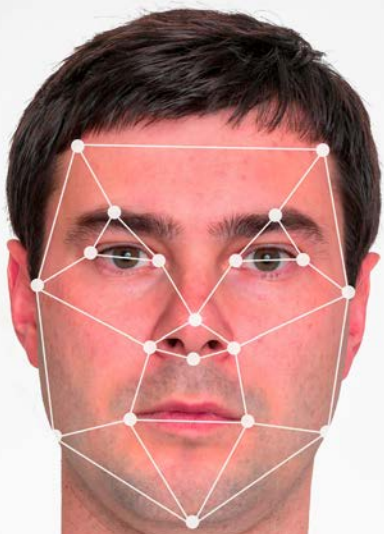


DEFENSE

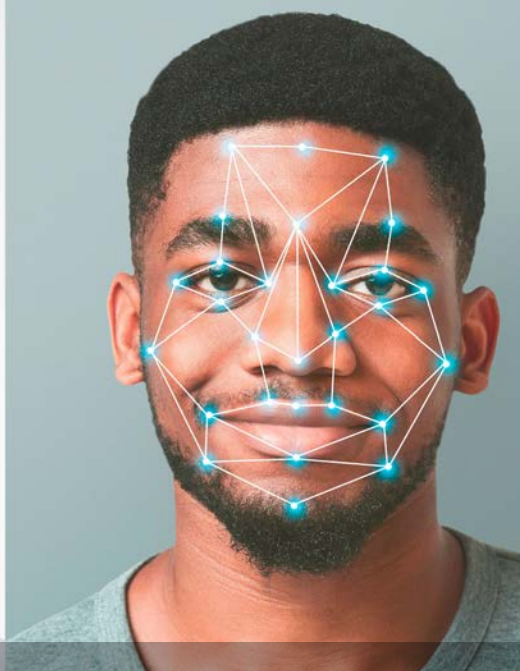
Systems Digest

The Latest From the Defense Systems Information Analysis Center // January 25, 2022



SUBMIT A TECHNICAL INQUIRY

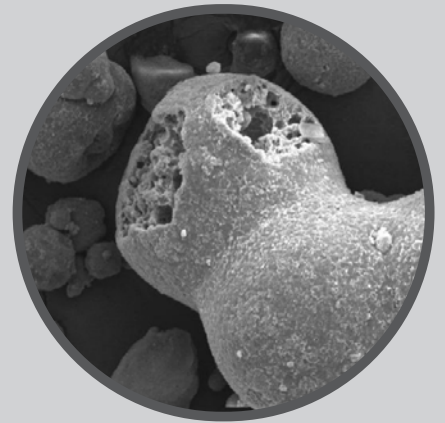
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NOTABLE TECHNICAL INQUIRY

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](#)



SNEAK PEEK

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

DATE:
February 23, 2022

TIME:
12:00 PM - 12:45 PM

PRESENTED BY:
Steve Rowley

HOST:
DSIAC



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.

**BECOME A SUBJECT
MATTER EXPERT**



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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

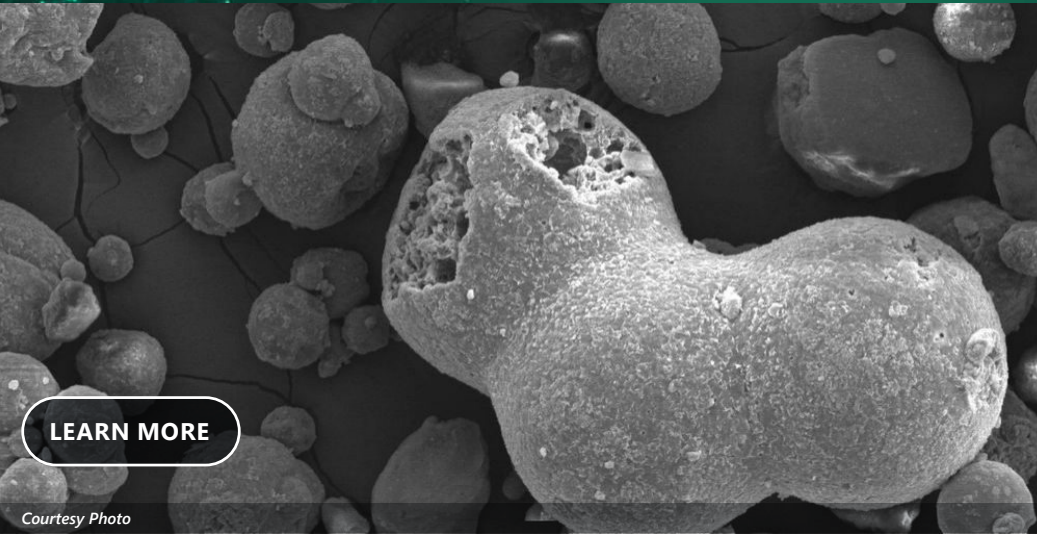
Agency Addresses Hypersonic Vehicle Detection, Satellite Survivability

"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](#)

Image: U.S. Space Force



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Courtesy Photo

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](#)



DVIDS

HDIAC: Introduction to the Interagency Modeling and Atmospheric Assessment Center (IMAAC)
 February 16, 2022 12:00 PM



U.S. Army

CSIAC: Digital Transformation of SATCOM Networks
 February 23, 2022 12:00 PM

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?
 Email contact@dsiac.org, to share your event.

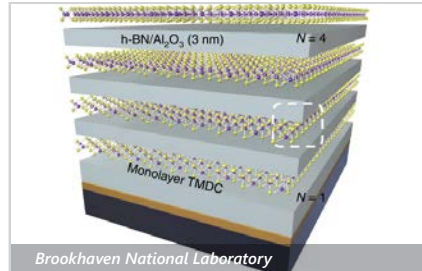
-  Advanced Materials
-  Autonomous Systems
-  C4ISR
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-  Energetics
-  Military Sensing
-  Non-Lethal Weapons
-  RMQSI
-  Survivability & Vulnerability
-  Weapons Systems

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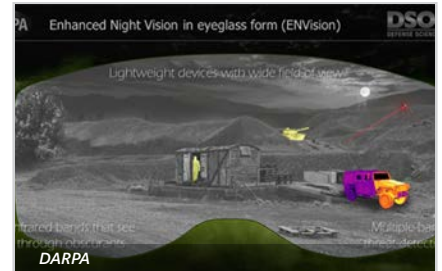
RECENT NEWS



Brookhaven National Laboratory

New Atomically-Thin Material Could Improve Efficiency of Light-Based Tech

Advanced Materials



DARPA

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U.S. Army

IVAS Allows Maximum Mission Awareness In-Transit

Autonomous Systems



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

Advanced Materials



U.S. Army

Maintain Battalion Fields New Modular Diagnostic Test System

RMQSI



DVIDS

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

Advanced Materials