



הכנס השנתי של:

חיישנים כימיים למכשירים לבישים

The 2nd Annual Conference on:

Chemical Sensors for Wearable Devices

5-6 February 2020

Water Research Institute | Technion – Israel Institute of Technology | Haifa, Israel

הטכניון – מכון טכנולוגי לישראל | חיפה, ישראל

Scientific Program

Wednesday, 5 February 2020

08:00 – 09:00 Registration, Morning Reception

09:00 – 09:20 Greetings and Welcome Ceremony
Hossam Haick

9:20 – 10:50	Session 1 – Opening Plenary Chair – Hossam Haick
09:20 – 10:05	Howard E. Katz: <i>"Material and Circuit Stabilization for Polymer Field-effect Transistor Vapor Sensing"</i>
10:05 – 10:50	Sihong Wang: <i>"Intrinsically stretchable polymer electronics for the next generation of wearable technology"</i>
10:50 – 11:15	Coffee Break and Exhibition Visit
11:15 – 13:20	Session 2 – Chemical Sensors for Wearable Devices – Part I Chair – Perena Gouma
11:15 – 11:40	Shady Farah: <i>"Engineering bioactive functional polymers and delivery systems for enhancing the function of medical devices and wearable sensors"</i>
11:40 – 12:05	Yossi Rosenwaks: <i>"Selective Molecular Sensing using CMOS Compatible Nanowire Transistors"</i>
12:05 – 12:30	Dima Shlenkevitch: <i>"The GMOS - Towards a Gas Sensor for Smart Phones"</i>
12:30 – 12:55	Rotem Vishinkin: <i>"Tuberculosis detection via a wearable device based on nano-sensors"</i>
12:55 – 14:20	Lunch Break + Posters Visit
14:20 – 16:00	Session 3 – Chemical Sensors for Wearable Devices – Part II Chair – Ivana M. Steinberg
14:20 – 14:45	Ronald Österbacka: <i>"Functional Materials at Biological Interfaces"</i>
14:45 – 15:10	J. Daniel Prades: <i>"Micro Power Platforms for Conductometric Chemical Sensors"</i>
15:10 – 15:35	Gil Shalev: <i>"Beyond The Debye Screening Length In Field-Effect Biosensors"</i>
15:35 – 16:00	Ning Tang: <i>"Ultra Aligned Nanowires-based Wearable Sensors for Real-time Chemical Sensing"</i>
16:00 – 16:30	Coffee Break and Exhibition & Posters Visit
16:30 – 17:30	Session 4 – Flash talk (15-minute presentations) Chairs – H. Haick, Y. Broza
16:30 – 16:45	Sinwook Park: <i>"Ionic Concentration-Polarization based Biomolecule Preconcentration and Sensing "</i>
16:45 – 17:00	Natalia Barger: <i>"Synthetic Metabolic Computation in a Bioluminescence-Sensing System"</i>
17:00 – 17:15	Rajendra Prasad Shukla: <i>" Electrochemical Sensor for the Real-Time Detection of Antipsychotic"</i>
17:15 – 17:30	Tali Dotan: <i>" Microelectrodes Patterning by Supersonic Cluster Beam Deposition (SCBD) and FS Laser Processing "</i>
17:30	Get Together Cocktail + Posters

Thursday, 6 February 2020

08:30 – 09:00 **Registration, Morning Reception**

09:00 – 10:40 **Session 5 – Plenary**
Chair – **Matthew D. Steinberg**

09:00 – 09:50 **Joseph Wang:** *"Wearable Electrochemical Sensors: Towards Labs on the Skin and on the Mouth"*

09:50 – 10:40 **Shizuo Tokito:** *"Flexible Printed Biosensors for Healthcare and Medical Applications"*

10:40 – 11:10 **Coffee Break and Exhibition Visit**

11:10 – 12:50 **Session 6 – Integrated Accessories for Wearable Devices**
Chair – **Gidi Shani**

11:10 – 11:35 **Perena Gouma:** *"Wearable Metabolic Rate Monitors"*

11:35 – 12:00 **Carol Crean:** *"Fibre-based chemical sensors for wearable applications"*

12:00 – 12:25 **Neus Sabaté:** *"Paper batteries as self-powered sensors for single use wearable patches"*

12:25 – 12:50 **Muhamad Khatib:** *"A Multifunctional Electronic Skin Empowered with Damage Mapping and Local Acceleration of Self-Healing"*

12:50 – 14:10 **Lunch Break + Posters Visit**

14:10 – 15:55 **Session 7 – Accessories and Applications of Wearable Devices**
Chair – **Yoav Broza**

14:10 – 14:40 **Ivana M. & Matthew D. Steinberg:** *"Bridging the Gap Between (Bio)chemical Sensors and the Digital World: Towards a Wireless RFID/NFC Wearable Sensing Platform"*

14:40 – 15:05 **Pavel Goldstein:** *"Painometry: Wearable System for Automated, Objective, and Continuous Quantification of Pain"*

15:05 – 15:30 **Yosi Shacham:** *"Plant-wearable" Electrochemical and Electrical Impedance Spectroscopy sensors"*

15:30 – 15:55 **Gidi Shani:** *"Sniffphone - Smartphone-aided Medical Diagnosis from Exhaled Breath "*

15:55 – 16:20 **Coffee and Poster Visit**

16:20 – 17:20 **Session 8 – Microfluidics based biosensors**
Chair – **Hossam Haick**

16:20 – 16:50 **Moran Bercovici:** *"Diffusion-Based Separation Using Bidirectional Electroosmotic Flow"*

16:50 – 17:20 **Gilad Yossifon:** *"Micromotor-Based Biosensing via Label-Free and Selective Transport of Functionalized Beads"*

17:20 **Closing Remarks and Poster Awards**
Hossam Haick

