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

NITRD News Brief

Beginning this week, the NITRD News Brief will be distributed biweekly. We look forward to sharing a new innovative newsletter format with you soon. If you have any questions, please email us at nco@nitrd.gov.

NITRD's News Brief 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 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!

Federal Agency Funding Opportunities

DOD Launches Distributed Bioindustrial Manufacturing Program to Bolster Domestic Supply Chains

...The Department of Defense announced new opportunities for American businesses to advance biotechnology. Biomanufacturing has the potential to support the U.S. military and our allies and partners by generating needed materials. This Request for White Papers (RWP) for the Distributed Bioindustrial Manufacturing Investment Program (DBMIP) seeks to strengthen domestic supply chains and sustain America's global prominence in biotechnology. This RWP lays the foundation for a new era in U.S. bioindustrial manufacturing industry. The Department expects to announce awards in May for approximately 30 proposals, which will each receive up to $2 million to deliver a business and technical plan detailing how they intend to build a U.S. bioindustrial manufacturing production facility...
U.S. Department of Defense - Jan 31, 2024

HPC

Attacking challenges at high speed

...The high-performance computing assets at the U.S. Army Engineer Research and Development Center gives researchers the capability to quickly scale mountains of data. Computer scientists at the U.S. Army Engineer Research and Development Center (ERDC) merge high-performance computing (HPC) and data analytics, giving them the capability to process large amounts of data with unprecedented speed. Known as High-Performance Data Analytics (HPDA), the process leverages HPC's parallel processing to run powerful analytics software at speeds higher than a teraflop, or a trillion floating-point operations per second. As the Army and Department of Defense (DOD) modernize their existing asset portfolio across the nation, ever-changing amounts of data will be produced. This data, coupled with data-driven analytic approaches such as artificial intelligence (AI) and HPC resources, could improve and accelerate decision making. There is an endless variety of possibilities for how HPDA can support ERDC, the Army, and DOD's mission needs today...
U.S. Army Engineer Research and Development Center - Jan 25, 2024

Artificial Intelligence / Machine Learning

Fact Sheet: Biden-Harris Administration Announces Key AI Actions Following President Biden's Landmark Executive Order

...Three months ago, President Biden issued a landmark Executive Order to ensure that America leads the way in seizing the promise and managing the risks of artificial intelligence (AI). Now, Deputy Chief of Staff Bruce Reed will convene the White House AI Council, consisting of top officials from a wide range of federal departments and agencies. The Executive Order directed a sweeping range of actions within 90 days to address some of AI's biggest threats to safety and security. Nine agencies—including the Department of Defense, the Department of Transportation, the Department of Treasury, and Department of Health and Human Services—submitted their risk assessments to the Department of Homeland Security. Over the past 90 days, agencies have launched a pilot of the National AI Research Resource—catalyzing broad-based innovation, competition, and more equitable access to AI research. The pilot, managed by the U.S. National Science Foundation (NSF), is the first step toward a national infrastructure for delivering computing power, data, software, access to open and proprietary AI models, and other AI training resources to researchers and students. The AI and Tech Talent Task Force created by President Biden's E.O. has spearheaded this hiring action and is coordinating other key initiatives to facilitate hiring AI talent...
The White House - Jan 29, 2024

A Call to Service for AI Talent in the Federal Government

...President Biden's Executive Order establishes a National AI Talent Surge. The Biden-Harris Administration is hiring dedicated people who want to help us leverage AI responsibly to improve government services, make smart policies and regulations around AI to protect people's rights, safety, and privacy, and build our research and development (R&D). The U.S. Government is already using AI to benefit the public across its vast mission areas to include tackling global challenges such as climate change and cancer, and improving the quality and efficiency of government services. The Biden-Harris Administration is leading the way by developing standards for testing and red-teaming to establish benchmarks for powerful AI models...
The White House - Jan 29, 2024

Saving an endangered species: New AI method counts manatee clusters in real time

...Manatees are an endangered species and vulnerable to environmental changes and other risks. Accurately counting manatee clusters is challenging, but important for designing safety rules for boaters and divers. Aerial surveys are time-consuming and costly, and its accuracy depends on factors such as weather conditions and time of day. U.S. National Science Foundation-supported researchers at Florida Atlantic University are among the first to use a deep learning-based crowd counting approach to automatically tally the number of manatees in a region, using images captured from CCTV cameras. To determine manatee densities and calculate their numbers, researchers used generic images captured from surveillance videos at the water's surface. They then used a design matching the manatees' unique shape to transform the images into manatee-customized density maps. The results offer potential ways of aiding endangered species...
National Science Foundation - Jan 25, 2024

