

INSTITUTE FOR DATA, SYSTEMS, AND SOCIETY

Research Centers

Research in IDSS addresses overarching challenges, including the modeling and prediction of system behavior and performance; systems design and architecture; and issues including social welfare, monetization, and regulation, as well as sustainability and resilience, cascades and contagion phenomena, and systemic risk.

IDSS will sustain this research agenda by fostering and prioritizing several types of strong connections, including:

- A community of experts, at MIT and elsewhere, with demonstrated success performing impactful, multidisciplinary research in these domains.
- A close connection between research and domain expertise, to enable a contextually-informed understanding of the challenges and opportunities in complex systems.
- Educational and research methodologies, not considered in isolation, but instead anchored in one or several of the cross-disciplinary fields of statistics, information and decision sciences, the science of interconnections, as well as the study of social and institutional behavior.

Laboratory for Information and Decision Systems

The Laboratory for Information and Decision Systems (LIDS) (<http://lids.mit.edu>) is an interdepartmental laboratory devoted to research and education in systems, networks, control, and data science, staffed by faculty, research scientists, and graduate students from many departments and centers across MIT. The mission of LIDS is to develop and apply rigorous approaches and tools for system modeling, analysis, design, and optimization. It encompasses the development of novel analytical methodologies, as well as the adaptation and application of advanced methods to specific contexts and application domains. LIDS research addresses physical and man-made systems, their dynamics, and the associated information processing. Some of the lab's core research areas are: statistical inference and machine learning; optimization; systems theory, control, and autonomy; and networks.

Further information about LIDS (<http://catalog.mit.edu/mit/research/laboratory-information-decision-systems>) can be found in the Research and Study (<http://catalog.mit.edu/mit/research>) section.

Sociotechnical Systems Research Center

The Sociotechnical Systems Research Center (SSRC) (<http://ssrc.mit.edu>) is an interdisciplinary research center that focuses on the study of high-impact, complex, sociotechnical systems that shape our world.

SSRC brings together faculty, researchers, students, and staff from across MIT to study and seek solutions to complex societal challenges that span healthcare, energy, infrastructure networks, the environment, and international development.

For further information on SSRC and its programs (<http://catalog.mit.edu/mit/research/sociotechnical-systems-research-center>), see the Research and Study (<http://catalog.mit.edu/mit/research>) section.