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GTRI Signal

MONTHLY RESEARCH NEWSLETTER

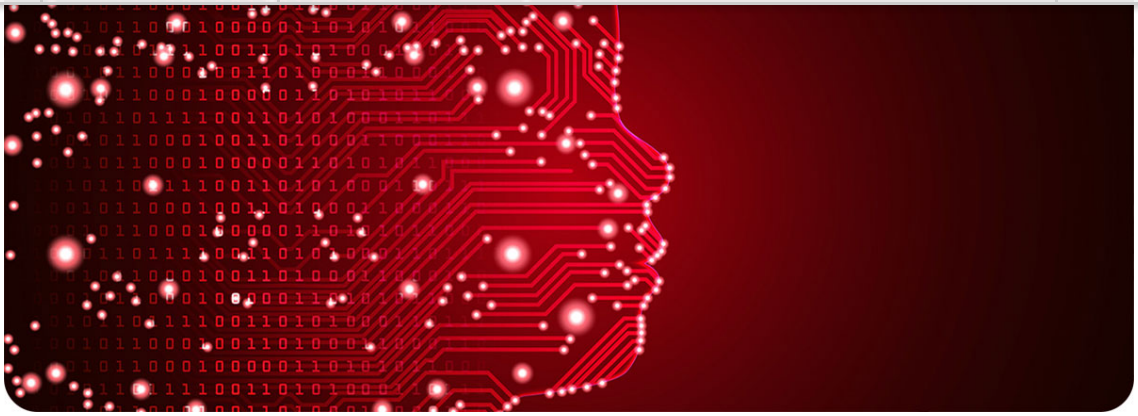
Georgia Tech Research Institute

APRIL RESEARCH NEWS

From Virtual Reality to Ice Slurries: How ATRP is Impacting Georgia, the Nation and World

In the age of Covid-19, the need for industries to adopt advanced technologies, incorporate more health and safety standards into their daily operations, and maintain a robust workforce is more important than ever.

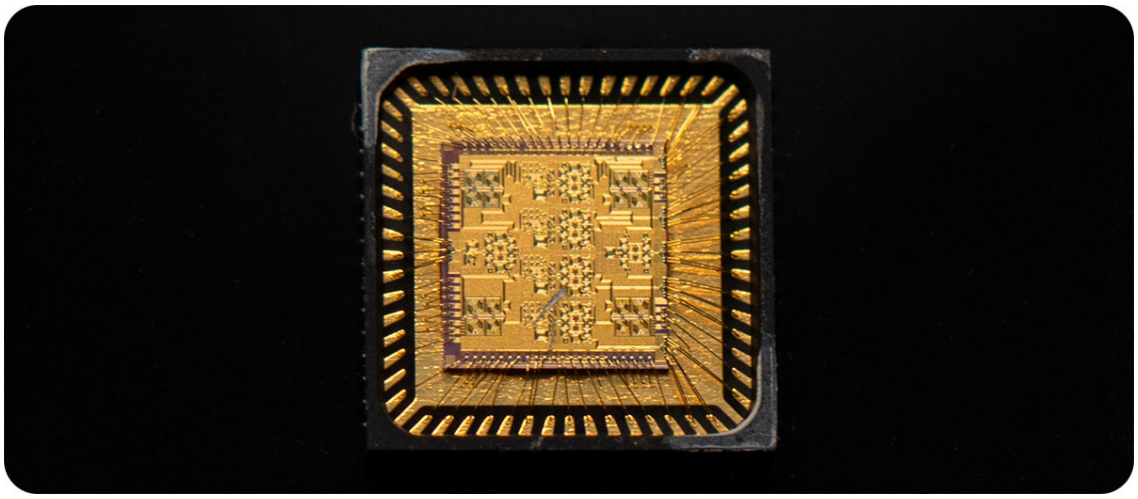
Full Story



Artificial Intelligence Helps Classify COVID-19 Severity in Pregnant People

By applying natural-language artificial intelligence techniques to analyze text fields in health records, researchers have developed an automated approach for classifying the severity of COVID-19 illness among pregnant people.

Full Story



Silicon-Germanium Integrated Circuit Enables Direct Throughput RF Signal Processing

Researchers have developed a new general-purpose, high-performance monolithic microwave integrated circuit (MMIC) for the direct filtering and processing of radio frequency (RF) signals in the microwave and millimeter-wave spectrum.

