



September Newsletter

from the Technology Ventures Office at MIT

Latest Tech/Capabilities

 **Noncontact Laser Ultrasound offers capabilities comparable to those of MRI and CT but at vastly lower cost, in an automated and portable platform.** [Learn more!](#)

Latest in Issued Patents

 **IN VITRO TISSUE PLATE** *Organ-on-chip systems to model different body structures for the study of therapeutic disorders for a variety of human organs.*

AN ADAPTED ROBOT ASSISTS WITH SITUATION AWARENESS

Lincoln Laboratory researchers brought Spot, a Boston Dynamics robot, aboard a Coast Guard response cutter to test its ability to navigate complex environments and identify hazardous conditions.

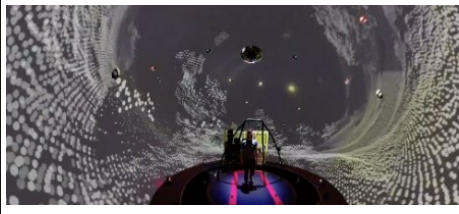
[Read more!](#)



STRIVE CENTER HOSTS UNIVERSITY OF MICHIGAN FOR EXOSKELETON STUDY

The study is investigating how human-machine interfaces influence decision making and task performance.

[Read more!](#)



TECHNOLOGY HIGHLIGHT

Uncertainty-Aware Deep Learning System (DEDUCE)

A method that enables deep neural networks to detect, with high confidence, anomalous data and adversarial AI.

[Read more!](#)



Newsletter Highlights

RECENT NEWS

New X-ray detectors to provide unprecedented vision of the invisible universe [Read more!](#)

MIT Lincoln Laboratory's Real-Time Microwave Imaging Reimagines Security for Public Venues [Read more!](#)

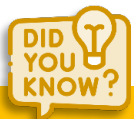
SAVE THE DATE

13–16 November

MIT LL's 5th Annual RAAINS* Workshop: Reflections and Futures

See Page 2 for details!

**RAAINS: Recent Advances in AI for National Security*



Between 1976 and 1982, Lincoln Laboratory participated in the DOE's solar photovoltaics (PV) program. During the program, the Laboratory installed more than 11,000 PV modules in 33 field sites. The Laboratory advanced the state of PV technology by inventing or improving pyrheliometers to measure solar radiance, a new voltage curve tracer, dc-to-ac converters, electrical components for PV systems, and an energy-storage unit.



Visit the [Conferences & Events Webpage](#) for Up-To-Date Full Workshop and Conference Information at MIT LL



#140410

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

<https://www.ll.mit.edu/partner-us>

MIT Lincoln Laboratory
244 Wood Street, Lexington, MA 02421

SAVE THE DATE **13–16 November, 2023** IN PERSON OR VIRTUAL



RECENT ADVANCES IN AI FOR NATIONAL SECURITY

5th Annual RAAINS Workshop: Reflections and Futures

RAAINS Website:

<https://l1events.ll.mit.edu/raains/>

Username: **RAAINS23!**

Password: **MITLL23!**

Open to U.S. Citizens
and Permanent
Residents

Questions?
raains@ll.mit.edu

We hope you will be able to join us for MIT Lincoln Laboratory's fifth annual Recent Advances in Artificial Intelligence for National Security (RAAINS) Workshop on 13–16 November 2023. RAAINS is a premier event in applied AI that draws together scientists and practitioners from across academia, industry, and government.

The 2023 conference will be hosted in a hybrid format and feature exciting topics across four days:

Day 1: AI Courses, Laboratory Tours (*concurrent sessions*)

Day 2: AI Transitions and Government Perspectives

Day 3: Next-Generation AI Technologies

Day 4: Vanguard Topics, AI Applications* (*concurrent sessions*)

RAAINS is an excellent opportunity for attendees to gain insight into cutting-edge AI technologies and applications, form strategic partnerships, and interact with top talent. Past workshops have had over 650 attendees from more than 220 organizations.

To enhance connections and collaborations, there will be a poster session and networking reception on Day 2. We invite all attendees to participate and highlight their organizations. Tables will be available to reserve for demonstrations, products, discussions, and collaboration opportunities.

Please visit the [RAAINS website](https://l1events.ll.mit.edu/raains/) for more information about the planned events and registration details. **Registration will open in September.**

* *The AI Applications session on 16 November will be restricted and in person only. All other sessions on Days 2–4 will be available in person and via webcast.*

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