FEDERAL AGENCY FUNDING OPPORTUNITIES | ARTIFICIAL INTELLIGENCE / MACHINE LEARNING | ROBOTICS / AUTONOMOUS VEHICLES | QUANTUM | CYBERSECURITY / PRIVACY | MICROELECTRONICS | CLIMATE CHANGE / GREEN ENERGY & IT | OTHER IT RELATED | STEM / WORKFORCE & IT | STEM / WORKFORCE RESOURCES & OPPORTUNITIES | NITRD NEWS | UPCOMING CONFERENCES / WORKSHOPS / WEBINARS

NITRD News Brief

We are pleased to continue NITRD's News Brief that offers insight into the activities NITRD's member agencies are conducting to achieve the Nation's priorities through the lens of the public-facing news sources. These are divided into networking and information technology topics that have been identified as of great importance for improving Americans' daily lives.

For ease of access, under NITRD's logo, the title of each section is listed as a link to that section. The titles of the articles under the section's heading are links that provide immediate access to the news article listed. We hope you find this informative and helpful in your daily activities.

Do you know someone who would like to receive NITRD's weekly news brief? They can email NITRD's IT aficionados at nco@nitrd.gov and voilà they will receive the news brief with the cool technology articles each week!

Federal Agency Funding Opportunities

HHS: NIOSH Robotics and Intelligent Mining Technology and Workplace Safety Research
...The purpose of this Notice of Funding Opportunity Announcement (NOFO) is to solicit meritorious applications from universities with degree programs in mining and explosives engineering to develop and conduct research initiatives in automation, robotics, and intelligent mining systems to improve workplace safety and health in U.S. mining operations. Application Due Date: Apr 28, 2023
United States Department of Health and Human Services - Jan 13, 2023

Artificial Intelligence / Machine Learning

DOE Supported Research Shows AI-Driven Technique Discovers New Nanostructures

...Scientists at the U.S. Department of Energy's (DOE) Brookhaven National Laboratory have successfully demonstrated that autonomous methods can discover new materials. The artificial intelligence (AI)-driven technique led to the discovery of three new nanostructures, including a first-of-its-kind nanoscale "ladder." The newly discovered structures were formed by a process called self-assembly, in which a material's molecules organize themselves into unique patterns. Self-assembly can be used as a technique for nanopatterning, which is a driver for advances in microelectronics and computer hardware. Blending self-assembling materials together has enabled CFN scientists to uncover unique structures, but it has also created new challenges. With many more parameters to control in the self-assembly process, finding the right combination of parameters to create new and useful structures is a battle against time. To accelerate their research, CFN scientists leveraged a new AI capability: autonomous experimentation. The AI framework can autonomously define and perform all the steps of an experiment. CAMERA's gpCAM algorithm drives the framework's autonomous decision-making. To accelerate materials discovery using their new algorithm, the team first developed a complex sample with a spectrum of properties for analysis. The algorithm, without human intervention, created of model of the material's numerous and diverse set of structures. The model updated itself with each subsequent x-ray measurement, making every measurement more insightful and accurate. ... From start to finish, the experiment ran about six hours. The researchers estimate they would have needed about a month to make this discovery using traditional methods. This research was supported by the DOE Office of Science.
Brookhaven Lab - Jan 13, 2023

NSF-funded Iowa State University researchers will harness machine learning to provide residents with personalized warnings of heat emergencies

...Excessive heat was the leading cause of weather fatalities in the United States in 2021. The Iowa State University research team recently received a three-year, $1.2 million grant from the National Science Foundation to gather data and develop sophisticated machine-learning tools capable of giving residents in higher-risk Des Moines neighborhoods more time to prepare for dangerous heat in their homes. The research team envisions an automated heat alert system that notifies residents when their home might be at risk of getting dangerously hot. The tool would account for variables such as construction materials, vegetation and surface color of buildings, which all influence the way a structure heats up or stays cool when weather changes. The result would be a system that provides better lead time for residents with warnings tailored specifically to their living environment. The researchers will use machine learning to sift through the data compiled during the project and account for the physics of temperature differentials and airflow. They'll then design an app that allows residents to input data specific to their living environment and then receive personalized warnings about the potential for dangerous heat...
Iowa State University News Service - Jan 17, 2023

