What techniques of camouflage and deception are effective against AI/ML or autonomous systems on the battlefield?

The Defense Systems Information Analysis Center (DSIAC) was asked to research techniques for defeating adversary artificial intelligence/machine learning (AI/ML) target recognition. AI/ML research is driving the advancement of the next generation of automatic target recognition (ATR) capabilities using electro-optical infrared (EO/IR) sensors. The inquirer was seeking to develop and field robust AI/ML-based ATR algorithms and, at the same time, recognized that it is critical to develop concealment and deception technologies to protect against peer and near-peer... READ MORE
**VOICE FROM THE COMMUNITY**

Ramesh Bharadwaj  
*Naval Research Laboratory*

Dr. Bharadwaj is a senior systems researcher in high-assurance systems at the Navy’s Center of Excellence. He conducts research in rigorous engineering methods and tools for the specification, design, and construction of mission-critical, software-intensive systems to ensure their dependability, security, and safety. He is currently the principal investigator on a research project on assuring autonomy, which includes creating developer-friendly tools, methods, and guidelines to ensure safety and trust in autonomous unmanned systems that employ machine learning—more specifically, deep learning.

**HIGHLIGHT**

**Release of BlueMax7 Announced**

BlueMax (BM) version 7.0 is now available. BM, a government-owned computer program, is a pseudo six-degrees of freedom (6-DOF) point-mass aircraft flight dynamics simulation. It utilizes installed propulsion data, trimmed aerodynamic data, flight control laws/limiters, and structural limit data and features stores drag/weight effects, which are altered as stores are removed in flight. A large library of stores is selectable. BlueMax may be used in constructive mode (faster than real time) with event-driven, scripted maneuvers or as a real-time, operator-in-the-loop. [LEARN MORE](#)

**FEATURED NEWS**

**Agency Addresses Hypersonic Vehicle Detection, Satellite Survivability**

“The Space Development Agency [SDA] will be fielding satellites that will provide eyes-on capability to detect maneuverable hypersonic glide vehicles during flight, and those satellites will be affordable and prolific,” the SDA Director said.

Speaking today at the Mitchell Institute for Aerospace Studies’ Schriever Spacepower Forum, Derek Tournear said satellites in low-Earth orbit, or LEO, will make up the tracking layer that will be able to detect hypersonic threats by their heat signatures, eventually on a global scale. [READ MORE](#)
WEBINARS

Advanced Spray-Drying Technology for the U.S. Department of Defense (DoD)

Presented: February 23, 2022 12:00 PM - 12:45 PM  
Presenter: Steve Rowley  
Host: DSIAC

In this presentation, we will first discuss basic spray-drying theory with attention to both aqueous and solvent-based systems, principles and techniques of atomization and particle separation, properties of spray-dried particles, types of spray dryers, and the process parameters affecting spray drying. Next, we will discuss how advanced techniques such as particle surface modification and microencapsulation can be used to improve powder flow-ability, produce water-dispersible powders from oil-based substrates, and provide shelf-stable powders containing viable probiotics or viruses. Finally we will discuss the basic steps that an... LEARN MORE

EVENTS

Transformative Vertical Flight  
January 25-27, 2022

Virtual Technology, Systems & Ships  
January 26-28, 2022

Modern Threats: Surface-to-Air Missile Systems Conference 2022  
February 7-11, 2022

2022 Personnel Recovery (PR) Modernization  
February 7-11, 2022

UAV Technology USA  
February 7-8, 2022

Military Standard 810 (MIL-STD-810) Testing Open Course (NTS Fullerton, CA)  
February 14-17, 2022

Want your event listed here?  
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RECENT NEWS

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IVAS Allows Maximum Mission Awareness In-Transit

NSWCDD Department Stands Up High-Powered Microwave Division in Directed Energy Refocusing Efforts

Maintain Battalion Fields New Modular Diagnostic Test System

NSWC Dahlgren Engineers Deliver Upgraded Gun Aircraft Unit for the Warfighters’ Most Lethal Gunship

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