Battle Looming Between AI and Counter-AI, Says DOD Official

...Jude R. Sunderbruch, executive director of the DOD Cyber Crime Center, predicted that in the future, there will be a battle between AI and counter-AI. "I would not hesitate to

call it an arms race but a strategic competition when it comes to artificial intelligence," he said. The near-term goal is to figure out how to use the currently existing AI tools and to figure out how to apply them to information that the government has layered with other information. Sunderbruch also predicted that there will someday be "a confluence between quantum and AI, which will be a real game-changer." Army Col. Richard Leach, intelligence director, Defense Information Systems Agency, addressed the role of AI in helping to sort through the "tsunami of data" coming in that needs to be processed, analyzed and provided to decision makers. Using AI to help in understanding the environment is important, he said. The environment is changing every day...
U.S. Department of Defense - Jan 25, 2024

Robotics / Autonomous Vehicles

Giant sea salt aerosols play major role in Hawaii's coastal clouds, rain

...A U.S. National Science Foundation-supported study by scientists at the University of Hawai'i at Mānoa reveals that the coastline can produce up to five times the concentration of giant sea salt aerosols compared to the open ocean and that coastal clouds may contain more of these particles — affecting cloud formation and rain around the Hawaiian Islands. The team developed a lightweight and affordable 3D-printed instrument that measures aerosol size distributions rather than only aerosol concentration or mass, like many other sampling methods. They attached the device to kites, fishing rods and drones to sample how giant sea salt size distributions vary across different altitudes, locations from the coastline and a wide variety of environmental conditions. They identified the coast as a major source of giant sea salt aerosols which is important in understanding how they impact our coastal clouds. The researchers also found that wave heights were the biggest predictor of giant sea salt aerosol concentrations...
National Science Foundation - Jan 25, 2024

Quantum

AFRL, Brookhaven National Laboratory Sign MOU to Strengthen Quantum Communication, Networking Collaboration

...The Air Force Research Laboratory, or AFRL, and the U.S. Department of Energy's Brookhaven National Laboratory signed a memorandum of understanding, or MOU to strengthen quantum communication and networking collaboration. The collaboration introduces the Empire State Quantum Network quantum hub, the intent of which is to investigate near- and long-term opportunities in quantum networking. The collaboration between AFRL and Brookhaven Lab will expand their existing partnership by leveraging current programs and approaches, adapting to the changing and improving scientific technical knowledge in quantum networking and incorporating the best understanding of opportunities and challenges in Quantum Information Science and Technology, or QIST, for the nation. The MOU will focus on the interchange of publicly available research materials related to quantum network transduction and quantum network node connectivity requirements; future collaborative quantum communications and networking projects; and collaboration on interoperability engineering issues related to the connection of the Brookhaven and AFRL campuses through a fiber-based quantum network...
Brookhaven Lab - Jan 26, 2024

NSF and Los Alamos NL funded scientists make breakthrough in quantum materials research

...Researchers at the University of California, Irvine and Los Alamos National Laboratory describe the discovery of a new method that transforms everyday materials like glass into materials scientists can use to make quantum computers. The team designed a special apparatus called a "bending station" that allowed them to apply large strain to change the atomic structure of a material called hafnium pentatelluride from a "trivial" material into a material fit for a quantum computer. The theoretical simulations offer profound insights into experimental observations, thereby accelerating the discovery of methods for controlling the quantum states of novel materials. Right now, quantum computers only exist in a few places, but this new research helps make the promise of quantum computers more of a reality. Funding came from a NSF CAREER grant and Los Alamos National Laboratory Directed Research and Development Directed Research program funds...
UCI News - Jan 31, 2024

Cybersecurity / Privacy

New Year, New Initiatives for the NIST Privacy Framework!

...In the past year has seen the release of the NIST AI Risk Management Framework (AI RMF) and the start of an update to NIST Cybersecurity Framework (CSF), Version 2.0.