UNM, Purdue develop validated physics-based machine learning autonomous control architecture for microreactors with a DOE award

...A collaborative team received the Department of Energy Nuclear Engineering University Program award to develop a validated, physics-based, machine-learning, autonomous-control architecture for the UNM very small, long-life modular (VSLLIM), a liquid sodium, natural circulation-cooled microreactor. The knowledge and capabilities to be developed as a part of this effort can also be leveraged to benefit the light water reactor sustainability and advanced sensor and instrumentation national research and development efforts...
UNM Newsroom - Jan 13, 2023

Research Team Earns NSF Entrepreneurship Grant for Consumer-Savvy AI-Guided Imaging

...The National Science Foundation awarded an Innovation Corps entrepreneurship grant to an Arkansas Agricultural Experiment Station research team for a machine vision system developed using artificial intelligence-guided imaging. The I-Corps Program uses experiential education to help researchers gain valuable insight into entrepreneurship, starting a business or industry requirements and challenges. Funded by an NSF seed grant, Dongyi Wang developed the idea of teaching an AI program to discern human responses to digital images of food products. The team used machine learning technology to teach an AI-guided digital imaging system to predict whether or not consumers would find food products acceptable. The AI-guided system now has a high reliability rate in predicting consumer acceptance...
News - University of Arkansas - Jan 13, 2023

Robotics / Autonomous Vehicles

Autonomous crawling soft 'ringbots' can navigate narrow gaps

...U.S. National Science Foundation-supported researchers at North Carolina State University have created a ring-shaped soft robot capable of crawling across surfaces when exposed to elevated temperatures or infrared light. The researchers have demonstrated that the "ringbots" are capable of pulling a small payload across a surface in ambient air

or under water and can pass through a gap narrower than their ring size. The crawling ringbot moves from the bottom up when placed on a hot surface. But when exposed to infrared light, the movement begins from the top down. The concept of intelligence embedded in the body in contrast to computational intelligence enabled by a central processing unit is emerging as the next frontier in the field of human-made autonomous systems. This work uses the convergence of mechanics, materials science and robotics to fundamentally push research in this area...
National Science Foundation - Jan 17, 2023

Computers that power self-driving cars could be a huge driver of global carbon emissions

...In the future, the energy needed to run the powerful computers on board a global fleet of autonomous vehicles could generate as many greenhouse gas emissions as all the data centers in the world today. MIT researchers built a statistical model to study the potential footprint of autonomous vehicles. They determined that 1 billion autonomous vehicles, each driving for one hour per day with a computer consuming 840 watts, would consume enough energy to generate about the same amount of emissions as data centers currently do. To keep autonomous vehicle emissions from zooming past current data center emissions, each vehicle must use less than 1.2 kilowatts of power for computing, which would require more efficient hardware. The researchers modeled the workload of a popular algorithm for autonomous vehicles, known as a multitask deep neural network because it can perform many tasks at once. They explored how much energy this deep neural network would consume if it were processing many high-resolution inputs from many cameras with high frame rates, simultaneously. If one autonomous vehicle has 10 deep neural networks processing images from 10 cameras, and that vehicle drives for one hour a day, it will make 21.6 million inferences each day. To put that into perspective, all of Facebook's data centers worldwide make a few trillion inferences each day. These vehicles could actually be using a ton of computer power. This research was funded, in part, by the National Science Foundation...
MIT News - Jan 13, 2023

Quantum

Artifacts, Begone! NIST Improves Its Flagship Device for Measuring Mass by Adding a Quantum Hall Array Resistance Standards