Full Story

Virtual Sensing in Predictive Maintenance Helps Boost Rotorcraft Availability

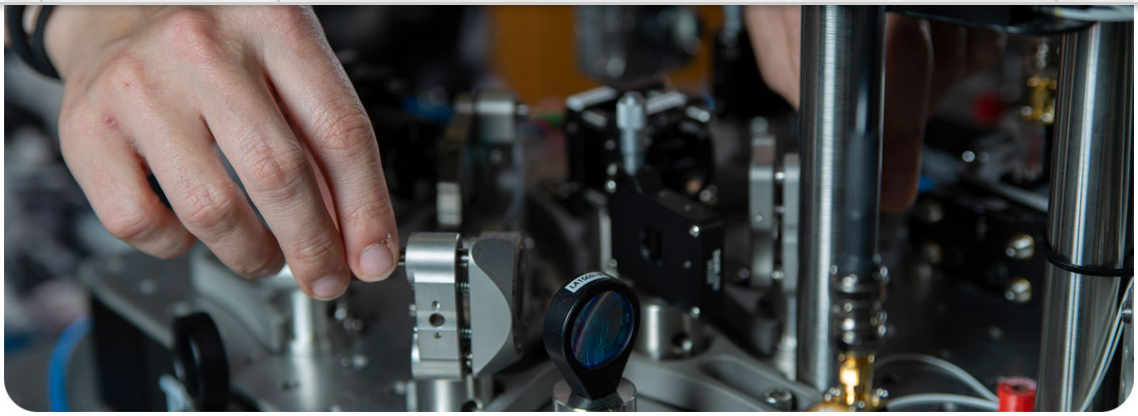
Artificial Intelligence (AI) techniques, Computational Fluid Dynamics (CFD) simulations and data analytics procedures are being used jointly to help improve the availability of a critical U.S. Air Force helicopter while reducing maintenance costs and extending how long the aircraft can remain in service.

Full Story

Radar Signal Processing Techniques Help Predict Molecular Binding

Analyzing the faint electromagnetic signals emitted by biomolecules could give researchers a faster and simpler way to predict how small molecules such as those found in medicines may bind with receptors within cellular membranes.

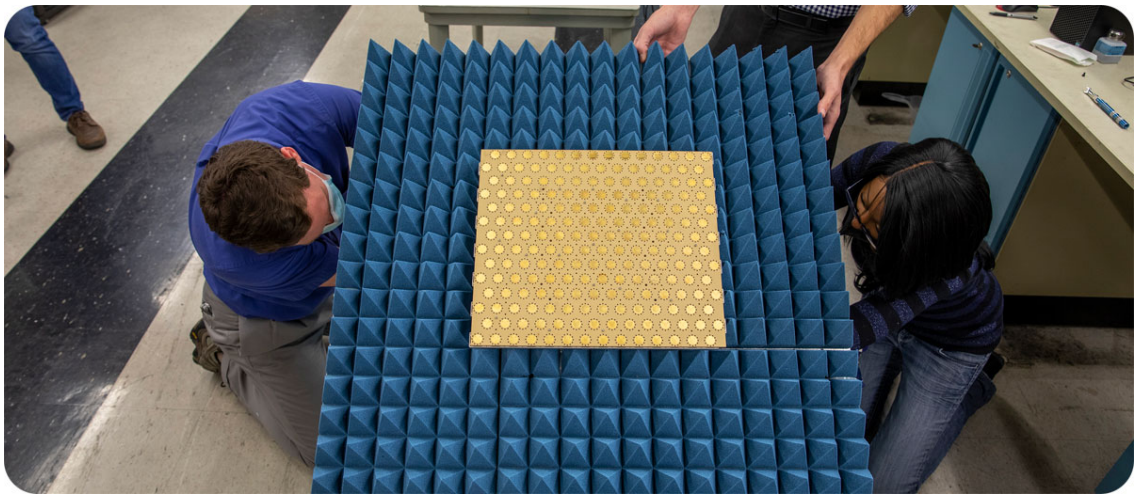
Full Story



New Approach Transports Trapped Ions to Create Entangling Gates

Trapped ions excited with a laser beam can be used to create entangled qubits in quantum information systems, but addressing several stationary pairs of ions in a trap requires multiple optical switches and complex controls.

Full Story



Modular Open Architecture Enables Low-Cost Adaptive Radar Applications

Digitally-reconfigurable modular hardware and software building blocks designed to work together are key components of GTRI's Software-Defined Configurable RF Array (COBRA) initiative, which is intended to facilitate rapid development of low-cost phased-array radar systems for ground, airborne, spaceborne, electronic warfare, communication, and other applications.

Full Story

FEATURED STORY

Turning Broken Promises into the Hope of a Fresh Start for Afghan Families

GTRI Senior Research Engineer and Georgia Tech alumnus Roger Hill is on a mission to help rescue Afghan families who have supported the U.S. military out of Afghanistan.

Full Story

GTRI PEOPLE

Celebrating Inclusive Excellence: Lisa Manning Succeeds by Empowering Others

When new administrators and admin managers come on board at the Georgia Tech Research Institute (GTRI), many of their colleagues point them to Lisa Manning for help and expertise.

GTRI IN THE NEWS

Using the Building Blocks of Life to Store Data (Georgia Tech Alumni Magazine)

[Offshore Wind Turbines Could Mess With Ships' Radar Signals (Wired)]

[Lunar Flashlight to Search for Water on the Moon (Tech Briefs)]

[GTRI Researchers Develop Technology for Earlier Tornado Warning (WSB-TV) GTRI segment starts at about 14:15]

FEATURED VIDEO

Anne Clark: Paving the Way for the Next Generation of Female Leaders

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