HPC | ARTIFICIAL INTELLIGENCE / MACHINE LEARNING | ROBOTICS / AUTONOMOUS VEHICLES | QUANTUM | CYBERSECURITY / PRIVACY | 5G, WIRELESS SPECTRUM, NETWORKING & COMMUNICATIONS | ADVANCED MANUFACTURING | MICROELECTRONICS | CLIMATE CHANGE / GREEN ENERGY & IT | DIGITAL HEALTH | OTHER IT RELATED | STEM / WORKFORCE & IT | STEM / WORKFORCE RESOURCES & OPPORTUNITIES | 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!

HPC

NSF-funded simulations show asteroid that formed ancient crater larger than previously believed
...About 2 billion years ago, an impactor hurtled toward Earth, crashing into the planet in an area near present-day Johannesburg, South Africa. U.S. National Science Foundation-supported researchers at the University of Rochester provide a more accurate understanding of the large impact, which will allow scientists to better simulate impact events on Earth and other planets, both in the past and the future. Over the course of 2 billion years, the Vredefort crater has eroded. That makes it difficult for scientists to directly estimate the size of the crater at the time of the original impact, and therefore, the size and velocity of the impactor that formed the crater. The scientists conducted simulations to match the updated size of the crater. Their results showed that an impactor would have to be much larger — about 20 to 25 kilometers — and traveling at a velocity of 15 to 20 kilometers per second to explain a crater 250 kilometers in size.
National Science Foundation - Nov 1, 2022

NSF-funded modeling shows gravitational forces deep in Earth impact landscape evolution

...NSF-funded research led by Stony Brook University scientists focuses on the interplay among the evolution of the landscape, climate and fossil record of mammal evolution, and mammal diversification in the Western U.S. the researchers show through computer modeling that deep roots under mountain belts (analogous to the massive ice below the tips of icebergs) trigger dramatic movements along faults. These movements ultimately result in collapse of the mountain belt and exposure of rocks once some 15 miles below the surface. The origin of these exposures, called metamorphic core complexes, has been debated in the scientific community. The work builds on the researchers first-of-its-kind model in three dimensions that illustrates the link between climate and tectonics. They simulated the landscape and erosion/deposition history of the region before, during and after the formation of metamorphic core complexes...
National Science Foundation - Oct 31, 2022

Artificial Intelligence / Machine Learning

Readout of the Tenth Meeting of the National Artificial Intelligence Research Resource (NAIRR) Task Force
...Members of the National Artificial Intelligence Research Resource (NAIRR) Task Force met virtually for their tenth public meeting. As the penultimate convening of the Task Force before the submission of its final report to the President and Congress in December 2022, the meeting focused on refining details of the implementation plan related to the standup timeline, security requirements, data resources, and administrative home for the envisioned NAIRR. The Task Force has been working since June 2021 to develop a vision and implementation plan for the NAIRR – a national cyberinfrastructure that would democratize access to resources and tools that fuel Artificial Intelligence (AI) research and development (R&D). Expansion of access would aim to broaden the range of researchers involved in AI, grow and diversify approaches to and applications of AI, and open opportunities to advance AI R&D across scientific fields and disciplines, including in critical areas such as AI auditing, testing and evaluation, bias mitigation, and security. The first topic taken up by the Task Force related to the timeline for a phased establishment of the NAIRR. The Task Force discussed integrating an option of a pilot approach into the recommended timeline, with the aim to leverage existing resources, software stacks, and service providers to launch a pilot that would expedite making resources available to the AI R&D community while the full NAIRR is coming online. The Task Force will hold its eleventh public meeting on December 7, 2022...
The White House - Oct 27, 2022

Artificial Intelligence Teaching Software to Track Coastal Change
...USGS scientists studying coastal change are increasingly using remote sensing techniques to collect data—from satellites, time-series cameras, drones, and other automated imaging methods. While remote sensing allows scientists to capture coastal data of unprecedented quality and quantity, these data must first be processed before they are useful—they must be sorted in an intelligible, reproducible, and standardized way. Classifying imagery based on identifiable pixels is known as image segmentation, a common method of processing natural science data into meaningful units. Manual image segmentation is time-consuming. USGS researchers and partners created a software program that uses artificial intelligence, guided by a human user, or a "human-in–the-loop", to perform fast and accurate image segmentation of coastal change data. The program, called Doodler, can be "trained" by a human user to identify pixels as distinct data types. The researchers trained Doodler on a variety of different data set scenarios, including flood detection in post-hurricane aerial imagery, coastal evolution in satellite imagery, and benthic physical habitat mapping in sidescan sonar data. Many of these methods are citizen-science based: We have CoastSnap that gives you shoreline location, the King Tides Project that gives you flooding, and Sandsnap that gives you grain size. Doodler joins this suite of tools at our disposal. All these observations can combine to make this really big data set that is accessible to people working on coast change topics, either within USGS or outside of it...
USGS - Nov 1, 2022

NOAA-Funded Research Uses Artificial Intelligence to Learn More about "Dark" Fishing Vessels' Activities at Sea
...Fishing vessels can "go dark" by turning off Automatic Identification System (AIS) transponders that broadcast their location to satellites and terrestrial receivers. What they do during those invisible hours has long been a mystery. New research funded in part by NOAA's Office of Law Enforcement analyzes where, when, and potentially why vessels disable their AIS broadcasts. Analyzing AIS signals, the team identified more than 55,000 examples of vessels disabling their AIS signals, breaking them down by location, fishery, and home country. The researchers found that disabled AIS transponders obscure about 6 percent of all global fishing vessel activity. The team used a powerful machine learning technique to better understand why vessels intentionally disable their AIS devices. The machine learning models revealed that vessels frequently disabled their AIS devices adjacent to Exclusive Economic Zones and the high seas. AIS disabling was particularly common next to EEZs with contested boundaries and EEZs with rich fishing grounds and limited management oversight. These are both areas of concern for illegal, unreported, and unregulated (IUU) fishing. The team found that another strong driver of AIS disabling was transshipment. Transshipment is the at-sea transfer of catch, personnel, and supplies between fishing vessels and refrigerated cargo vessels. It can serve as a way to launder illegally caught seafood. This research is not definitive evidence that vessels acted illegally. However, it does provide insightful information about where, when, and what types of vessels may most likely try to disable their AIS transponder.
Noaa Fisheries - Nov 2, 2022

