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Israel Aerospace
Industries



Technion – Israel Institute of Technology
Faculty of Mechanical Engineering
Internal Combustion Engines Lab



Directorate of Defense Research
& Development (DDR&D)
Aeronautical Division



AERONAUTICS™



LOWENTALHYBRID

11th Conference on Propulsion Technologies for Unmanned Aerial Vehicles

Conference Program

Thursday, January 30, 2025

Shirley and Manny Ravet Auditorium, D. Dan and Betty Kahn Building
Faculty of Mechanical Engineering, Technion, Haifa

8:30 – 9:00	Welcome and Registration
Opening session	Chairman: Leonid Tartakovsky, Technion
9:00 – 9:30	Welcome: Alon Wolf , Dean, Faculty of Mechanical Engineering, Technion Yuri Simanovsky , Head, Propulsion Branch, Directorate of Defense Research & Development, MAFAT Emanuel Liban , President, Association of Engineers, Architects and Graduates in Technological Sciences in Israel
9:30 – 10:00	Keynote lecture: Propulsion During War - User Perspective Yosef Pikel , IDF
Morning session	Chairman: Yitzhak (Itche) Hochmann, Edmatech
10:00 – 10:30	Innovative internal combustion engine for future mission platforms Osnat Fried , Israel Aerospace Industries
10:30 – 11:00	Hybrid propulsion for tactical UAVs Itay Lowental , Lowental Hybrid
11:00 – 11:30	Ignition Systems EMI Shielding - Review and Practical Methods Noam Kakon , Elbit Systems LTD - UAS – UEP
11:30 – 11:50	Coffee break
Noon session	Chairman: Shaul Eliahou-Niv, Israel Aerospace Industries
11:50 – 12:10	The H₂ paradigm – Theoretical versus Practical Energy density Jacob Feldman , Israel Aerospace Industries

12:10 – 12:30	UAS Propulsion System Fuel Mapping and Fuel Injector Replacement <u>Omer Netzerel</u> , Aeronautics
12:30 – 12:50	Trends and challenges in technology development of internal combustion engines <u>Guy Ben-Haim</u> , DOR Motors
12:50 – 13:05	Best Student Poster Award Ceremony
13:05 – 14:20	Lunch
Afternoon session	Chairman: <u>Andy Thawko</u> , Technion
14:20 – 14:40	Hydrogen On Demand - On-Board hydrogen production for internal combustion engines and gas turbines Dmitry Pashchenko , GTIIT - Guangdong Technion - Israel Institute of Technology, China
14:40 – 15:00	Waste-heat driven sorption compressors for UAV cooling purposes <u>Nir Tzabar</u> , Ariel University
15:00 – 15:20	Numerical simulation of flame – wall interaction <u>Shimon Pisnoy</u>, <u>Steven Frankel</u> and <u>Leonid Tartakovsky</u> , Technion
15:20 – 15:40	Coffee break
Evening session	Chairman: <u>Nir Geva</u> , Elbit Systems
15:40 – 16:00	The role of cool flames in combustion engines <u>Andy Thawko</u> , Technion
16:00 – 16:20	Aluminum-Water Reaction as a Method for Hydrogen Generation <u>Gal Shaviner</u> and <u>Yinon Yavor</u> , AFEKA College
Closing remarks 16:20 – 16:25	<u>Leonid Tartakovsky</u> , Chairman Organizing Committee

* The Program is subject to changes

Conference language – English

An exhibition will take place in the Conference lobby, where the leading industries will demonstrate their latest developments in the field of UAV propulsion.

Participation in the Conference is free of charge, however early registration is required through the link: <https://forms.gle/ZcWbWZRLEt9QnhN5A>

Conference Chairman:

Prof. Leonid Tartakovsky, Faculty of Mechanical Engineering, Technion – Israel Institute of Technology. Email address: tartak@technion.ac.il

Conference Secretary:

Ms. Shimrit Wagner-Lior, shimrit.w@me.technion.ac.il Phone: +972-77-8871668, Fax: +972-4-8295710

Best Student Poster Selection Committee:

Emanuel Liban, Israel Society of Mechanical Engineers – *Chairman*

Andy Thawko, Technion

Lena Jilin, IDF

Jacob Feldman, Israel Aerospace Industries

Yitzhak (Itche) Hochmann, Edmatech

Nir Geva, Elbit Systems

Itay Lowental, Lowental Hybrid

Eran Sher, Technion