכות הורדת חומר ההרצאות):

רישום מוקדם עד 20.1.2020 ₪ 480

רישום החל מ- 21.1.2020 ₪ 530

סטודנט (בזמן מלא) ₪ 230

מצורפת המחאה ע"ס _____ ₪

לחיוב תקציב מוסדי שמספרו _____

רישום במקום (באמצעות המחאה או מזומן בלבד)

תאריך _____ חתימה _____

את הטופס יש לשלוח לכתובת:

מירה ארן, מזכירת איב"א

הפקולטה להנדסת חשמל

ק. הטכניון, חיפה, 32000

או לפקס: 04-8295745 (לידי מירה)

או למייל: mira.aran.iaac@gmail.com

לידיעתך, קו 29, מתחנת הרכבת בהרצליה למלון דניאל, יוצא כל 10 דקות (זמן נסיעה כ- 15 דקות)

תודתנו נתונה למפעלים ולמוסדות

הבאים אשר תמיכתם באיב"א

מאפשרת לקיים ימי עיון מסוג זה:

אלביט מערכות – יבשה ותקשוב בע"מ

קריה למחקר גרעיני – נגב

רפאל – מערכות לחימה מתקדמות בע"מ

Workshop and Exhibition:

Navigation Systems and Applications

That will take place on the "Daniel" Hotel, Hertzliya

On January 27, 2020

Registration Form:

Name: _____
Address: _____
E-mail: _____
Working Place: _____
Phone: _____ Fax: _____

Registration Rate:

Early registration up to 20.01.2020: 480 Israeli Shekel
After 20.01.2020: 530 Israeli Shekel
Full-time Student: 230 Israeli Shekel

Method of Payment:

- Check enclosed. Please mail registration form with payment to:
Mira Aran, IAAC Secretary
Department of Electrical Engineering
Technion City, Haifa 32000, Israel.
Make checks payable to: IAAC – Israel Association of Automatic Control.
- Charge to the institutional account number: _____
- On-site registration. Only payments in cash or check will be accepted.

Date: _____

Signature: _____

Registration Forms may also be sent by e-mail to mira.aran.iaac@gmail.com or by fax to +972 4 829 5745 (For Mira).

For your convenience, Line 29 from Hertzliya Train Station to the Daniel Hotel runs once every 10 minutes.
Travel time is approximately 15 minutes.

The following companies provide support to the
IAAC activities including this Workshop:

ELBIT Systems – Aerospace and Defense Company
NEGEV Nuclear Research Center
RAFAEL Advanced Defense Systems