

Yaron Ben-Shmuel

Habarkan 14, Nahariya, Israel
+972 0547 643361 • yaron151176@gmail.com

EXECUTIVE SUMMARY

- Graduate from Technion with PhD degree at the Mechanical Engineering Faculty.
- Results-oriented person with proven experience on both: theoretical and practical methods.
- Mathematical problem solving skills, scientific programming experience in MATLAB and C, numerical analysis and simulations, analytical thinking, proven abilities in writing and publishing articles, good presentation and public-speaking skills.

PROFESSIONAL EXPERIENCE

Senior Research Associate, RAFAEL, Haifa

(January 2002 – Present)

Achievements and responsibilities:

- Directing a substantial R&D investment and managing R&D processes on state-of-the-art technologies such as: multidisciplinary simulations (aeroelasticity, line of sight stabilization, flight dynamics), material characterization and advanced measuring techniques (DIC, FBG).
- Planning and executing a training program for engineers.
- Pazy foundation (Keren Pazy)
- Simulation team manager for 4 years in which I have built and led, from scratch, a team specialize in rigid and non-rigid body dynamics simulations. This includes specification of CAE tools (Adams, Abaqus), trainings, methodologies and research.
- Head of mechanical design team for 5 years. The team specialize in small scale tactical missiles.
- Mechanical design engineer for 5 years where I actively engage in all phases of product development including conceptualization, creating models, developing designs, creating prototypes, performing validation and verification test and producing the new product.
- Develop additional tooling techniques and concepts to increase production effectiveness.
- Develop a new concept of pyrotechnic mechanism which ease the assembly procedure significantly.

EDUCATION

Technion – Israel Institute of Technology

(2012–2017)

Doctor of Philosophy, Mechanical engineering

Thesis: Modeling plasticity by non-continuous deformation

Supervisor: Prof. Eli Altus

Honors: *summa cum laude* (*hp* award)

Technion – Israel Institute of Technology

(2003–2007)

Master of science, Mechanical engineering

Thesis: Modeling and calculation of fluid flow and fractional efficiency of tangential flow cyclone

Supervisor: Prof. Michael Shapiro

Honors: *cum laude*

Technion – Israel Institute of Technology

(2003–2007)

Bachelor of science, Mechanical engineering

Final Project: Analysis of a Hydrodynamic Bearing with Laser Textured Surface

Supervisor: Dr. Yuri Kligerman

Honors: *summa cum laude*

LANGUAGES AND TECHNICAL SKILLS

- Hebrew: Native Speaker, English: Fluent
- Analytical skills: Analysis, Data Analysis, Field Research, Problem Solving
- Computer skills: Windows, MS office, MATLAB, Mathematica

PUBLICATIONS

- Ben-Shmuel, Y. and Altus E., 2017. Modeling plasticity by non-continuous deformation. *Computational Particle Mechanics*, 4(4), pp487-501.
- Shapiro, M & Ben-Shmuel, Yaron. (2012). Modeling Performance of a Tangential Flow Cyclone: Effects of Secondary Outlet Geometry and Boundary Conditions. *Particulate Science and Technology – PARTICULATE SCI TECHNOLOGY*. 30. 10.1080/02726351.2011.595249.