In light of these and other developments in information technology, our stakeholders have expressed a desire for a Privacy Framework update as well as more help with how to use NIST frameworks and resources in privacy, cybersecurity, Artificial Intelligence (AI), and Internet of Things (IoT) together. The Privacy Framework is a "living" tool meant to evolve to meet stakeholder needs, and the time has come to update to Version 1.1. This year, we intend to implement a modest update to the Privacy Framework to support realignment with CSF 2.0, facilitate ease and effectiveness of use, and ensure the tool is responsive to current privacy risk management needs. A joint Profile for data governance could be a way to effectively demonstrate complementary use of NIST frameworks and resources. We plan to leverage the Privacy Framework 1.1 update process to develop the Profile as many of the same stakeholders will be involved...
National Institute of Standards and Technology - Jan 25, 2024

DOE, NREL, and Clean Energy Industry Stakeholders Partner to Address Cybersecurity for Hybrid Energy Systems

...The U.S. Department of Energy's (DOE) Office of Cybersecurity, Energy Security, and Emergency Response (CESER) announced the launch of Renewable Energy and Storage Cybersecurity Research (RESCue) that will analyze and address cybersecurity concerns for hybrid energy systems. The one-year pilot project expands on DOE's Wind Cybersecurity Consortium. The goals of the one-year pilot project include: * Establish a Hybrid Renewable Cybersecurity Consortium * Create a cyber-resilient design framework for hybrid renewable systems * Coordinate, facilitate, and support the discussion and development of common cybersecurity solutions...
Department of Energy - Jan 30, 2024

DARPA-supported study finds smart devices' ambient light sensors pose imaging privacy risk

...Current smart devices contain ambient light sensors, which open the door to a threat: hackers. These passive, seemingly innocuous smartphone components receive light from the environment and adjust the screen's brightness accordingly. Unlike cameras, though, apps are not required to ask for permission to use these sensors. In a surprising discovery, researchers from MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL) uncovered that ambient light sensors are vulnerable to privacy threats when embedded on a smart device's screen. The team proposed a computational imaging algorithm to recover an image of the environment from the perspective of the display screen using subtle single-point light intensity changes of these sensors to demonstrate how hackers could use them in tandem with monitors. These sensors can eavesdrop on regular gestures, like scrolling, swiping, or sliding, and capture how users interact with their phones while watching videos and spy to gather this permission-free data. Collecting these images requires a dedicated inversion process where the ambient light sensor first collects low-bitrate variations in light intensity, partially blocked by the hand making contact with the screen. Next, the outputs are mapped into a two-dimensional space by forming an inverse problem with the knowledge of the screen content. An algorithm then reconstructs the picture from the screen's perspective, which is iteratively optimized and denoised via deep learning to reveal a pixelated image of hand activity. The work was supported by the DARPA REVEAL program...
MIT News - Jan 29, 2024

5G, Wireless Spectrum, Networking & Communications

Research Pinpoints Key Role of NASA Satellites in Monitoring Earth's Vital Signs

...The all-women group of scientists present an anthology of key findings unearthed by satellite technology over the last two decades. For the past two decades, NASA has operated a series of three satellites carrying lasers — the Ice, Cloud and land Elevation Satellite (ICESat), its successor ICESat-2, and the Global Ecosystem Dynamics Investigation (GEDI) on the International Space Station — resulting in 20 years of data. A laser altimeter is a precise tool for measuring Earth's topography, capturing the height and shape of a specific area on the Earth's surface. A satellite shoots a laser beam from space, determining the height of the target area by how far the laser travels and how long it takes to bounce back. The new research illustrates the impact of satellite laser altimetry to monitor the full Earth system. This laser technology is deployed on satellites or the space station, ensuring it remains unaffected by international borders. Earth is made up of different components that work together: living things (biosphere), oceans and water on land (hydrosphere), the air around us (atmosphere), icy areas like ice sheets and glaciers (cryosphere), and the ground beneath our feet (geosphere). Figuring out how these components interact and change with time is crucial to figuring out how things might change in the future. Over the past decade, Scripps Oceanography's Fricker has played a crucial role as a member of NASA's Science Definition Team, contributing to the success of the ICESat-2 satellite launch and recently being appointed as a science team leader...
Explorations Now - Jan 29, 2024

