

SAMPL Technologies is the arm of SAMPL Lab at the Weizmann Institute of Science responsible for collaboration with the industry sector

OUR MISSION

Harness the innovative technologies developed at SAMPL lab, together with cutting edge AI and deep learning methods, to advance breakthrough innovations in next-generation technologies

Our focus is to address the challenges of signal-processing enabled technologies

The technologies we use in our modern world – computers, radios, video, cell phones, medical and defense systems – are all enabled by signal processing.

Over the coming decade, as countless additional tasks and functions are replaced by smart and automated systems and tools, complex new challenges in the signal processing and learning domain will need to be addressed. Next-generation systems will need to become faster, more efficient, less costly and of higher quality.

Our goal is to help make technologies more powerful and more accessible to everyone

We aim to make technologies faster, more powerful, more efficient and less costly – so that they can perform better and become more widely accessible. We strive to improve technologies that are still limited due to low resolution and signal-to-noise ratio problems – thus increasing their usability.

Efficient
Communications
Systems

Wireless
Ultrasound

High
Resolution
Radar

Compact
Portable
Devices

Fast &
Quantitative
MRI

Joint Radar &
Communications
Systems

OUR APPROACH

Facilitate the transition from theoretical research to advanced prototype systems - bringing science and industry closer together

Research Collaboration

We provide an infrastructure for close collaboration between our scientists together with engineers and industry professionals.

Industry Forum and Joint Projects

We host an industry forum with key opinion leaders from the communication, defense and homeland security companies in Israel, with the aim of providing a platform for exchange of ideas and identifying new challenges and new domains for collaboration.

From Theory to Prototypes

We specialize in transforming theoretical science into prototypes, using our state-of-the-art facilities and cutting age equipment including ultrasound machines, high speed waveform generators and phased array antennas. Our prototypes are presented worldwide at conferences and exhibitions such as ICASSP, RadarConf, and more.

Our major areas of research currently include:

- MIMO communication & radar systems
- Radar & sensors for health applications
- Super resolution optical imaging
- Dynamic metasurface antennas
- Low-bit quantization methods
- Machine learning for wireless communications
- Super resolution & efficient radar systems
- Innovative analog-to-digital converter design
- AI and machine learning for COVID19 detection & monitoring
- Joint radar-communication platforms
- Model-based machine learning
- Smart antennas design for ultrasound, radar & communication

Contact

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