...At the National Institute of Standards and Technology (NIST) there is a room-sized electromechanical machine called the NIST-4 Kibble balance. It can measure the mass of objects of roughly 1 kilogram, about as heavy as a quart of milk, as accurately as any device in the world. NIST researchers have further improved their Kibble balance's performance by adding to it a custom-built device that provides an exact definition of electrical resistance. The device is called the quantum Hall array resistance standard (QHARS), and it consists of a set of several smaller devices that use a quirk of quantum physics to generate extremely precise amounts of electrical resistance. The new custom-built QHARS device is an example of a measurement standard — an object or instrument that has some predefined relationship to a physical quantity such as length or time or brightness. The generated resistance then serves as a reference during the Kibble balance's operation...
National Institute of Standards and Technology - Jan 18, 2023

Cybersecurity / Privacy

53rd Wing unveils DoD's newest Cyber Facility

...The Department of Defense's newest cyber facility has been officially activated as of Jan. 10, 2023, housing the 53rd Computer Systems Squadron. The 53rd CSS mission is to operate, protect, and maintain classified and compartmentalized communications and information systems in support of Operational Test and Evaluation, Electronic Warfare, and Advanced Program operations. The main objective of the 53rd CSS is to provide geographically separated operators, analysts, and engineers secure, high speed, uninterrupted access to OT&E, EW, and AP data; accelerating information to leadership and acquisition partners...
Air Combat Command - Jan 12, 2023

Microelectronics

US leverages its relationship with Taiwan to help rebuild the domestic semiconductor industry. How can both countries benefit from the deal?

...The world's largest chipmaker, Taiwan Semiconductor Manufacturing Co., revealed that it will be increasing its investment in the U.S. to $40 billion to build a second factory in Phoenix, Arizona, in addition to the initial factory announced in 2020. TSMC's knowledge and management of chip production processes will advance the U.S. industry. The U.S.

does not need to become 100% self-sufficient, Northeastern experts say, and its relationship with TSMC is driven not only by economic efficiency. In the early 1980's, the U.S. semiconductor industry was competing only with Japan. All this technology was invented in the U.S.—transistor, even the memory chips. The main concern in the industry in the 1980's and early 1990's was the manufacturing cost. The cost of building a foundry, or a fab, (the semiconductor production facility) increased to $1 billion in the 1990's. The number of leading-edge foundries globally decreased from about 30 in 2001 to five—TSMC, Global Foundries, Intel, Samsung and Micron—by 2011. ... With the financial support from the Defense Advanced Research Project Agency, National Science Foundation and the industry, Northeastern was able to develop a new technology that allows to manufacture a chip on one machine in one day at a 100 times lower cost and with the carbon footprint reduced by 20 times...
Northeastern News - Jan 13, 2023

Climate Change / Green Energy & IT

Offshore and Coastal Risk Analyses May Misrepresent Wave Storms from Extreme Weather Like Bomb Cyclones

...Extreme weather events, such as the storm waves generated by a cyclone may be underestimated in many models used to estimate coastal flooding. Models used to estimate the height of coastal storm waves can differ by several feet, leading to some areas being possibly under protected during extreme wave events. The first-of-its-kind study compared wave estimates from 12 global models with historical buoy observations across different ocean areas. The researchers found that to more accurately assess offshore and coastal risk and inform future mitigation and adaptation responses, decision and policy makers must account for differences between global wave models and take into account observation measurements based on today's climate. This means considering different models and using additional, modern observational data to better constrain extreme wave estimates under current climate conditions. The additional data could include long-term observational records from satellite missions and more data from buoys. The research was funded by the U.S. National Science Foundation and the U.S. Geological Survey...
UCF Today - Jan 12, 2023