Climate Change / Green Energy & IT

NOAA, BOEM announce final North Atlantic right whale and offshore wind strategy

...The North Atlantic Right Whale and Offshore Wind Strategy provides guidance for a coordinated effort across the federal government and with agency partners to protect and promote the recovery of North Atlantic right whales and other marine life, while responsibly developing offshore wind energy to address the climate crisis. Immediate impact mitigation efforts include providing guidance to developers on conducting robust sound field verification to ensure that noise levels expected from offshore wind activities do not exceed thresholds set for certain activities. NOAA Fisheries, BOEM and the Department of Energy are supporting the rapid development and deployment of advanced new technologies that can further the ability to detect, monitor and avoid negative interactions between marine mammals and offshore wind facility construction and operations. Investments will support the application of existing technologies — such as passive acoustic monitoring — to enable vessels to detect and avoid North Atlantic right whales and other large whales. They also support the development and evaluation of new technologies — such as those that use high-resolution satellite information — to transform North Atlantic right whale monitoring and improve understanding of the whales' distribution and habitat use...
National Oceanic and Atmospheric Administration - Jan 25, 2024

Beyond Ice Cubes: Researchers Bring Complex Shapes to Sea-Ice Dynamics Models

...Sea ice is an important component of the Earth's climate system. To understand sea ice, scientists need numerical models of how sea ice moves and how it transfers heat and energy. One of the popular sea ice models, CICE, uses a quadrilateral structured mesh. Researchers recently adapted the sea ice dynamics formulation of CICE from a regular structured quadrilateral mesh to more complex, freeform unstructured meshes. These unstructured meshes are used in the sophisticated Model for Prediction Across Scales and the Energy Exascale Earth System Model (E3SM). These models can concentrate on specific regions, which makes the models less computer-intensive. The MPAS mesh also allows the removal of equatorial grid cells, where sea ice does not form, increasing computational efficiency and load balancing, while also being flexible enough to allow quadrilateral meshes to still be used. This work was supported by the Earth System Model Development program area of the Department of Energy Office of Science, Biological and Environmental Research program...
Department of Energy - Jan 31, 2024

NSF Awards Innovation Grant of up to $160M to UW and Partner Institutions

...A collaborative initiative involving the University of Wyoming, Wyoming community colleges and Colorado institutions has been selected by the National Science Foundation (NSF) to drive innovation, technology and economic growth in the region. The Colorado-Wyoming Climate Resilience Engine (CO-WY Engine) is one of 10 groundbreaking recipients of NSF's inaugural Regional Innovation Engines program. The initial award to the CO-WY Engine is up to $15 million over two years, with potential to receive up to $160 million over 10 years. UW will seek opportunities to co-create technologies in soil carbon and carbon offsets; methane monitoring and detection; resilient energy expansion; earth sensing; smart communities; complex modeling technologies; data capture; and other technology areas of interest...
University of Wyoming - Jan 29, 2024

Digital Health

Establishing Qualification Processes for Point-of-Need Pharmaceutical Products

...Recent technological advances, fueled by machine-learning models, synthetic chemistry, and manufacturing hardware enabled the rapid synthesis and manufacturing of drug products critical for protecting warfighter health in forward operating bases. DARPA's new Establishing Qualification Processes for Agile Pharmaceutical Manufacturing (EQUIP-A-Pharma) program seeks to demonstrate a real-time digital regulatory approval framework for multiple finished drug products produced on a single reprogrammable hardware platform. The program aims to support up to four pilot agile pharmaceutical manufacturing sites that will generate the data required to inform the creation of a future regulatory framework. EQUIP-A-Pharma performers will engage with additional U.S. government and defense stakeholders as well as appropriate regulatory authorities, including the Food and Drug Administration's Emerging Technology Program office to evaluate suitability for rapid qualification of drug products manufactured at point of need...
DARPA - Jan 25, 2024

NSF/NIH/DOE-funded research found viral protein fragments may unlock mystery behind serious COVID-19 outcomes

...There are many lingering mysteries from the COVID-19 pandemic, such as why does SARS-CoV-2 cause severe symptoms in some patients, while many other coronaviruses don't? And what causes strange symptoms to persist even after the infection has been cleared from a person's system? Using an artificial intelligence system they developed, researchers scanned the entire collection of proteins produced by SARS-CoV-2 and then performed an exhaustive series of validation experiments. The scientists found that certain viral protein fragments, generated after the SARS-CoV-2 virus is broken down into pieces, can mimic a key component of the body's machinery for amplifying immune signals. Their discoveries suggest that some of the most serious COVID-19 outcomes can result from these fragments overstimulating the immune system. The research team found SARS-CoV-2 fragments can imitate innate immune peptides. The human peptide being imitated by the viral fragments has been implicated in rheumatoid arthritis,

psoriasis and lupus, and that different aspects of COVID-19 are reminiscent of these autoimmune conditions. In addition to their AI analysis, the researchers used state-of-the-art methods for elucidating nanoscale biological structures and conducted cell- and animal-based experiments. Compared to relatively harmless coronaviruses that cause the common cold, the team found that SARS-CoV-2 harbors many more combinations of fragments that can better mimic human immune peptides. The study was supported by the National Science Foundation, the National Institutes of Health, the Department of Energy...
UCLA Newsroom - Jan 29, 2024