NSWC PCD engineers awarded DoD SMART SEED grants

...The Department of Defense Science, Mathematics, and Research for Transformation (SMART) Program recently announced $3.7 million of new research grants as part of its competitive SMART Scholar SEED Grant Program for Fiscal Year 2023. Dr. Aaron Blevins and Dr. Jorge Jimenez, NSWC PCD X Department engineers, are the Navy Lab's latest SMART SEED investigators within the field of artificial intelligence and autonomy. This program awards these grants to SMART scholars who have completed their Ph.D. degree and are beginning their careers as a new DoD researcher. "To be awarded a SMART scholarship is a great achievement in itself. To further receive a SMART SEED Grant truly highlights the unique contributions SMART scholars are making to advance the DoD's efforts to maintain scientific and technological superiority," stated Dr. Brandon Cochenour, SMART Program manager...
Navy.mil - Oct 27, 2022

Artificial intelligence and molecule machine join forces to generalize automated chemistry in DARPA/NSF-funded research

...Artificial intelligence, "building-block" chemistry and a molecule-making machine teamed up to find the best general reaction conditions for synthesizing chemicals important to biomedical and materials research – a finding that could speed innovation and drug discovery as well as make complex chemistry automated and accessible. With the machine-generated optimized conditions, researchers at the University of Illinois Urbana-Champaign and collaborators in Poland and Canada doubled the average yield of a special, hard-to-optimize type of reaction linking carbon atoms together in pharmaceutically important molecules. The researchers say their system provides a platform that also could be used to find general conditions for other classes of reactions and solutions for similarly complex problems. Automated synthesis machines for proteins and nucleic acids such as DNA have revolutionized research and chemical manufacturing in those fields, but many chemicals of importance for pharmaceutical, clinical, manufacturing and materials applications are small molecules with complex structures. The team integrated AI with the molecule machine to provide real-time feedback to the machine-learning system. The AI sent instructions to produce representative reactions from each cluster. The information from those reactions fed back into the model; the AI learned from the data and ordered more experiments from the molecule machine. The process identified conditions that doubled the average yield of a challenging class of reactions, called heteroaryl Suzuki-Miyaura coupling, crucial for many biological and materials-relevant compounds. The Defense Advanced Research Projects Agency and the National Science Foundation supported this work.
News Bureau - Oct 28, 2022

Study urges caution when comparing neural networks to the brain

...Neural networks, a type of computing system loosely modeled on the organization of the human brain, form the basis of many artificial intelligence systems for applications such speech recognition, computer vision, and medical image analysis. In the field of neuroscience, researchers often use neural networks to try to model the same kind of tasks that the brain performs, in hopes that the models could suggest new hypotheses regarding how the brain itself performs those tasks. In an analysis of more than 11,000 neural networks that were trained to simulate the function of grid cells — key components of the brain's navigation system — the researchers found that neural networks only produced grid-cell-like activity when they were given very specific constraints that are not found in biological systems. ... The research was funded by the Office of Naval Research and the National Science Foundation.
MIT News - Nov 2, 2022

Robotics / Autonomous Vehicles

NASA's InSight Lander Detects Stunning Meteoroid Impact on Mars

...NASA's InSight lander recorded a magnitude 4 marsquake last Dec. 24, but scientists learned only later the cause of that quake: a meteoroid strike estimated to be one of the biggest seen on Mars since NASA began exploring the cosmos. What's more, the meteoroid excavated boulder-size chunks of ice buried closer to the Martian equator than ever found before – a discovery with implications for NASA's future plans to send astronauts to the Red Planet. With images and seismic data documenting the event, this is believed to be one of the largest craters ever witnessed forming any place in the solar system. New craters expose materials below the surface. In this case, large chunks of ice scattered by the impact were viewed by MRO's High-Resolution Imaging Science Experiment (HiRISE) color camera. InSight is studying the planet's crust, mantle, and core. Seismic waves are key to the mission and have revealed the size, depth, and composition of Mars' inner layers. InSight has seen its power drastically decline in recent months due to dust settling on its solar panels. The spacecraft now is expected to shut down within the next six weeks, bringing the mission's science to an end...
National Aeronautics and Space Administration - Oct 27, 2022

NASA and ESA Agree on Next Steps to Return Mars Samples to Earth

...NASA's next step in the unprecedented campaign to return scientifically selected samples from Mars was to complete a formal agreement between NASA and its partner ESA (European Space Agency) for the creation of a sample tube depot on Mars. The samples that can help tell the story of Jezero Crater's history and how Mars evolved, and could perhaps even contain signs of ancient life. The Perseverance rover will be the primary means to convey the collected samples to the Mars launch vehicle. The Three Forks

depot will serve as a backup, hosting the duplicate set. Since Perseverance landed at Jezero Crater on Feb. 18, 2021, the rover has collected 14 rock-core samples during its first two science campaigns...
National Aeronautics and Space Administration - Oct 28, 2022

Quantum

Kennesaw State professor receives NSF grant to research quantum technologies
...Tu Nguyen, and his research team received a competitive grant from the National Science Foundation (NSF) to develop the first comprehensive framework for a new way of computing and networking. They will use the more than $600,000 in NSF funding to work on quantum-era computing and networking systems. Nguyen's latest project, titled "Rethinking State Estimation for Power Distribution Systems in the Quantum Era," will begin in January 2023 and run for at least three years...
Kennesaw State University - Oct 27, 2022

Cybersecurity / Privacy

See Yourself in Cyber
...Your company is too small to be targeted for a cyberattack, right? That's what Cincinnati Crane and Hoist (CCH) thought too. Like many small and medium-sized manufacturers (SMMs), it was busy with other things in its business and didn't see itself as worthy of a cybercriminal's time. Wrong. CCH learned the hard way – it suffered a cyberattack that forced it to lay off employees. Between its customers and suppliers, this single breach affected at least 100 other companies. When the spear phishing attack happened, CCH President and CEO Tony Strobl said he and his leadership team really didn't know what to do. Fortunately, they already had a great relationship with their local MEP Center, TechSolve. TechSolve helped CCH survive the cyberattack and move forward. SMMs are often less prepared for a cyberattack than larger companies. Their information may not be well protected, their employees not aware of potential risks. Vulnerabilities increase and cyberattacks become more costly as manufacturers adopt new technologies. The good news is that SMMs often have less complex operational needs than larger firms and may be able to quickly take basic measures to defend their information and systems. Start with the Manufacturers Guide to Cybersecurity for Small and Medium-Sized Manufacturers for easy steps to quickly and cost effectively address cybersecurity risk. This guide is based on the Cybersecurity Framework and generally accepted cyber hygiene best practices. It is broken down into five steps: identify, protect, detect, respond and recover. It also has some basic practices you and your employees can take immediately to protect your data...
National Institute of Standards and Technology - Oct 28, 2022