Oregon State is part of $199M federal push by DOE for cleaner cars and trucks

...Researchers in the Oregon State University College of Engineering are partnering with Daimler Trucks North America to develop a zero-emissions heavy-duty truck capable of regional and long-haul freight deliveries. They will use advanced electrical propulsion and artificial intelligence research to create the power electronics, motor drive technology and energy management tools for a hydrogen fuel cell truck tractor with a 600-mile range, a 25,000-hour cell life and a payload capacity equivalent to that of a diesel truck. The work by Oregon State is part of $25.8 million awarded by the Department of Energy to Daimler Trucks North America and $199 million awarded overall by the DOE to fund 25 projects geared toward putting cleaner cars and trucks on America's roads and improving the nation's electric vehicle charging infrastructure. According to the DOE, the transportation sector is the U.S. leader in carbon pollution among all economic sectors, accounting for nearly 29% of emissions. The department awarded a total of $127 million to five heavy-vehicle manufacturers in the latest round of SuperTruck funding...
Oregon State University - Jan 17, 2023

Other IT Related

OSTP Releases Framework for Strengthening Federal Scientific Integrity Policies and Practices

...The White House Office of Science and Technology Policy (OSTP) released "A Framework for Federal Scientific Integrity Policy and Practice," a roadmap that will help strengthen scientific integrity policies and practices across the federal government. This framework builds on the assessment of federal scientific integrity policies and practices described in the January 2022 report, Protecting the Integrity of Government Science, and draws from extensive input from federal agencies, as well as from across sectors, including academia, the scientific community, public interest groups, and industry. It has several key components that federal departments and agencies will use to improve scientific integrity policies and practices. The framework requires all agencies to designate a scientific integrity official, and agencies that fund, conduct, or oversee research to designate a chief science officer, and it establishes the National Science and Technology Council (NSTC) Subcommittee on Scientific Integrity to oversee implementation of the framework, and evaluate agency progress...
The White House - Jan 12, 2023

White House OSTP Director Prabhakar and NSF Director Panchanathan Applaud President Biden's National Science Board Appointments

...President Biden announced his intent to appoint eight renowned leaders to the National Science Board. The National Science Board guides the work of the National Science Foundation, and these appointees will help ensure that the Biden-Harris Administration continues to leverage science and technology to benefit all Americans. The National Science Board has two important roles. First, it establishes the policies of NSF within the framework of applicable national policies set forth by the President and the

Congress. The second role of the Board is to serve as an independent body of advisors to both the President and the Congress on policy matters related to science and engineering and education in science and engineering...
The White House - Jan 13, 2023

DHS S&T Awards $1.1M to Accelerate Federal Research Across U.S. Agencies

...The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) awarded $1.1 million to seven federal laboratories that support DHS missions and homeland security stakeholders. The contract awards stem from S&T's Commercialization Accelerator Program's (CAP) inaugural Call for Proposals, which seeks to identify groundbreaking technologies that demonstrate great potential for commercialization...
Homeland Security - Jan 17, 2023

Hubble Finds Hungry Black Hole Twisting Captured Star Into Donut Shape

...Astronomers using NASA's Hubble Space Telescope have recorded a star's final moments in detail as it gets gobbled up by a black hole. Astronomers are using Hubble to find out the details of what happens when a wayward star plunges into the gravitational abyss. They used Hubble's powerful ultraviolet sensitivity to study the light from the shredded star, which include hydrogen, carbon, and more. The spectroscopy provides forensic clues to the black hole homicide...
National Aeronautics and Space Administration - Jan 12, 2023

NSF official wants to catalyze research partnerships to tackle pressing societal challenges

...Erwin Gianchandani, assistant director of the National Science Foundation's recently-formed Directorate for Technology, Innovation and Partnerships, and TIP program director Rebecca Shearman want to change the way research partnerships work. TIP is funded through the CHIPS and Science Act - legislation that aims to jumpstart domestic microprocessor production and boost scientific and technology research. For NSF, TIP is a way to foster new kinds of partnerships in order to tackle pressing societal challenges such as climate change, equity and critical infrastructure. When looking at robotic-human interaction, Gianchandani encourages researchers to connect with labor representatives and other groups that will be impacted by emerging technologies. TIP is a way to shift the NSF's "foundational research" to also use-inspired work focused on practical application...
Northeastern News - Jan 12, 2023

