



AUI is a non-profit educational institution founded in 1946 that operates facilities throughout the US and Internationally.

AUI specializes in the design, construction, and management of Research and Development (R&D) institutions, including Federally Funded Research and Development Centers (FFRDCs); cybersecurity and microelectronics; technology transition innovations; workforce development and STEM education; collaboration, engagement & social sciences; and space situational awareness through radio astronomy technology.

AUI CAPABILITIES SUMMARY

WE DESIGN, CONSTRUCT & MANAGE WORLD CLASS SCIENTIFIC FACILITIES

AUI manages large-scale, complex R&D Labs and engages researchers from across disciplines and institutional boundaries to conduct collaborative research. AUI puts the right people together to deliver results, from research center design to discovery and beyond. AUI is recognized as a leading FFRDC manager on behalf of the National Science Foundation (NSF). AUI manages the National Radio Astronomy Observatory (NRAO), including the Central Development Laboratory (CDL), and the Green Bank Observatory (GBO) under cooperative agreements with NSF.

PROJECT MANAGEMENT FOR SCIENCE—AUI has a long record of excellence in building and operating world-class facilities and applies its experience and partnerships to push the cutting edge of research. Most recently, AUI successfully managed the construction and subsequent upgrade of the Karl G. Jansky Very Large Array (VLA) in 2012, and the Atacama Large Millimeter/submillimeter Array (ALMA) in Chile as part of an international consortium led by the US. The \$1.5 billion ALMA project was completed under budget and on time in 2013. ALMA is composed of 66 high-precision antennas located 5,000 m above sea level. ALMA is the highest-altitude, full-time ground-based observatory in the world. *Photo credit: ALMA/NRAO/AUI/Pablo Carrillo*

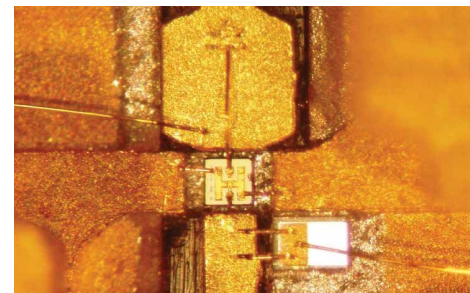


CYBERSECURITY & MICROELECTRONICS

AUI partners with government, industry, and academia to deliver enhanced protections to vulnerable communities and critical infrastructure. We mitigate risk, bolster defensive postures, increase resiliency, and guide remediation through in-depth analysis, support, and comprehensive training services. AUI has created Woodstar Labs to pioneer new research capabilities in cybersecurity to advance our defenses, particularly for underserved communities in the sciences, academia, and for our national critical infrastructure needs. We achieve our aim in cybersecurity through R&D, direct services to clients, and delivery of cybersecurity and critical infrastructure education materials through our eLearning platform.

We focus on microelectronics from a supply chain management perspective and have extensive expertise in microchip components and firmware. Woodstar Labs conducts research on hardware to identify potential malware and unintended functionality associated with equipment in question. We explore entry points and exploitation methods and study vulnerability points in component design, hardware integration, code development, production, provisioning, and distribution.

Photo credit: CDL/NRAO/AUI



ASSOCIATED UNIVERSITIES, INC.
www.aui.edu

Suite 730, 1400 16th Street NW
Washington, DC 20036 2252

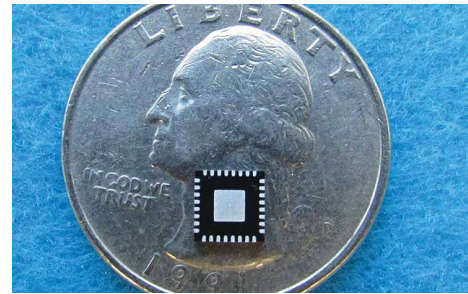


AUI CAPABILITIES SUMMARY

TECHNOLOGY TRANSITION INNOVATIONS

AUI has launched the PLUS Initiative to unlock a wealth of technological innovations hidden in academia and solve the most challenging problems in research and development. PLUS pools private funds to apply laboratory-results to global challenges for clean air, clean water, clean energy, greater connectivity, reducing waste out of the labs and bringing solutions into the market. We provide expertise in system engineering, manufacturing engineering, market entry and scale-up; market access and market knowledge; and patient capital pooled for a diverse portfolio of in-demand solutions. We pioneered the open access model generations ago and now seek to optimize the utilization of lab space nationally and support innovation centers globally.

Photo credit: CDL/NRAO/AUI



WORKFORCE DEVELOPMENT & STEM EDUCATION

OPEN provides educators with access to peer-reviewed and competency-based eLearning programs that deliver industry aligned content to a global user-base. Through OPEN, AUI aspires to become the world's largest digital repository of competency-based technical and vocational educational resources.

AUI maintains active public engagement efforts and programs in seeking to educate and excite people of all ages about science. We research and promote innovative and effective approaches to formal and informal education, mainly focused in three areas: 1) astronomy education and outreach, 2) teaching and learning with big data in Earth-space sciences, and 3) making STEM accessible for all. Through its programs and international collaboration, AUI works to broaden the participation of under-represented groups in STEM, and to develop a robust STEM workforce and a better-informed citizenry.

Photo credit: OPEN/AUI



COLLABORATION, ENGAGEMENT & SOCIAL SCIENCES

AUI presents unique partnership opportunities as a nonprofit, nonmember, education organization. We convene leaders within the scientific community to prioritize the future of research, drive Noble Prize-winning research, and value the relationship between research and policy. We inform debate by assembling renowned experts and empower key decision makers to improve processes and performance. Our vision is to prepare generations of leaders by providing scholarly leadership in the advancement of knowledge to bring forth new ideas for solving some of the most pressing problems facing society. Our leadership has served in the uppermost echelons of industry, government, and the military. We seek and value a broad diversity of perspectives and enjoy the richness and depth it brings to policy analysis.

Photo credit: NRAO/AUI



SPACE SITUATIONAL AWARENESS THROUGH ASTRONOMY TECHNOLOGY

Expertise developed in support of radio astronomy has uses in microwave electronics; wireless communications; and signal & data processing. New THz receiver products, active radar, image processing of multi-dimensional data sets, and space situational awareness capabilities created through the augmentation of radio telescopes are important developments felt beyond the radio astronomy community. Green Bank Observatory and NASA have demonstrated the power of this capability by finding the missing Chandrayaan-1 spacecraft in 2016. Together they located the tiny, 5-foot lunar probe orbiting the moon 237,000 miles away by pioneering a new application of interplanetary radar.

Photo credit: GBO/AUI



ASSOCIATED UNIVERSITIES, INC.

www.aui.edu

Suite 730, 1400 16th Street NW

Washington, DC 20036 2252