Yahav Morag

B.Sc. M.Sc. Mechanical Engineering

Ph.D. Electrical Engineering

Electromagnetic design & simulations,

Rafael Advanced Defense Systems

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Education

2014- 2018

Ph.D. research- Technion- Israel institute of technology, Department of Electrical Engineering-

"Optimization of Magnetic Sensing, Wireless Power Transfer and Magnetic Communication Systems Based on Magnetic Induction" (Prof. Yoash Levron)

2003-2007- Technion- Israel institute of technology

Msc.- Faculty of Mechanical engineering- Research path with Thesis.

Research field- Contact mechanics and Tribology (Prof. I. Etsion).

1997-2001: Technion- Israel institute of technology

B.Sc Faculty of Mechanical engineering, with major in mechanical design, -

Summa cum laude

1997: Technion- Israel institute of technology

Pre- university studies.

Professional experience

2001 – Toady: Rafael Advanced Defense Systems, Israel.

2012- Today: Electro mechanical design

2010- 2012: Project leader

2007-2011- Section manager- Mechanical R&D team

2006- 2007- Mechanical R&D engineer.

Publications (*As 1St author)*

Journal papers

1. Y. Morag, N. Tal, Y. Leviatan, and Y. Levron, "Channel Capacity of Magnetic Communication in a General Medium Incorporating Full-Wave Analysis and High-Frequency Effects," IEEE Transactions on Antennas and Propagation , Vol: 67 , Issue: 6 , June 2019.

2. Y. Morag, N. Tal, M. Nazarathy, and Y. Levron, "Thermodynamic Signal to Noise and Channel Capacity Limits of Magnetic Induction Sensors and Communication Systems," IEEE Sens. J., vol. 16, no. 6, March 2016.

3. Y. Morag and Y. Levron, "Output Power Limit in Energy Harvesting Systems", Instruments, 2019 - mdpi.com

4. Y. Morag and I. Etsion, "Resolving the contradiction of asperities plastic to elastic mode transition in current contact models of fractal rough surfaces," Wear, vol. 262, no. 5–6, pp. 624–629, 2007.

Conferences papers

1. Y. Morag, N. Tal, and Y. Levron, "Optimization of Channel Capacity in Magnetic Communication Systems Subjected to Total Power Constraint" *IEEE COMCAS*, no. November, , 2017.
2. Y. Morag, N. Tal, and Y. Levron, "The Effects of Radiation Resistance on the Signal to Noise Limits of Magnetic Sensors and Communication Systems," *IEEE COMCAS*, no. November, pp. 2–4, 2015.

3. Y. Morag and I. Etsion, "Resolving the contradiction of asperities plastic to elastic mode transition in current contact models of fractal rough surfaces," *ASME, STLE WTCIII*- World Tribology Congress & Exhibition, 2005.

4. Y. Morag, N. Tal, and Y. Levron, "Power Limits in Energy Harvesting and Wireless Power Transfer Systems Based on Magnetic Induction," *(Accepted to SPEEDAM 2016* - 23rd International Symposium on power electronics, electrical drives, automation and motion*).*

Military service (Israel defense forces)

1989-1995- Naval officer

Rank at the end of service- Lieutenant