Advancing Intelligence Through Science

WHAT WE DO

The NSA/CSS Research Directorate (RES) advances US intelligence and national security capabilities by inventing, developing, and applying advancements in science and emerging technologies to NSA's signals intelligence and cybersecurity missions. It is also the largest in-house research organization in the Intelligence Community (IC), with experts in fields such as mathematics, computer science, engineering, cybersecurity, physics, neuroscience, and linguistics.

The goal of RES is to develop new and innovative techniques and technologies to support and enable NSA missions, including the joint-authority missions of the IC and Department of Defense.

WHO WE ARE

RES is home to a highly technical and talented workforce that performs cutting-edge research and creates breakthroughs in mathematics, computer science, engineering, cybersecurity, physics, neuroscience, and linguistics that lead to creative solutions to NSA's most challenging problems.

RES engages with leading industries, universities, and national laboratories to both advance core competencies and leverage work in overlapping disciplines. RES recruits exceptional scientists with world-class skills in fields related to the emerging technologies it explores, and it is also the patent leader across the IC.

Maintaining the Competitive Edge

MATHEMATICS RESEARCH

Mathematics Research performs world-class mathematics research and cryptographic design and is responsible for applying advanced techniques from mathematics-related fields to create breakthroughs in cryptology, information processing, network/data analysis, signals intelligence, and cybersecurity.

LAB FOR ADVANCED CYBERSECURITY RESEARCH

LACR partners with academia, industry, and mission to advance the science of cybersecurity. It conducts mission-focused research to automate network defense, creates trusted hardware and software solutions, advances the use of formal methods, and creates tools to enhance cyber threat intelligence.

LAB FOR PHYSICAL SCIENCES

Through the fundamental understanding of physical sciences and engineering, LPS research supports current and future mission challenges confronting NSA and the IC. Research areas include future computing systems (quantum/high-performance computing) and advanced manufacturing and sensing.

LAB FOR TELECOMMUNICATION SCIENCES

LTS collaborates with academia, industry, other government labs, and IC mission organizations to conduct advanced networking, computing, and telecommunications research. It initiates technical research to solve intractable problems and explore the implications of new communications domains.

COMPUTER & ANALYTIC SCIENCES RESEARCH

Computer and Analytic Sciences Research, which includes the Lab for Analytic Sciences, conducts mission-focused research to invent techniques, tools, and tradecraft that augment analysts' ability to derive intelligence from complex data. It develops new technologies for transforming raw data into actionable information.

OFFICE OF INNOVATION

The Office of Innovation is catalyzing NSA's transformation into an Agency that rapidly adapts to unforeseen challenges and opportunities by helping organizations rapidly iterate, integrate tight feedback loops, bring outside technology and tradecraft in, and make better decisions under uncertainty.

OFFICE OF RESEARCH & TECHNOLOGY APPLICATIONS

ORTA establishes partnerships with industry, academia, and other government agencies to accelerate mission goals, advance science, and promote the growth and commercialization of technology originally created for Agency mission.

FIND OUT MORE

The Next Wave is an NSA publication on emerging technologies, available at www.nsa.gov/thenextwave.

CONTACT US

Internships and job opportunities: researchjobs@nsa.gov.

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