## THE $12^{TH}$ ISRAELI SYMPOSIUM ON JET ENGINES AND GAS TURBINES

Thursday, November 7 2013 (9:00-17:00),
Butler Auditorium, Forchheimer Building, Neaman Institute (Building
#260), Technion, Haifa







**Propulsion Branch IMOD** 

Turbo and Jet Engine Laboratory

Propulsion Branch IAF

## THE TURBINES THE 12TH ISRAELI SYMPOSIUM ON JET ENGINES AND GAS TURBINES

Start	End	PROGRAM	
07:45	09:00	הרשמה (Registration)	Language
		Opening: Professor Yeshayahou Levy, Chairman, Head, Turbo and Jet	English
		Engine Laboratory, Faculty of Aerospace Engineering, Technion.	
		Professor Oded Shemueli, Executive VP for Research of the Technion	English
		Professor Yaakov Oshman , Dean, Faculty of Aerospace Engineering,	English
		Technion.	
		Major Uri Zvikel, Head, Propulsion Systems Branch, Aeronautical	
		Division, MOD/MFAT	
		Lt.Col. Shlomi Konforty, Head of Propulsion Branch, IAF	
09:20	13:00	מושב ראשון (First Session)	
		RECENT ADVANCEMENT IN ENGINE DESIGN	
		Session Chairman: Emanuel Liban, EDMATECH LTd. & Chairman of Israel	
		Society of Mechanical and Aerospace Engineers and Major Uri Zvikel,	
		Head, Propulsion Systems Branch, Aeronautical Division, MOD/MFAT	
		In memory of late Ing. Udi Gilai לזכר מהנדס (אודי) יהודה גילאי ז"ל	
A1		Prof. Alan Epstein, VP Technology and Environment, Pratt & Whitney,	English
		USA, " Aero-propulsion for Commercial Aviation in the 21st Century and	
		Research Directions Needed"	
A2		Mike Epstein, Military Propulsion Engineering. GE Aviation, Aviation	English
		Propulsion Technologies in the 21st Century	
А3		Prof. Srinath Ekkad, Mech. Eng. Dep., Virginia Tech, USA, "Advanced Film	English
		Cooling and Combustor Cooling Concepts for Gas Turbines"	
11:20	11:40	(Break and refreshments)	
A4		Prof. Dr. Guillermo Paniagua, Von Karman Institute, "Recent	English
		Development High Pressure Unsteady Aerodynamic Turbine Design"	
A5		Prof. Arvind Rao, Technical University - Delft, The Netherlands, "AHEAD	English
		Advanced Hybrid Engine Development"	
A6		Andrzej Cwik, WSK "PZL-Rzeszow" S.A., Poland,	English
		"Turbojet engine compressor surge margin estimation: methods &	
		comparison to turbojet engine experimental testing"	
13:00	14:30	ארוחת צהריים וסיור במעבדה למנועי סילון - (Lunch and laboratory visit)	

	ני סילון	למנוע	ועבדה	ארוחת צהריים וסיור במ (Lunch and laboratory vi	sit) 13	3:00-14	1:30	
	14:30 - 16:50 מושב שני R&D - SYSTEMS and COMPONENTS			14:30 - 16:50 מושב שלישי STRUCTURE and SYSTEMS				
	Session Chairman: AMIRAM LEITNER Rafael and Yitzhak Hochmann, EDMATECH.			Session Chairman: AVIAD BRANDSTEIN, Bedek Aviation Group, IAI and Maj. Avi Yosfan, Head of the Engine Engineering Group, Propulsion Branch, IAF.				
B1	Dr. Beni Cukurel, Faculty Aerospace Eng., Technion, "Design of a Closed loop Continuous Turbine Test Rig"	E	C1	Albert Levy, Bet Shemesh Engine, Israel, "Damage at the Gas Turbine's First Compressor Stage due to Sand Ingestion"	Н			
B2	Dr. Rammy Shellef, Ettem Engineering, Israel "Dynamic Sealing in gas Turbines"	E	C2	Shalev Aizik, Preliminary Engine Design, Engines Division Engineering, IAI, Israel, "On the Effect of the By-Pass Ratio on the Dynamic Response of a Turbo Fan Engine"	Н			
В3	Prof. Levy Yeshayahou, Head Turbo and Jet Engine Laboratory, TECHNION, "Using Chemical Kinetics as a Tool For Improved Efficiency and Low Emission Jet Engine Combustor's Design"	E	C3	Ohad Miler and Savely Khosid, Rafael, Israel, "Optimization of Aero-Mechanical Turbo Machinery Design"	Н		16:50 - 15:50 מושב רביעי MAINTANANCE Session Chairman: MOSHE LEVY, IAF	
			וד קל	הפסקה וכיבוBreak and refreshments 15:30-15:50	)			
D1	H. Rosenson, A. Fleisher, S. Essel and Alex Katz, Israel Institute of Metals, Foundry Laboratory, Technion R&D Foundation, "High Entropy Alloys"	Н	E1	Emanuel Liban, EDMATECH, Isreal: "F-4 (Phantom) A/C modernization by engines' conversion"	Н	F1	Dave Ogden, Southwest Research Institute (SRI), "Condition Based Maintenance work"	E
D2	Raz Faibish, Technion, Student project: "SE'ARA" (Storm) – Conceptual UAV Jet-engine design (Students' project, under the supervision of Dr. Boris Glezer).	Н	E2	Cpt. Ivgeni Glishensky, IAF, Israel, "Minimizing Flutter in the T700 Turbo shaft Engine"	Н	F2	Steve Deane, ZOK International Group, UK, "Shaping the Future of Gas Turbine Washing"	E
D3	Eli Yakirevich, Bet Shemesh Engine, Israel, "Graphic - Analytical Solution for Contradicting Engine Specification Requirement"	Н	E3	Dr. Doron Gur, Head Metallurgic Laboratory, Engine Division, IAI, Israel, "Investigation of Jet Engines Failure"	Н	F3	Jarrod Schell, Moog/Mid-America Aviation - "ADVANCED SURFACE REPAIR CAPABILITIES"	E