Democratizing science through advanced cyberinfrastructure
...Enormous data sets are shaping nearly every field of science, and sophisticated sensors and high-speed processors are essential to collecting, analyzing and deriving knowledge from Big Data. That means access to many fields of science depends in large part on access to data and data tools. But access is not universal, often limited by a multitude of technical, cultural and geographic barriers. "If you want to democratize science in the 21st century," said Manish Parashar, director of the U.S. National Science Foundation's Office of Advanced Cyberinfrastructure, or OAC, "we need to make sure that we address equity." Advanced cyberinfrastructure is an expansive ecosystem. It includes hardware, software, the user, issues like security, connections to instrumentation and large-scale research infrastructure, and expertise. We want these elements to converge in a robust, scalable and agile manner in order to enable discoveries and innovations across all of science and engineering...
National Science Foundation - Nov 1, 2022

DHS Announces New Cybersecurity Performance Goals for Critical Infrastructure
...the Department of Homeland Security released the Cybersecurity Performance Goals (CPGs), voluntary practices that outline the highest-priority baseline measures businesses and critical infrastructure owners of all sizes can take to protect themselves against cyber threats. The CPGs were developed by DHS, through the Cybersecurity and Infrastructure Security Agency (CISA), at the direction of the White House. Over the past year, CISA worked with hundreds of public and private sector partners and analyzed years of data to identify the key challenges that leave our nation at unacceptable risk. By clearly outlining measurable goals based on easily understandable criteria such as cost, complexity, and impact, the CPGs were designed to be applicable to organizations of all sizes. This effort is part of the Biden-Harris Administration's ongoing work to ensure the security of the critical infrastructure and reduce our escalating national cyber risk...
Homeland Security - Oct 27, 2022

Multiple data breaches suggest ed tech company Chegg didn't do its homework, alleges FTC

...Chegg, Inc. sells educational products and services directly to high school and college students. That includes renting textbooks, guiding customers in their search for scholarships, and offering online tutoring. But according to the FTC, the ed tech company's lax security practices resulted in four separate data breaches in a span of just a few years, leading to the misappropriation of personal information about approximately 40 million consumers. A key component of Chegg's information technology infrastructure was Simple Storage Service (S3), a cloud storage service offered by Amazon Web Services (AWS) that Chegg used to store a substantial amount of customer and employee data. FTC cites a number of examples of what Chegg did – and didn't do – that were indicative of the company's lax security practices. What can other companies learn from the lessons of Chegg?...
Federal Trade Commission - Oct 31, 2022

5G, Wireless Spectrum, Networking & Communications

NASA's Small Satellite "Lunar Flashlight" Is Ready to Search for the Moon's Water Ice

...It's known that water ice exists below the lunar regolith, but scientists don't yet understand whether surface ice frost covers the floors inside these cold craters. NASA is sending Lunar Flashlight, a small satellite (SmallSat), which will use lasers to search for water ice inside the darkest craters at the Moon's South Pole. Swooping low over the lunar South Pole, it will use lasers to shed light on these dark craters – much like a prospector looking for hidden treasure by shining a flashlight into a cave. After launch, mission navigators will guide the spacecraft way past the Moon. It will then be slowly pulled back by gravity from Earth and the Sun before it settles into a wide, looping, science-gathering orbit. This near-rectilinear halo orbit will take it 42,000 miles (70,000 kilometers) from the Moon at its most distant point and, at its closest approach, the satellite will graze the surface of the Moon, coming within 9 miles (15 kilometers) above the lunar South Pole. A near-rectilinear halo orbit requires far less fuel than traditional orbits, and Lunar Flashlight will be only the second NASA mission to use this type of trajectory. The first is NASA's Cislunar Autonomous Positioning System Technology Operations and Navigation Experiment (CAPSTONE) mission, which will arrive at its orbit on Nov. 13, making its closest pass over the Moon's North Pole...
National Aeronautics and Space Administration - Oct 28, 2022

NGA, ICEYE to explore use of commercial SAR data for polar regions, sensing natural hazards

...The National Geospatial-Intelligence Agency has signed a five-year cooperative research and development agreement (CRADA) with ICEYE, a commercial imagery provider of persistent synthetic aperture radar data. NGA and ICEYE will conduct experiments to explore commercial synthetic aperture radar (SAR) satellite imaging modes and provide new knowledge and insights for missions such as safety of navigation, international security, climate security and protection of natural resources. NGA's research interests lie in remote sensing of polar regions and sensing natural hazards worldwide. The collaborative research will include subsidence time-series mapping, automated monitoring, coherent change detection and bathymetric retrieval to produce new information for iceberg detection and tracking, mapping of complex environmental conditions such as deforestation or permafrost thaw and border security. This CRADA will allow NGA to access a large constellation of commercial satellites, enabling R&D collaboration and dynamic SAR tasking for persistent monitoring to support critical NGA missions...
National Geospatial-Intelligence Agency - Nov 2, 2022

The story of the Manned Orbiting Laboratory. p1

...The Manned Orbiting Laboratory (MOL) was as ambitious as it was secret, made to push the limits of what was possible in space at the time. MOL was designed to test new abilities and fulfill a top-secret reconnaissance mission of providing rapid response intelligence collection. Programs such as the U-2 provided excellent aerial imagery, but the United States required a better alternative due to the high risk of aircraft getting shot down. Early satellites like Corona were still in their infancy and not yet able to meet rapid intelligence collection demands. By launching a manned surveillance satellite into orbit, MOL sought to mitigate problems surrounding the technology at the time...
National Reconnaissance Office (NRO) - Nov 3, 2022

Biden-Harris Administration Provides $759 Million to Bring High-Speed Internet Access to Communities Across Rural America