NSF-funded UB computer scientist applies AI to improve medical imaging

...Technologies are poised for greater advancement in the near future, UB computer scientist Mingchen Gao says, due to the computing power of artificial intelligence (AI). AI-assisted medical imaging tools offer promise in detecting subtle signs of illness that might be overlooked in traditional examinations. Gao received a $578,519 National Science Foundation CAREER award to study AI-assisted medical imaging diagnostics. Her research centers on developing algorithms that enable machine learning models to analyze medical images. AI-assisted medical imaging is not yet widely used in health care settings...
University at Buffalo - Jan 25, 2024

NIH-funded tool helps predict progression of Alzheimer's

...Researchers at The University of Texas at Arlington have created a novel learning-based framework that will help Alzheimer's patients accurately pinpoint where they are within the disease-development spectrum. This will allow them to best predict the timing of the later stages, making it easier to plan for future care as the disease advances. In work supported by more than $2 million in grants from the National Institutes of Health and the National Institute on Aging, researchers developed a new learning-based embedding framework that codes the various stages of Alzheimer's disease development in a process they call a "disease-embedding tree," or DETree. Using this framework, the DETree can not only predict any of the five fine-grained clinical groups of Alzheimer's disease development efficiently and accurately but can also provide more in-depth status information by projecting where within it the patient will be as the disease progresses. The experiment was repeated several times using machine learning-methods to validate the technique...
The University of Texas at Arlington - Jan 26, 2024

NIH/DOD Funded 3D Printed Electronic Skin Provides Promise for Human-Machine Interaction

...By utilizing nanoengineered hydrogels that exhibit tunable electronic and thermal biosensing capabilities, researchers at Texas A&M University have developed a 3D-printed electronic skin (E-skin) that can flex, stretch and sense like human skin. Future uses for the E-skin are vast, including wearable health devices that continuously monitor vital signs like motion, temperature, heart rate and blood pressure, providing feedback to users and helping them improve their motor skills and coordination. The most exciting aspect of this research is its potential applications in robotics, prosthetics, wearable technology, sports and fitness, security systems and entertainment devices. The study is funded by the National Institutes of Health and the Department of Defense...
Texas A&M Today - Jan 26, 2024

NASA funds surgical robot for surgery in remote areas

...Shane Farritor and his team have been preparing a space-worthy version of their robot, named MIRA, for Miniaturized In vivo Robotic Assistant, for about two years. The vision for MIRA is to perform surgery in remote areas, whether space, military battlefields or rural areas where no doctor is at hand. NASA provided a grant through the Established Program to Stimulate Competitive Research (EPSCoR) in summer 2022 to begin preparing MIRA for an autonomous test aboard the Space Station. In 2023, NASA awarded an additional grant, also through EPSCoR...
University of Nebraska-Lincoln - Jan 30, 2024

Other IT Related

FACT SHEET: Biden-Harris Administration Announces Innovation Engines Awards, Catalyzing More Than $530 Million to Boost Economic Growth and Innovation in Communities Across America

...The White House announced 10 U.S. regions that are emerging as innovation ecosystems and receiving over $530 million of investment catalyzed by the U.S. National Science Foundation's (NSF) Regional Innovation Engines program. The 10 NSF Regional Innovation Engines will build on regions' scientific and technological strengths to build new industries and workforces, creating more possibilities for Americans to participate in the 21st-century economy without having to leave their communities. * The Central Florida Semiconductor Innovation Engine will build a next-generation semiconductor technology innovation ecosystem. * The North Dakota Advanced Agriculture Technology Engine will reinvent the way we feed our nation, combining advanced crop data, genetic data, climate modeling and sensor technologies...