STEM / Workforce & IT

NIST's Manufacturing Extension Partnership Presents an Infographic on Training: Responding to the Skills Gap

...A 2021 survey by the National Association of Manufacturers found that 80% of companies say their top challenge is the inability to attract and retain a quality workforce. The MEP National Network™ is helping small and medium-sized manufacturers develop the workforce solutions they need. MEP Centers across the U.S. and in Puerto Rico, partnering with local education and economic development partners, offer a variety of training suited to each company's unique needs. The U.S. manufacturing skills gap could leave as many as 2.1 million jobs unfilled by 2030. While challenges like the labor shortage and a generational shift exist, solutions are available for manufacturers. The infographic, "Training: Responding to the Skills Gap" offers tips on how to create effective programs to retain and engage employees, leverage technology, apply lean manufacturing principles and how the MEP National NetworkTM can help...
National Institute of Standards and Technology - Jan 12, 2023

PNS, AmeriCorps Partnership on STEM Outreach, School Liaison

...Portsmouth Naval Shipyard (PNS) entered into a Memorandum of Agreement (MoA) with the federal agency AmeriCorps to establish a collaborative, mutually beneficial relationship between AmeriCorps Volunteers in Service to America (VISTA) and PNS. AmeriCorps VISTA is a program that places full-time national service members in nonprofit and public agencies to build capacity and sustainability in support of alleviating poverty in the United States. The Military Youth and Family Support VISTA member will support and engage economically disadvantaged military students and families through the creation of meaningful local resources, scholarship guides, and a diversity, equity and inclusion lending library to ease the navigation of frequent moves. The STEM Outreach VISTA member will support the PNS team of trades and engineering professionals to expand STEM opportunities in underserved schools by developing meaningful educational partnerships and expanding the existing SeaPerch underwater robotics program...
Navy.mil - Jan 17, 2023

NASA Awards Students Flight Opportunity in TechRise Challenge

...NASA selected 60 winning teams for the second TechRise Student Challenge, a nationwide contest designed to engage students in technology, science, and space exploration. These teams will work together to build science and technology experiments in preparation for a suborbital flight test. The challenge was open to students in grades six through 12 at American public, private, or charter schools, including those in U.S. territories. This year, winning teams include about 500 students representing 38 states and territories. Each team will receive $1,500 to build their experiments and an assigned spot to test it on one of two NASA-sponsored high-altitude balloon flights scheduled for this summer. Winning proposals address a wide variety of science and technology challenges, including evaluating the effects of climate change; protecting humans, electronics, and various materials against radiation; testing machine learning and computing techniques for space technology; and supporting human health on long-duration space missions. TechRise offers students both hands-on experience with the payload build and flight test process, as well as the chance to contribute to NASA's mission of exploring space and studying our planet. The Flight Opportunities program, part of NASA's Space Technology Mission Directorate (STMD), rapidly demonstrates technologies for space exploration, discovery, and the expansion of space commerce. TechRise is one of many NASA prizes and challenges that offer opportunities to participate in America's space program. The latest NASA TechRise Student Challenge news and updates on the student teams' progress will be available on the TechRise website...
National Aeronautics and Space Administration - Jan 12, 2023

USF student illustrates children's book for NASA

...Growing up near Kennedy Space Station, Andrea Coloma always dreamed of working for NASA one day – not as an engineer or astronaut – but as a graphic designer. Fast forward to today, she just finished illustrating an educational children's book for NASA's Space Communication and Navigation program (SCaN), thanks in part to a series of internships with NASA. Created during her fifth and final internship, the children's book highlights SCaN's role in the recent Artemis I mission, which successfully splashed down to Earth on Dec. 11. Over the course of two internship sessions, she was tasked with creating three, one-minute children's animation videos that explain how NASA's Orion spacecraft would use a distant retrograde orbit during Artemis I, the first of NASA's historic Artemis missions, which will land the first woman and the first person of color on the moon by 2025...
University of South Florida - Jan 13, 2023