...U.S. Department of Agriculture (USDA) Secretary Tom Vilsack today announced that the Department is providing $759 million to bring high-speed internet access to people living and working across 24 states, Puerto Rico, Guam and Palau. The $759 million in loans and grants comes from the third funding round of the ReConnect Program. In 2022, the Department has announced $1.6 billion from the third round of ReConnect funding...
USDA APHIS - Oct 27, 2022

Satellite data creates high-res maps of entire polar regions provide new clues for climate researchers

...A team of researchers led by the University of Minnesota has released four more years of high-resolution imagery data, which has been added to eight years of previous data, to create the most detailed polar region terrain maps ever created. The maps use high-resolution satellite data to show the polar regions in stunning detail. The project began with images taken from a constellation of polar-orbiting satellites about 400-700 kilometers above the Earth. The researchers at the Polar Geospatial Center created the digital elevation models based on 50-centimeter resolution images captured by the commercial satellites owned by Maxar and licensed by the National Geospatial-Intelligence Agency. Partners at The Ohio State University and Ohio Supercomputer Center developed the software to process the images and U of M researchers put the maps together with computing resources from the University of Illinois Urbana-Champaign that provided the Blue Waters supercomputer. The researchers processed millions of images to create the high-resolution topographic maps. Using these digital elevation models, scientists can see detailed topography of the land, including individual trees, lakes, roads and buildings. The Polar Geospatial Center is a polar science and logistics support organization at the University of Minnesota with core funding provided by the National Science Foundation's Office of Polar Programs...
University of Minnesota Twin Cities - Oct 31, 2022

New satellite analyses find plant processes may be key to predicting drought development
...Based on new analyses of satellite data, scientists have found that hydrologic conditions that increase flash drought risk occur more often than current models predict. Stanford University researchers have revealed how a closer look at plants' inner workings may be able to help improve model predictions of some devastating global disasters. Water undergoing evapotranspiration is sometimes considered "lost" to the atmosphere, so accurate calculations of this loss can be critical to understanding impacts on water resources and ecosystems. By analyzing satellite data of both precipitation and moisture belowground, researchers calculated changes in evapotranspiration during droughts that occurred globally from 2003 to 2020. Current Earth system models show increases in evapotranspiration, in which stomata (tiny pores in leaves) are more open, occurring about 25% of the time during droughts. Yet according to the researchers' new estimate, it occurs about 45% of the time. Researchers combined observations of water storage from the Gravity Recovery and Climate Experiment (GRACE) satellites with precipitation data from the Global Precipitation Climatology Project to calculate evapotranspiration measurements across the globe. The authors found that dry soils are a key control. They further found that current models don't account for roots' effect on how water travels through soils. This caused errors in the model simulations of soil dryness and, as a result of that, evapotranspiration. ... The research was supported by a NASA Terrestrial Ecology award through the New Investigator Program and by a NASA MAP program award.
Stanford News - Oct 27, 2022

Advanced Manufacturing

Readout: White House, Treasury, and State Officials Discuss American Rescue Plan Investments in Manufacturing Through the State Small Business Credit Initiative
...Officials from the White House, Treasury Department, Arizona, Michigan, and Minnesota met with stakeholders to discuss key investments from the American Rescue Plan's (ARP) State Small Business Credit Initiative (SSBCI), which are expected to result in billions of dollars of financing to small businesses involved in manufacturing and critical supply chain initiatives. SSBCI is expected to catalyze up to $10 of private investment for every $1 of capital funding, meaning that investments powered by SSBCI will result in billions of dollars of public and private financing to small manufacturers, along with key investments in several other sectors of national priority. At the meeting, state officials from Arizona, Michigan, and Minnesota laid out details on how their states' SSBCI-funded initiatives are supporting investments in manufacturing...
The White House - Oct 28, 2022

DOE Announces $39 Million for Technology to Grow the Domestic Critical Minerals Supply Chain and Strengthen National Security
...The U.S. Department of Energy (DOE) today announced $39 million in funding for 16 projects across 12 states to develop market-ready technologies that will increase domestic supplies of critical elements required for the clean energy transition. The Biden-Harris Administration has remained focused on strengthening the critical materials supply chain as rare-earth elements are necessary to manufacture several clean energy technologies—from electric vehicle batteries to wind turbines and solar panels. Global demand for critical minerals needed to decarbonize the nation's economy is expected to increase by 400-600% over the next several decades and the U.S. is increasingly dependent on foreign sources, some adversarial, for many of the processed versions of these minerals. Selected projects will be funded and managed through DOE's Advanced Research Projects Agency-Energy (ARPA-E) Mining Innovations for Negative Emissions Resource Recovery (MINER) program. The MINER program funds technology research that increases the mineral yield while decreasing the required energy, and subsequent emissions, to mine and extract energy-relevant minerals. Specifically, the program investigates the potential CO_2-reactive ores to unlock net-zero or net-negative emission technologies...
Department of Energy - Oct 27, 2022

Microelectronics

A Proclamation on National Entrepreneurship Month, 2022
...During National Entrepreneurship Month, we celebrate the doers, dreamers, and job creators whose vision and grit fuel our economy and capture the essence of America. Our Bipartisan Infrastructure Law is rebuilding America's roads, bridges, railways, and ports so businesses can get goods to consumers quickly and affordably. It is bringing high-speed broadband to small towns and rural areas so Americans anywhere can run a business online. Our CHIPS and Science Act is making historic investments in semiconductor companies that produce the tiny computer chips that power everything from smartphones to cars — benefitting thousands of smaller businesses along the supply chain...
The White House - Oct 31, 2022

Manufacturing USA Semiconductor Institutes RFI
...The National Institute of Standards and Technology (NIST) is seeking public input to inform the design of, and requirements for, potential Manufacturing USA institutes to strengthen the semiconductor and microelectronics innovation ecosystem, which could include design, fabrication, advanced test, assembly, and packaging capability. These Manufacturing USA institutes are envisioned to support efforts in research and development as well as education and workforce development. Comments must be received by 11:59 p.m. Eastern time November 28, 2022.
Federal Register - Oct 13, 2022

