

AMDay

Technion, 27 March 2019

Callner Family Auditorium
2nd Floor Silver Building,
Faculty of Biomedical
Engineering



8:00-8:30 Gathering

8:30-8:40 Opening Session
Session Chair: **Gershon Elber**

8:40-9:20 Session 1: Bio/Medical Engineering
Session chair: **Anath Fisher**

Lecture	AFFILIATION	SPEAKER NAME	TITLE
1	Biomedical Engineering	Prof. Shulamit Levenberg	Auricular Reconstruction for Microtia using 3D Printed Autologous Engineered Cartilage Tissue
			Three-dimensional bioprinting for perfusable vascularized tissues
			Indirect 3D printing of biodegradable scaffolds for spinal cord injury
2	Biomedical Engineering	Dr. Eliram Nof	3D printing for in vitro airway assays
3	Mechanical Engineering	Daniel Widerker	Additive bio-functionalized microscale printing
4	Mechanical Engineering	Yair Herbst	Scan-Driven Autonomous Personalization, Customization and 3D Printing Pipeline of Prosthetic Hands

9:20-10:10 Session 2: Design
Session Chair: **Shulamit Levenberg**

Lecture	AFFILIATION	SPEAKER NAME	TITLE
1	DesignTech lab	Prof Ezri Tarazi	Freeform clay deposition in the service of marine biology
			The influence of Modulated Extrusion on design aesthetic and mechanical properties in 3D printing
2	Computer Science	Prof. Gershon Elber	Hierarchical, Random and Bifurcation Tiling with Heterogeneity in Micro-structures Construction via Functional Composition
			Volumetric Representations in Additive Manufacturing
3	Israel Institute of Metals	Dr. Vladimir Popov	Additive manufacturing activities at Israel Institute of Metals (Technion R&D Foundation)
4	Mechanical Engineering	Prof. Anath Fischer	Design, modeling and topology optimization for AM and 3D printing
5	Faculty of Education in Science and Technology	Prof. Igor Verner	Fostering Applied Mathematical Skills through Learning Practice in Digital Design and 3D Printing

10:10-10:40 Coffee break

10:40-11:20 AM Center - discussion
Session Chair: **Gershon Elber**

11:20-12:10 Session 3: Aero/Mechanical/Civil Engineering
Session Chair: **Haim Rosenson**

Lecture	AFFILIATION	SPEAKER NAME	TITLE
1	Aerospace Engineering	Prof. Daniella E. Raveh	Printed Aircraft
2	Aerospace Engineering	Prof. Beni Cukurel	Printing micro gas turbines for propulsion and power generation
3	Civil and Environmental Engineering	Prof. Oded Amir	Topology Optimization and Additive Manufacturing – our recent progress on methods and applications
4	Civil and Environmental Engineering	Prof. Fadi Kizel	Using 3D printing technology to create real scenes with reliable ground truth for intelligent study of spectral imaging data

12:10-12:50 Session 4: Material/Chemical Engineering
Session Chair: **Ezri Tarazi**

Lecture	AFFILIATION	SPEAKER NAME	TITLE
1	Materials Science and Engineering	Prof. Wayne D. Kaplan	Functionally Graded Composites by 3-D Printing
2	Materials Science and Engineering	Prof. Yehonadav Bekenstein	Digitally Programmable Polarization Anisotropy via 3D printing of Nanowire-Block Copolymer Composites
3	Materials Science and Engineering	Prof. Noy Cohen	Programming the non-linear response of periodic elastic lattice structures
4	Chemical Engineering	Prof. Ofer Manor	Signatures of Van Der Waals and Electrostatic Forces in the Deposition of Nanoparticle Assemblies
5	Mechanical Engineering	Prof. Doron Shilo	Additive manufacturing of shape memory alloys