WIU Named National Center of Academic Excellence in Cyber Defense

...Western Illinois University has been designated as a National Center of Academic Excellence in Cyber Defense (NCAE-CD) for its Bachelor of Science degree in Cybersecurity. The NCAE-CD program is managed by the NSA's National Cryptographic School, with federal partners including the Department of Homeland Security, the Federal Bureau of Investigation (FBI) and the National Science Foundation (NSF). WIU is formally recognized by the U.S. government for its robust Cybersecurity program, having undergone in-depth assessment and meeting rigorous requirements. The newly established WIU Cybersecurity Center acts as the resource for the cybersecurity curriculum and practice. success opens up great opportunities for further collaboration with the NSA and Department of Homeland Security...
Western Illinois University - Jan 12, 2023

Claflin University Receives More Than $17.4 Million to Support Construction of a New Science and Technology Center

...As a premier liberal arts college/university, Claflin's focus is on expanding its STEM programs. It received a major boost when South Carolina Congressman Jim Clyburn announced that the federal budget passed by Congress included $17,417,000 to support the construction of a new science and technology center at the University. The funds will assist Claflin with establishing a new state-of-the-art research facility that will increase the University's capacity to conduct research in emerging bioscience areas, environmental science, and cybersecurity. Claflin hopes to create a pipeline for globally competitive STEM majors to research opportunities with the National Institute of Standards and Technology (NIST), a division within the Department of Commerce that is also one of the nation's oldest physical science laboratories. The new center will expand the capabilities of faculty to work with students as researchers and scholars...
Claflin University - Jan 13, 2023

STEM / Workforce Resources & Opportunities

R&D WORKFORCE TRAINING: FEDERAL AGENCIES' STEM INTERNSHIPS, SCHOLARSHIPS, AND TRAINING OPPORTUNITIES

...Increasing the availability of STEM opportunities is a priority in the Biden-Harris Administration. To help facilitate this, the team at NITRD developed a STEM Portal that allows anyone to search for internships and other training opportunities at Federal agencies. The NITRD STEM PORTAL is a searchable database that includes a description, link, and contact information for each program listing. Government-sponsored internships and training programs are competitive, but there are many Federal opportunities and the NITRD STEM Portal is here to help...
The Networking and Information Technology Research and Development (NITRD) Program - Dec 29, 2022

NSF & American Association of Community Colleges call all community college student innovators

...The U.S. National Science Foundation, in partnership with the American Association of Community Colleges, has launched its platform to advance student innovation and impact in STEM through the Community College Innovation Challenge. The competition seeks to foster the development of students' innovation, communication and entrepreneurial skills. The CCIC is a national competition where community college student teams, working with a supportive faculty or an administrator mentor, use STEM to produce potentially transformative and innovative solutions to real-world problems. Teams of two to four students are invited to submit proposals, and up to 12 final teams will be selected to develop their proposals during an innovation boot camp. The teams will then create and present an entrepreneurial pitch to a panel of professionals with a chance to win cash awards. All team submissions are due by 11:59 p.m. PST on March 30, 2023. ...
National Science Foundation - Jan 17, 2023

NASA, DOD Seek Applicants for Hands-On Learning to Develop CubeSats for Launch

...NASA’s CubeSat Launch Initiative (CSLI) is collaborating with the U.S. Air Force and U.S. Space Force to solicit applicants for a set of hands-on learning engagements that will help higher education institutions, faculty, and students elevate efforts to build small satellites and enhance the potential to be selected for flight opportunities. Teams selected for the University Nanosatellite Program (UNP) Mission Concept-1: 2023 Summer Series, will receive systems engineering training that prepares students for the industrial workforce while developing small satellite expertise at U.S. universities. The program, which runs from May through August 2023, also enhances students’ potential to be selected for flights to space as part of NASA’s CSLI in November 2023 and the full U.S. Air Force UNP in 2024. APPLY NOW through FEB 3!
National Aeronautics and Space Administration - Jan 12, 2023