Sandia and UNM collaborate to build more efficient rocket by adding dimples

...Sal Rodriguez, a nuclear engineer at Sandia National Laboratories, is forging a rocket revolution with the help of the University of New Mexico and student Graham Monroe. They incorporated dimples similar to those found on golf balls, a key element in Rodriguez's fluid dynamics and heat transfer research. The dimples work by generating turbulence, redistributing the turbulent energy, accelerating the flow in the dimpled regions, and reducing the boundary layer thickness. But it's not just rockets that can benefit from this dimpling. He dimpled the hood of a Ford Mustang. The ideal size and placement of the dimples on the car's hood showed a minimum 25% reduction in airflow drag compared to a car with no dimples. While all dimpling helps, precision with dimples is key. Rodriguez's team recently submitted a non-provisional patent application for dimpled wind turbines. "We can apply to rockets, aircraft, cars, electronic vehicles, submarines, drones and wind turbine blades," Rodriguez said. "We can extend the distance that they can travel or the energy they harvest. Dimpling will have a beneficial effect on aerodynamics...

Sandia National Laboratories - Jan 25, 2024

NASA-supported astronomers spot 18 black holes gobbling up nearby stars

...The study's authors are reporting the discovery of 18 new tidal disruption events (TDEs) — extreme instances when a nearby star is tidally drawn into a black hole and ripped to shreds. The researchers spotted these previously "hidden" events by looking in an unconventional band: infrared. In addition to giving off optical and X-ray bursts, TDEs can generate infrared radiation, particularly in "dusty" galaxies, where a central black hole is enshrouded with galactic debris. The dust also heats up, producing infrared radiation that is detectable serving as a sign of tidal disruption events. ... The findings also resolve a "missing energy" problem. Physicists have theoreticially predicted that TDEs should radiate more energy than what has been actually observed. But the MIT team now say that dust may explain the discrepancy. They found that if a TDE occurs in a dusty galaxy, the dust itself could absorb not only optical and X-ray emissions but also extreme ultraviolet radiation, in an amount equivalent to the presumed "missing energy." This research was supported by NASA...

MIT News - Jan 29, 2024

STEM / Workforce & IT

NOAA EPP/MSI CCME II — Developing student scholars to scientists

...The NOAA EPP/MSI Center for Coastal and Marine Ecosystems II (CCME II) continues its mission to recruit, educate, train, and graduate a new generation of scientists. Scholars are studying disciplines such as environmental science, marine biology, computer science, and biology. The training from CCME II has provided opportunities for scholars to develop their interests in NOAA mission-aligned fields and careers. CCME II scholars are engaged in professional development, including its seminar series designed to provide training, exposure to NOAA datasets and tools, and opportunities to network with prospective mentors. Scholars engaged in other experiential training, including the Ocean Exploration Trust, Nautilus Seafloor Mapping Internship, and the NOAA SEAMAP Groundfish Survey...

National Oceanic and Atmospheric Administration - Jan 30, 2024

Girls Build Award-Winning Robot, Get STEM Inspiration

...Four girls from North Carolina —along with the large robot they built— visited the Pentagon to brief European participants of the State Department's International Visitor Leadership Program on increasing inclusivity in STEM. G-Force Robotics is a 12-member, all-girl team that was named Rookie All Star winners at the 2023 FIRST Robotics Competition world championship. G-Force Robotics is one of 1,185 robotics teams sponsored by the Defense Department and industry, but only 2% of teams are all-female. A little over a year ago, these girls didn't know how to use power tools, code in Java or build robots. Working as a team, they built their winning robot in about eight weeks for a competition. Sloan Mann, a 10th grader who has been in robotics for six years, said she initially joined a middle school robotics team where she was the only girl, but she got pushed aside from building and coding to make posters and prepare judging material. So she started an all-girl robotics team where she could increase her technical skills and help other girls with theirs, too...

U.S. Department of Defense - Jan 31, 2024

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 - Jan 1, 2024

FEDERAL HIGH END COMPUTING INFORMATION PORTAL

...Networking and Information Technology Research and Development (NITRD) has a portal that provides information about U.S. Federal government high performance computing activities, including available computing resources; relevant publications; fellowship and training opportunities; and technology transfer, licensing, and industry engagement opportunities. The High End Computing (HEC) Interagency Working Group (IWG) agencies provide the information contained in this portal. HEC IWG agencies are involved in various Federal activities in the HEC area including R&D and providing infrastructure and application. Take a look at it!

Networking and Information Technology Research and Development - Dec 19, 2023

Note: Any mention in the text of commercial, non-profit, academic partners, or their products, or references is for information only; it does not imply endorsement or recommendation by any U.S. Government agency.

Innovation Through NITRD Coordination

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

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