NSF announces $10 million partnership with Micron to support semiconductor design and manufacturing workforce development
...The U.S. National Science Foundation today announced a cross-sector partnership with Micron Technology, Inc. to develop bold, potentially transformative solutions to address semiconductor manufacturing challenges and workforce shortages. NSF and Micron will each invest $5 million in support of research, education, infrastructure capacity building, and workforce development for semiconductor design and manufacturing. Through this partnership, NSF and Micron will jointly fund the development of rigorous and engaging instructional material, teacher professional development, and experiential opportunities for students to improve education at the nation's institutions of higher education, spanning two-year colleges and four-year universities and including minority-serving institutions, to ultimately advance semiconductor design and manufacturing. Projects funded through this agreement will focus on semiconductor industry research, education, infrastructure capacity building, and/or workforce development for high-technology fields that are critical to future semiconductor design and manufacturing...
National Science Foundation - Oct 28, 2022

Climate Change / Green Energy & IT

Biden-Harris Administration Advances Ocean Science and Technology through Partnerships
...Sustainable management of ocean waters, and addressing the climate crisis through ocean-based solutions depend on sound science and strong partnerships inside and outside of government. The Biden-Harris Administration celebrated the keel-laying of a new vessel, and announced new priorities for ocean exploration and observing, novel findings about acidification of the ocean, and pioneering partnership opportunities. These cross-agency and public-private partnerships emphasize the Biden-Harris Administration's focus on the central role of the ocean in our lives. The U.S. Ocean Policy Committee, led by the White House Office of Science and Technology Policy, released the report Strategic Priorities for Ocean Exploration and Characterization of the United States Exclusive Economic Zone, outlining federal priorities for ocean exploration. This report, led by the Ocean Policy Committee's National Ocean Mapping, Exploration, and Characterization Council, identifies high-priority focal areas and geographies that will advance forecasting of seafloor hazards. The Interagency Working Group on Ocean Acidification of the National Science and Technology Council's Subcommittee on Ocean Science and Technology released their Sixth Report on Federally Funded Ocean Acidification Research and Monitoring Activities. This work included projects to advance observations and modeling of ocean carbon, test new technology developments, such as autonomous platforms and novel sensors, to studying potential socioeconomic impacts of ocean acidification, and conducting public education and outreach. The National Oceanographic Partnership Program's one major new effort is Predicting Hurricane Coastal Impacts, for which over $12 million will fund a suite of projects focused on modeling, sensing, measuring, and forecasting coastal impacts of hurricanes, information that is critical to preparedness and response...
The White House - Oct 28, 2022

FACT SHEET: U.S.-UAE Partnership to Accelerate Transition to Clean Energy (PACE)
...The United States and the United Arab Emirates signed a major new clean energy framework. President Biden again demonstrated his deep commitment to ensuring a global clean energy future and long-term energy security as the United States and United Arab Emirates announced a robust partnership to ensure the swift and smooth transition

toward clean energy and away from unabated fossil fuels. The U.S.-UAE Partnership for Accelerating Clean Energy (PACE) is set to catalyze $100 billion in financing, investment, and other support and to deploy globally 100 gigawatts of clean energy by 2035 to advance the energy transition and maximize climate benefits. PACE's ambitious plan is built upon four pillars: 1) Clean Energy Innovation, Deployment and Supply Chains, 2) Carbon and Methane Management, 3) Nuclear Energy, and 4) Industrial and Transport Decarbonization...
The White House - Nov 1, 2022

What will it cost to cut the carbon footprint of cars sold in the U.S?

...U.S. DRIVE, which stands for United States Driving Research and Innovation for Vehicle Efficiency and Energy Sustainability, is a voluntary government-industry partnership that includes DOE and multiple automotive, energy and utility companies. In a new assessment led by DOE's Argonne National Laboratory, U.S. DRIVE estimated the costs and greenhouse gas emissions for vehicles over their entire life cycle, both with current (2020) and potential future (2030-2035) technologies. U.S. DRIVE's cradle-to-grave (C2G) analysis looked at the costs and greenhouse gas emissions of several vehicle and fuel technology options over the vehicles' life cycles. This included resource extraction ("cradle"), transformation of those resources into fuels and vehicles, fuel use while on the road, and recycling the vehicle at the end of its journey ("grave"). The analysis also included an assessment of the cost of each vehicle per mile driven and the cost of avoided greenhouse gas emissions. They assessed vehicle and fuel combinations including internal combustion engines with conventional and biofuels, hybrid and plug-in hybrid electric vehicles, battery electric vehicles with varying vehicle ranges, and hydrogen fuel cell vehicles. The U.S. DRIVE team used Argonne's Greenhouse gases, Regulated Emissions, and Energy use in Technologies (GREET®) model to quantify greenhouse gas emissions from both the fuel and vehicle production life cycles...
Argonne National Laboratory - Oct 27, 2022

Machine learning facilitates "turbulence tracking" in fusion reactors

...Fusion, which promises practically unlimited, carbon-free energy using the same processes that power the sun, is at the heart of a worldwide research effort that could help mitigate climate change. A multidisciplinary team of researchers is now bringing tools and insights from machine learning to aid this effort. The researchers built a synthetic video dataset of plasma turbulence to make this process more effective and efficient. They used it to train four computer vision models, each of which identifies and tracks blobs. They trained the models to pinpoint blobs in the same ways that humans would. When the researchers tested the trained models using real video clips, the models could identify blobs with high accuracy — more than 80 percent in some cases. The models were also able to effectively estimate the size of blobs and the speeds at which they moved. ... One goal of this work is to encourage participation in fusion research from the broader machine-learning community toward the broader goal of helping solve the critical problem of climate change. This research is supported, in part, by the U.S. Department of Energy.
MIT News - Nov 1, 2022

Digital Health

OSTP, in Partnership with ONC, Seeks Input on Optimizing Data Capture for Clinical Trials

...The COVID-19 pandemic demonstrated the need for a coordinated clinical trials enterprise, one that can swiftly characterize emerging viral threats and evaluate the effectiveness of vaccines, therapeutics, and other countermeasures across a diversity of trial participants. In response, the Biden-Harris Administration released the National Biodefense Strategy, which calls for a U.S. clinical trials infrastructure "ready to administer candidate countermeasures to participants within 14 days after the identification of a viable countermeasure." In support of this effort, the White House Office of Science & Technology Policy (OSTP), in coordination with the National Security Council, issued a Request for Information (RFI) on October 26 seeking input from the public about how a coordinated clinical research system can be deployed in the event of an emerging disease outbreak. This RFI was prepared in partnership with the Office of the National Coordinator for Health Information Technology (ONC) and is entitled "Data Collection for Emergency Clinical Trials and Interoperability Pilot."...
The White House - Oct 31, 2022

