# AMBASSADORS LECTURE SERIES



## MEET OUR AMBASSADORS



Oren Gal
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Hatter Department of Marine Technologies
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#### Field of Research:

Swarms and AI across scales; Autonomy and decision- making.

### **SHORT BIO**

I hold a B.Sc. in Aerospace Engineering, an M.Sc. in Mechanical Engineering, and a Ph.D. in Geo-information Engineering, all from the Technion – Israel Institute of Technology. Currently, I am an Assistant Professor leading the Swarm and AI (SAIL) Lab at the University of Haifa's Hatter Department of Marine Technologies. Before joining the University, I spent over two decades as the founder and CTO of Autonomy & Data Science R&D in the government sector. In this role, I collaborated with international research partners and led research groups. For the past five years, I have been engaged in joint research on swarms and machine learning algorithms with prestigious institutions like CSAIL & LIDS at MIT and UPenn.

My research focuses on harnessing the potential of swarms and artificial intelligence to benefit humanity. Swarms' adaptability and scalability make them ideal for tasks requiring distributed sensing, acting, and processing. This presents exciting possibilities for tackling complex, large-scale challenges facing our world. From nanorobots for cancer treatment to environmental monitoring and conservation in the ocean, disaster response and recovery, traffic management, and logistics, swarm intelligence offers humanity significant benefits. In my free time, I love to travel with my wife and running.

#### **FUNDRAISING NEEDS**

The Swarm and AI (SAIL) Lab is currently under establishment. In our cutting-edge research lab, we delve into the complex and rapidly evolving field of swarms and autonomy, leveraging the latest advancements in Artificial Intelligence (AI) to push the boundaries of autonomous systems across scales. Our vision is to make human life better, where adaptability and scalability of swarms can make the difference. SAIL will be focus on nanorobots for cancer treatment and environmental monitoring and conservation in the ocean using swarms. We strive to pioneer innovations that contribute significantly to the fields of autonomy and swarms, ultimately shaping the future of intelligent autonomous systems.

To fulfill this vision and goals, we need funds and resources for SAIL Lab equipment and research, that would show "proof of concept" to our adaptability and scalability AI algorithms, demonstrating tailor-made nanorobotics swarm's cancer treatment and ocean environmental monitoring and conservation using swarms and AI.