NITRD News

NOTICE OF OPEN TO THE PUBLIC MEETINGS OF THE NETWORKING AND INFORMATION TECHNOLOGY RESEARCH AND DEVELOPMENT (NITRD) PROGRAM

...The NITRD Program holds meetings that are open to the public to attend. The Joint Engineering Team (JET) and Middleware And Grid Interagency Coordination (MAGIC) Team provide an opportunity for the public to engage and participate in information sharing with Federal agencies. The JET and MAGIC Team report to the NITRD Large Scale Networking (LSN) Interagency Working Group (IWG). The Joint Engineering Team (JET), established in 1997, provides an opportunity for information sharing among Federal agencies and non-Federal participants who have an interest in high-performance research and engineering or research and education networking and networking to support science applications. The MAGIC Team, established in 2002, provides for information sharing among Federal agencies and non-Federal participants with interests and responsibility for middleware, Grid, and cloud projects; middleware, Grid, and cloud research and infrastructure; implementing or operating Grids and clouds; and users of Grids, clouds, and middleware...
NITRD - Jan 13, 2023

Upcoming Conferences / Workshops / Webinars

PREPARE: Pandemic Research for Preparedness & Resilience Jan 25-26

...LEVERS: Lessons & Experiences on Viable Epidemic Response Strategies virtual workshop January 25-26, 2023. In this virtual workshop we will bring together public health officials and modelers from around the world, to identify successes and challenges in the effective use of epidemic models for the development and implementation of public health epidemic control policies, and to discuss experiences, lessons learned, and possible solutions with application beyond pandemic preparedness...
prepare-vo.org - Jan 19, 2023

NIST: Quantum Matters in Materials Science (QMMS) Workshop Jan 31-Feb 1

...As part of the JARVIS workshops series, on Jan 31-Feb 1, 2023, NIST is organizing the 2nd QMMS workshop. The workshop will be focused on quantum phenomena in emerging materials for next generation devices. All materials are inherently quantum in nature, but only when quantum phenomena manifest at the classical scale can we hope to leverage their properties for applications. The Materials Genome Initiative represents a compelling approach to investigate quantum materials and accelerate their development for quantum information systems (QIS) or other practical industrial applications. To make the workshop as effective as possible, we plan to mainly focus on 2D and 3D inorganic superconductor, topological, magnetic and electronic materials, but we are not limited to those systems. January 31 - February 1, 2023 Virtual Only EST
National Institute of Standards and Technology - Dec 19, 2022

Journey to the NIST Cybersecurity Framework (CSF) 2.0 | Workshop #2 Feb 15

...Join NIST and expert panelists and leaders on February 15, 2023, for this second virtual workshop to discuss potential updates to the Cybersecurity Framework. This event will discuss potential significant changes to the Framework as outlined in the CSF Concept Paper, as well as build on feedback from the 2022 NIST Cybersecurity Request for Information (RFI) and the first workshop. February 15, 2023 9:00am - 5:30pm EST Virtual Only
National Institute of Standards and Technology - Jan 17, 2023

NIST: 3rd High-Performance Computing Security Workshop Mar 15-16

...NIST HPC Security Working Group (WG) has been leading the effort to create a comprehensive and reliable security guidance for HPC systems. As part of the Working Group mission and to reach greater HPC scientific community, NIST, in collaboration with National Science Foundation (NSF), will host the 3rd High-Performance Computing Security Workshop on March 15-16, 2023. The workshop aims to listen to community's needs and feedbacks, report and reflect on the ongoing activities at HPC Security WG, and define and discuss future directions with stakeholders from industry, academia, and government.
National Institute of Standards and Technology - Jan 9, 2023

Innovation Through NITRD Coordination

Networking and Information Technology Research and Development National Coordination Office, Washington, DC USA