New machine-learning simulations reduce energy need for mask fabrics, other materials

...There is a new computational effort being pioneered by the U.S. Department of Energy's (DOE) Argonne National Laboratory in conjunction with 3M and supported by the DOE'S High Performance Computing for Energy Innovation (HPC4EI) program. Researchers are finding new ways to dramatically reduce the amount of energy required for melt blowing the materials needed in N95 masks and other applications. Currently, the process used to create a nozzle to spin nonwoven materials produces a very high-quality product, but it is quite energy intensive. By using Argonne supercomputing resources to pair computational fluid dynamics simulations and machine-learning techniques, the Argonne and 3M collaboration sought to reduce energy consumption by 20% without compromising material quality. The simulations provide key insights into the process, a method to assess a combination of parameters that are used to generate data for the machine-learning algorithm. The machine-learning model can then be leveraged to ultimately converge on a design that can deliver the required energy savings...

Argonne National Laboratory - Nov 1, 2022

With $7M grant from NIH, UCLA scientists to study if brain stimulation during sleep can bolster memory
...Sleep plays an important role in how the brain consolidates short-term memories from the previous day into enduring ones. But exactly how that process occurs remains a mystery. A new study led by UCLA scientists will aim to identify the electrical activity that occurs as the brain receives information and then test whether targeted, gentle electrical stimulation to the brain can strengthen a specific memory when that information is processed later. The study could advance how scientists understand and enhance the neural mechanisms involved in memory formation. That information could be critical at a time when the world's aging population is poised to intensify the already stark toll of memory disorders. The study is funded by a five-year, $7 million grant from the National Institutes of Health. AI software will monitor people's brain activity as they watch a video, with the goal of identifying patterns in how neurons respond to certain events, characters or emotions on the screen. Then, while the study participants are sleeping, the software will scan for electrical signatures to determine when the brain is replaying that memory, at which point The team will administer targeted electrical stimulation aimed at solidifying that memory. The study also is a valuable opportunity to improve artificial intelligence's ability to "think" more like the human brain...
UCLA Newsroom - Oct 27, 2022

Researchers create new model to detect COVID's effects using chest X-rays
...Two-dimensional (2D) scans can't distinguish compromised lung function. For that diagnosis, a more expensive, three-dimensional (3D) technique called a CT scan is necessary. Researchers at the University of Iowa have developed what is called a contrastive learning model. This model "learns" from composite 2D images constructed from 3D CT images to detect compromised lung function in long-COVID patients. Another technique, called transfer learning, then conveys lung diagnostic information from a CT scan to a chest X-ray, thus allowing chest X-ray equipment to detect abnormalities the same as if those patients had used a CT scan. The researchers based their modeling on CT scans of 100 people who were infected with the original COVID strain and went to UI Hospitals & Clinics for diagnosis for breathing problems. ... The National Heart, Lung, and Blood Institute, a branch of the U.S. National Institutes of Health; and the U.S. Department of Education funded the research.
Iowa Now - Nov 1, 2022

Other IT Related

A Proclamation on Critical Infrastructure Security and Resilience Month, 2022
...When powerful storms and forest fires — made more frequent and ferocious by climate change — shut down energy grids, families can lose power for weeks. When unsecure networks are hacked, critical services can go offline, and businesses can suffer huge losses. That is why my Administration is reinforcing America's critical infrastructure and supporting our international partners as they do the same. We are shielding our entire country against — and actively countering — malicious cyber activity, and establishing clear international rules of the road as they relate to cyberspace. Our Federal agencies are working more closely with the private sector — which owns and operates most of America's critical infrastructure — to defend against cyberattacks. I have reinvigorated the National Infrastructure Advisory Council to advise on how to reduce physical and cyber risks and improve the security and resilience of our Nation's critical infrastructure sectors. Our efforts to bolster critical infrastructure extend beyond our own borders as well. Through programs like the Partnership for Global Infrastructure and Investment, the Digital Invest Program from the United States Agency for International Development, and the President's Emergency Plan for Adaptation and Resilience, the United States is helping pay for game-changing infrastructure projects in developing countries, strengthening the global economy and international supply chains...
The White House - Oct 31, 2022

President's Council of Advisors on Science and Technology (PCAST) Meeting: Nov 9th
...PCAST is an advisory group of the nation's leading scientists and engineers, appointed by the President to augment the science and technology advice available to him from the White House, cabinet departments, and other Federal agencies. The afternoon topic is: Introduction of Cyber Resilience Topic. The PCAST meeting is Wednesday, November 9, 2022; 11:15 a.m.-4:10 p.m.
Federal Register - Oct 18, 2022

NSF-powered dashboards you should bookmark
...Data, like oil, requires refining, processing, and — so people can use it — an interface or dashboard. Data dashboards are visual means to communicate the key information provided by data in an easy-to-consume method the public can access. The National Center for Science and Engineering Statistics, part of the U.S. National Science Foundation, also creates dashboards like the Science & Engineering State Indicators, which compile information on the U.S. STEM enterprise. Researchers at the University of South Florida created the Global Mosquito Observations Dashboard to monitor mosquito-borne diseases. The dashboard aggregates data from other apps that rely on citizen

scientists capturing photos of mosquitoes. The Alien Forest Pest Explorer combines information from multiple sources to show the impact of different forest insects and diseases — and the potential for further damage. The dashboards, also supported by the U.S. Forest Service, overlay pest data with related data about the status and health of the host tree species in forests and has resolution down to the county level. The U.S. Energy History Visualization project was driven by the idea that understanding past U.S. energy transitions can help guide future decisions and transform the world's approach to energy. The dashboard, known as a Sankey diagram, uses line widths to represent per capita energy flows each year from primary energy sources to final uses covering 200 years of evolving energy use in the U.S. The project is intended to provide a deeper understanding about the potential future of society and the Earth and help policymakers make informed decisions. The Sitka Sound Science Center spearheaded the effort to give residents information about the risks of a landslide in the area up to three days into the future. The Sitka Landslide Risk dashboard also provides recommendations on how to evaluate the information and what you should do if you decide to leave your home. Researchers from institutions around the world stitched together nearly 1.5 million location records from research publications, online databases, museums and scientific field work to create Antmaps.org, the largest global map of insect diversity...
National Science Foundation - Nov 3, 2022

