

RESUME

Personal details

Full name: **Eilam Yalon**

Date of birth: January 9 1980

Marital status: Married + 2

Email: eilamy@technion.ac.il

ACADEMIC DEGREES

2009 – 2015: PhD, Department of Electrical Engineering, Technion – Israel Institution of Technology. Advisor: Prof. Dan Ritter.

Research topic: “Novel Bipolar Transistor Structures and their Applications”.

2004 – 2009: BSc in materials engineering and physics (double major), Department of Materials Engineering, Technion – Israel Institution of Technology. Graduated Cum Laude.

ACADEMIC APPOINTMENTS

2018-present: Assistant Professor, Electrical Engineering, Technion – Israel Institute of Technology.

2015-2018: Post-doctoral researcher, Electrical Engineering, Stanford University.

Studied novel devices based on 2-dimensional semiconductors, phase change, resistive switching materials and their combinations. Focused on energy dissipation and self-heating effects in nanoscale devices.

PROFESSIONAL EXPERIENCE

2007 – 2009: Intel, quality and reliability (Q&R) group of the LAN access division (LAD). Planned schedule and materials budget for Si integrated circuit product qualification. Managed, executed and analyzed quality and reliability tests according to microelectronics industry standards. Conducted an academic project in collaboration with the Technion – IIT: “Time, temperature and voltage dependence of speed degradation in CMOS transistors”.

RESEARCH INTERESTS

Nano-electronics, semiconductor device physics, energy-efficient electronics, power and heat dissipation in devices, two-dimensional (2D) materials and their application in electronic devices, emerging memory technologies: resistive memory (RRAM) and phase-change materials (PCM).

TEACHING EXPERIENCE

2013 – 2014 and 2018 – present: Lecturer, "Fundamental physics of semiconductor devices" (046225 combined undergraduate + graduate), Department of Electrical Engineering, Technion – Israel Institute of Technology.

[\(link to video lectures in Hebrew\)](#)

2010 – 2012: Teaching assistant, "Fundamental physics of semiconductor devices" (046225), Department of Electrical Engineering, Technion – IIT.

Outstanding Teaching Assistant Award 2010-2012.

2009 – 2012: Teaching assistant, "Basics of semiconductor devices" (044125/7 undergraduate), Department of Electrical Engineering, Technion – IIT.

[\(link to video tutorials in Hebrew\)](#), available at Technion)

Outstanding Teaching Assistant Award 2010-2012.

DEPARTMENTAL ACTIVITIES

2018 – Secretary of Department council

PUBLIC PROFESSIONAL ACTIVITIES

Reviewer for the following journals: IEEE Electron Device Letters, IEEE Transactions on Electron Device, IEEE Transactions on Nanotechnology, IEEE Journal of Electron Device Society, IEEE Transactions on Circuits and Systems, Applied Physics Letters, Journal of Applied Physics, IOP Nanotechnology, ECS Journal of Solid State Science and Technology, ECS Solid State Letters, Microelectronics Journal

MEMBERSHIP IN PROFESSIONAL SOCIETIES

IEEE (member)

MRS (member)

FELLOWSHIPS, AWARDS AND HONORS

- Northern California Career development Chair 2018-2019.
- Andrew and Erna Finci Viterbi Fellowship 2016-17 and 2017-18.
- Ilan Ramon-Fulbright Fellowship 2014-15.
- Muriel and David Jacknow Prize for consistent excelling in teaching and for contribution to advancing academic education of undergraduate students 2012-2013.
- Russell Berrie Scholarship for Outstanding students in Nanoscience and Nanotechnology 2012-14 (3 times).
- Clore Israel Foundation Scholarship 2013
- IEEE non-volatile memory technology symposium (NVMTS) 2012 best poster award
- Technion award for excellence in teaching 2010-2012 (6 times).