




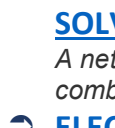

July Newsletter

 from the Technology Ventures Office at MIT LL

Latest Tech/Capabilities

 **Optical communications technologies decades in the making were transferred to NASA for its first two-way laser relay communications system.** [Learn more!](#)

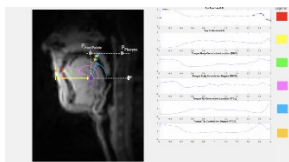
Latest in Issued Patents

-  [PORTABLE SPECTROMETER FOR CHEMICAL SENSING](#)
A chemical sensor architecture based on a fabric-based spectrometer.
-  [QUBIT CIRCUITS WITH DEEP, IN-SUBSTRATE COMPONENTS](#) *Enables sophisticated quantum computing by reducing the footprint of qubits and increasing their density.*
-  [ALL-TO-ALL CONNECTED OSCILLATOR NETWORKS FOR SOLVING COMBINATORIAL OPTIMIZATION PROBLEMS](#)
A network of non-linear electronic oscillators can solve complex combinatorial optimization problems using the weighted Ising model.
-  [ELECTROSPRAY DEVICES AND METHODS FOR FABRICATING ELECTROSPRAY DEVICES](#) *First demonstration of miniature satellite control via passively-fed, purely ionic mode electrospay thrusters.*

VOCAL BIOMARKER-BASED PTSD SCREENING

Laboratory researchers have developed an automated post-traumatic stress disorder (PTSD) screening tool that could potentially be used as a self-assessment or inserted into routine medical visits for PTSD diagnosis and treatment.

[Read more!](#)



TRACEABLE GLOBAL FOOD-AID SUPPLY CHAIN

Moving food through the humanitarian supply chain is a complex process involving handoffs between more than 100 partner organizations. A centralized system capable of tracing food along its entire journey would enable a more coordinated food-aid response for the nearly 830 million people who face hunger today. Lincoln Laboratory is building such an end-to-end traceability system, based on unique barcodes scannable in a mobile application. [Read more!](#)



Newsletter Highlights

RECENT NEWS

Lincoln Laboratory partners with DARPA to test augmented-reality assistance systems [Read more!](#)

CONFERENCES

MIT LL presented at the 2023 [IEEE IGARSS](#) conference in **July** and hosted a booth at the exhibit hall.

Learn more about MIT LL's small satellite capabilities at the [Small Satellite](#) conference and [Side Meeting](#) on **Aug 7th** (3:30pm-4:30pm) at Utah State University. Stop by!

Did you know...

40 YEARS AGO, in 1983, MIT LL developed the Infrared Airborne Radar (IRAR), an airborne laser-radar and passive infrared system designed and built to collect high-quality images for tactical applications.



Interested in Licensing or Partnering with Us? [Contact the Technology Ventures Office, tvo@ll.mit.edu](#)

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