DoD Announces U.S. Representative to NATO DIANA Board of Directors

...The Department of Defense announced today that Ms. Barbara McQuiston, the Deputy Chief Technology Officer for Science and Technology in the Office of the Under Secretary of Defense for Research and Engineering, will serve as the United States' representative to the Board of Directors of NATO's Defence Innovation Accelerator for the North Atlantic, or DIANA. Modeled after the Defense Advanced Research Projects Agency, DIANA connects defense personnel from across the alliance with the best and brightest scientists, researchers, start-ups, and technology companies to solve critical defense and security challenges. Innovators participating in DIANA's programs will receive access to its network of dozens of accelerator sites and test centers across more than twenty allied nations. As Deputy CTO for S&T, McQuiston oversaw the Under Secretary's S&T portfolio, including workforce development, the relationship with Federally Funded Research and Development Centers and University Affiliated Research Centers, technology program protection, international outreach, basic research, industrial innovation, and a number of emerging technologies. During her tenure, McQuiston's office provided $135 million in scholarships, grants, and fellowships to faculty and students researching national security-relevant fields and invested $7 million to enhance the capabilities of DoD laboratories. She also supported DoD outreach to Historically Black Colleges and Universities and other Minority Serving Institutions through funding, internships, and by establishing new Centers of Excellence designed to deliver critical research and enhance minority education opportunities...
U.S. Department of Defense - Oct 27, 2022

UCF Researcher Receives NASA Award to Develop Revolutionary Rocket Engine Technology

...A University of Central Florida researcher has received NASA funding to further develop a novel rocket engine system that could revolutionize space travel. The project focuses on rotating detonation rocket engines (RDREs), which are powered by continuous Mach 5 explosions that rotate around the inside of the engine and are sustained by hydrogen and oxygen propellants fed into the system in certain amounts. NASA recently awarded $50,000 to fund the project. RL10 engine variants are used in many launchers such as the Atlas V, Vulcan, and Orbital ATK OmegA. RDREs could also be used for commercial purposes, facilitating new markets such as widespread satellite-based high-speed internet services due to reduced launch costs. Multiple federal agencies such as NASA, the Department of Defense, the National Reconnaissance Office, and the National Oceanic and Atmospheric Administration depend on satellites for their basic functions...
UCF Today - Oct 26, 2022

STEM / Workforce & IT

FACT SHEET: President Biden Celebrates New Commitments toward Equitable Workforce Development for Infrastructure Jobs

...The Infrastructure Talent Pipeline Challenge, launched by the Biden-Harris Administration in June, is a nationwide call to action for employers, unions, education and training providers, states, local governments, Tribes, territories, philanthropic organizations, and other stakeholders to make tangible commitments that support equitable workforce development focused on three critical sectors: broadband, construction, and electrification. Commitments made through the Challenge will expand equitable pathways into good jobs, boost opportunities for union jobs, and meet critical employer skill needs. The Biden-Harris Administration will release a new guide, Advancing Equitable Workforce Development for Infrastructure Jobs, to help infrastructure and workforce development stakeholders leverage funding provided in the Bipartisan Infrastructure Law and other federal programs for equitable workforce development for infrastructure jobs. The Department of Commerce (DOC) released its Internet for All Workforce Planning Guide, which helps states and territories develop a workforce plan as required by the $42.5 billion Broadband Equity, Access, and Deployment (BEAD) program...
The White House - Nov 2, 2022

Readout of Office of Science and Technology Policy STEMM Equity Forums

...On Thursday October 27, the White House Office of Science and Technology Policy (OSTP), in collaboration with the American Association of Colleges and Universities, the Association of Science and Technology Centers, and the Kapor Center, virtually convened leaders across multiple sectors, who are working to advance equity and broaden

participation in science, technology, engineering, mathematics and medicine (STEMM). These engagements built on the year-long activities of the Time is Now: Advancing Equity in Science and Technology initiative, including a five-part roundtable series of candid and robust conversations with researchers, thought leaders, and advocates on themes related to STEM equity; a national ideation challenge; field visits to successful organizations and programs; and ongoing discussions with learners, teachers, scientists and technologists, community scientists, experts in elementary and higher education, and policymakers. During last Thursday's Forums, OSTP officials shared preliminary takeaways from the Time is Now, highlighting key barriers and opportunities for achieving equity in STEMM that were surfaced during conversations with the American public...
The White House - Nov 2, 2022

A Story of Student-Run Manufacturing Enterprises

...Northwest Industrial Resource Center (NWIRC), one of the Centers that make up the Pennsylvania Manufacturing Extension Partnership, is helping launch student-run enterprises throughout northwest and north-central Pennsylvania. These enterprises are connecting industry with high schools and career and technical centers for very real and purposeful work, enabling students to develop relationships with manufacturing leaders, and in some cases addressing capacity issues for these local companies. While no student-run enterprise is the same, the common thread is putting the information students learn in coursework to practical use. The students run all aspects of a manufacturing business, including production, machining, quality, engineering and design, sales and quoting, accounting, shipping and receiving, and marketing. They collaborate with local manufacturers to explore opportunities for production or services they can provide, quote the work, produce actual parts, invoice for the job, and everything else in between. The student-run enterprise becomes a valued part of the supply chain for their new customers. Four schools were recognized on the state level with funding to get their student-run enterprises off the ground...
National Institute of Standards and Technology - Oct 31, 2022

AFRL STEM unit receives DOD STARBASE's highest level award

...Department of Defense STARBASE NM program, managed through the AFRL STEM Academy, Kirtland Air Force Base, New Mexico, received accolades and certification to the highest level, for its work with fifth graders in science, technology, engineering and math, or STEM. The National DOD STARBASE Program, managed by the Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs, inspects individual programs for class size, the number of topics presented per classroom, financial accountability, equipment, program management, personnel, outreach requirements and management of volunteers, as well as conducts interviews with staff, students, teachers and principals...
Eglin Air Force Base - Oct 26, 2022

From extracting DNA to networking: Students consider STEM careers at Argonne's Hispanic/Latino Education Outreach Day

