

Argonne National Laboratory

Argonne National Laboratory is a leader in developing science and technology solutions for resilient critical infrastructure systems that enhance community resilience and reduce risks to lives and property. Argonne researchers are studying the cascading and escalating impacts among critical infrastructure through comprehensive analysis of upstream, internal, and downstream dependencies. The resiliency of these systems depends on the linked contributions from all aspects that make up the communities that rely on them—physical infrastructure, socioeconomic and behavioral elements, and environmental factors. Hence, a key component of Argonne’s infrastructure resilience analysis involves researching the human dimension of critical infrastructure systems – the ensemble of human actors that includes decision makers, developers, owners, operators, regulators, and those impacted by the systems. Argonne researchers are utilizing a variety of modeling and simulation approaches, advanced data analytics, and systems science methods to study how to enhance the resiliency of communities and provide decision makers with actionable courses of action. Argonne’s interests are highly collaborative – reaching across government research organizations (federal, state, and local), industry, and academia to assemble powerful interdisciplinary teams.