

Assaf Levanon, Ph.D.

Mazkeret Batya 77666, Israel
054-6262348 | levanonster@gmail.com | 3Doptix.com



Professional Summary

Distinguished Laser Scientist and Optical Engineer with over 15 years of pioneering contributions in high-power laser systems, ultrafast photonics, and Nonlinear including quantum-optics-based experimental platforms. Expertise in the design, integration, and commercialization of advanced optical systems for quantum physics realizations and photonic technologies. Demonstrated leadership in managing multidisciplinary R&D initiatives, fostering international collaborations, and driving innovation from concept to market deployment.

Professional Experience

Head of Laser Labs & Systems | Senior Research Scientist

Tel Aviv University, Department of Physics 2018–Present

- Lead R&D in high-intensity laser systems and ultrafast optical technologies for quantum and photonic applications.
- Manage laboratory operations, mentor doctoral researchers, and establish collaborations with elite institutions including the U.S. Navy, XFL Accelerator Program, and EU consortia.

Co_Founder & VP R&D

3Doptix Inc. 2017–Present

- Invented and patented the 3Doptix 2.0 optomechanical platform for modular optical systems.
- Directed full-cycle product development from conceptual design to commercial deployment for research and industrial sectors.

Consultant

Ramot TAU, IL Photonics, Venteon, Light Conversion, Amplitude Lasers 2015–2024

- Advised on high-end laser system design, OPO/OPA OPCPA technologies, and nonlinear optical applications.
- Represented leading global laser manufacturers after intensive training at original facilities.
- Supported R&D and commercialization efforts across Europe and the United States.

CIO

Riote Automation Inc. 2018–2019

- Led development of LIDAR-based DSP detection systems for autonomous applications.
- Managed technical teams and integrated advanced optical sensing solutions.

Core Competencies

- High-Power Amplifier & Ultrafast Oscillator Laser Systems
- Nonlinear Optics Non linear experts
- Quantum Optics Setup Design
- Optical Design Integration Engineer (Zemax, 3Doptix)
- Terahertz millimeter waves & Mid-IR Imaging
- Project Management

Education

Ph.D. Electrical and Computer Engineering
Ben-Gurion University (BGU) | 2014

M.Sc. Electrical and Computer Engineering
Ben-Gurion University (BGU) | 2010

B.Sc. Nuclear & Electrical Engineering
Ben-Gurion University (BGU) | 2002

Certifications

- Zemax Optical Design (2021–2022)
- XFL Accelerator Program, DESY Hamburg (2021–2022)
- High-Energy Laser Systems, Amplitude Lasers (2021)
- Petawatt Laser Systems, UT Austin (2018–2019)
- OPO/OPA OPCPA Amplifier Systems Specialist (2015–2019)

Patents & Publications

5 Patents in Mid-IR imaging, nano-satellite FTIR, adiabatic illumination, and optomechanics.

4 First-Author and **60+ Co-Authored** papers in high-impact journals (*Nature Optics*, *Science*, *Optics Express*).

Languages

Hebrew (Native)
English (Fluent, Academic & Technical)

Military Service

Combat Soldier & Sergeant, Shimshon Unit, IDF (1993–1996)
Active Reserve Duty, Golani Brigade (2024–2025)