...They were among 37 students from the Little Village Lawndale High School Campus in Chicago, who saw firsthand how scientists and related professionals — many of Hispanic/Latino heritage — perform pivotal research and other work during the 17th annual Hispanic/Latino Education Outreach Day (HEOD) at the U.S. Department of Energy's Argonne National Laboratory. For nearly two decades, Argonne and one of its employee resource groups — the Argonne Hispanic/Latino Club, or AHLC ERG — have partnered with local schools in underserved populations to promote careers in science, technology, engineering and mathematics (STEM). At the forefront of this effort is the annual HEOD event that gives freshmen and sophomores a firsthand look inside one of the nation's premier labs and helps them to envision new career opportunities. Jacari Williams said this first visit inside a national laboratory was "very informative." "The supercomputers were cool and showed how things were made," Williams said, who plans to major in engineering or computer sciences in college...
Argonne National Laboratory - Oct 27, 2022

New NSF-Funded Scholarship Initiative To Help Ease STEM Path for Students

...A new University of Texas at Dallas initiative will provide financial and academic support to transfer students from low-income backgrounds who want to become engineers and computer scientists. UT Dallas received $1.5 million from the National Science Foundation (NSF) Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) program for the project, Improving Transfer Academic, Career and Community Engagement for Student Success (IT ACCESS) in Engineering and Computer Science. S-STEM removes barriers that many students face to enter the STEM workforce or graduate programs. The project also aims to improve the sense of belonging and professional identity of the scholars, which begins with changing perspectives on who can become an engineer or computer scientist...
The University of Texas at Dallas - Oct 28, 2022

STEM / Workforce Resources & Opportunities

Biden-Harris Administration Announces the Application Period for Summer Session of the White House Internship Program

...The application period for the Summer session of the White House Internship Program opened on Monday, November 1st. The session will begin in June 2023. The White House Internship Program is a public service leadership and development program that provides emerging leaders with an opportunity to gain valuable skills while supporting the work of the White House and furthering the priorities of the Biden-Harris Administration. This program provides paid internships across the Executive Office of the President. Interns participating in the White House Internship Program will support the White House Office and the Office of the Vice President. The application period for the Summer 2023 session opened on Monday, November 1st and will close on Monday, November 28th.
The White House - Nov 2, 2022

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 - Oct 18, 2022

AI Researchers Portal
...Our Nation's AI innovation begins with the inspirational ideas of researchers from all across the country. To make it easier for researchers to locate and explore the many Federal resources and funding programs available to support and investigate novel ideas in AI, the National AI Initiative Office, in partnership with Federal departments and agencies and the Networking and Information Technology Research and Development coordination office, established an AI Researchers Portal. This portal connects AI researchers to Federal resources that can support their research, including data, computing, and testbeds, as well as AI-relevant grant funding programs. It also provides searchable repositories of approximately 140 current Federal grant programs relevant to AI, and around 40 Federally-funded testbed resources, in addition to a wide variety of data and computing resources useful for AI research...
National Artificial Intelligence Initiative - Nov 1, 2022

Upcoming Conferences / Workshops / Webinars

FORENSICS@NIST 2022: November 8 - 15
...Join us virtually on Tuesday November 8th - Thursday November 10th, 2022 to learn how NIST scientists are using advanced methods in metrology, computer science and statistics to strengthen forensic science. Topic Areas to be covered: Drugs/Toxins, Statistical Methods in Forensic Science, Firearms and Tool Marks, Forensic Genetics, Trace Digital and Multimedia, and Biometrics. Attendees will receive the link to join the virtual event on November 7, 2022.
National Institute of Standards and Technology - Oct 31, 2022

NICE Webinar: Using Registered Apprenticeships to Source Mid-Career Roles in Cybersecurity: Nov 14th
...Many of us consider Registered Apprenticeship as a method to help prepare talent to enter a career with no previous experience. It's remarkable to learn that they are a training model appropriate to use at any stage in a career pathway. A mid-career Registered Apprenticeship program can help leverage an employee's existing knowledge and lived experiences while they gain new skills or a transition into a new field of work. This webinar, held during National Apprenticeship Week, will feature employers who are using Registered Apprenticeships to address hard-to-find skill needs and help employees advance in their careers. November 14, 2022 2:00 - 3:00pm EST
National Institute of Standards and Technology - Oct 18, 2022

International Face Performance Conference (IFPC) 2022: Nov 15-17
...IFPC 2022 is focused on all technical factors affecting the deployment and use of high performance face recognition applications, including applications, standards, quality assessment, human aspects, demographic effects, age and ageing effects, presentation attack detection, morphing, datasets, their preparation, training and tuning, non-cooperative uses, accuracy measurement, and performance tests. With support from the Department of Homeland Security's Science and Technology Directorate, the conference aims to assemble a set of speakers from across the globe involved in face recognition development, procurement, deployment, and operations. The IFPC 2022 is hosted by NIST in collaboration with the Department of Homeland Security's Science and Technology Directorate (DHS S&T) and European Association for Biometrics (EAB). After registration, a link to access the conference will be sent in a separate email a few days before the conference starts. November 15-17, 2022.
National Institute of Standards and Technology - Nov 1, 2022

Manufacturing USA Semiconductor Institute Request for Information (RFI) Webinar: Nov 16th
...The National Institute of Standards and Technology (NIST) is seeking public input on the development of up to three new Manufacturing USA institutes focused on semiconductor manufacturing. The institutes, authorized by the recently passed Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Act, will enhance U.S. leadership in semiconductor manufacturing through advanced research, education, and workforce development. To hear more about this RFI, please also join the webinar on November 16, 2022 2:00 PM - 3:00 PM ET
National Institute of Standards and Technology - Oct 27, 2022

PSCR Webinar: The History & Future of the PSCR Drone Program: Nov 17th
...NIST's Public Safety Communications Research (PSCR) Division will host a webinar featuring the PSCR uncrewed aircraft system (UAS), aka drone, prize challenge program. During this webinar, UAS Prize Challenge Manager Terese Manley will be joined by IT Security Specialist Don Harriss to discuss the history and impacts of the drone program to date. Additionally, the team will provide updates on the current UAS Indoor Challenge and discuss the future of the PSCR drone program. November 17, 2022 11:00am - 12:00pm MST (1:00 - 2:00pm EST)
National Institute of Standards and Technology - Nov 1, 2022

Innovation Through NITRD Coordination