MIT ENVIRONMENTAL SOLUTIONS INITIATIVE

The MIT Environmental Solutions Initiative (ESI) (https://environmentalsolutions.mit.edu) advances science, engineering, policy and social science, design, the humanities, and the arts toward a people-centric and planet-positive future.

Founded in 2014, ESI's overarching goal is to accelerate solutions to the world's environmental challenges. To do so, ESI channels MIT's research and education capacity to advance science, invent technologies, and innovate policies for mitigating carbon emissions and adapting to a changing climate in the face of global development needs and growing pressures on natural resources. ESI also leverages MIT's proven convening power to engage with key stakeholders and decision makers in supporting the deployment of solutions worldwide.

Education

ESI's approach is fundamentally multidisciplinary, and studying the environment and sustainability is a hands-on, interdisciplinary, and cutting-edge experience at MIT. On campus, academic offerings are designed for students to learn alongside world experts, and coursework relates to real problems facing the planet. Beginning in a student's first year and throughout a graduate's career, the impact of an MIT education in the environment and sustainability (https://environmentalsolutions.mit.edu/education) can be felt worldwide.

Education priorities include:

- an undergraduate minor in Environment and Sustainability (http://catalog.mit.edu/interdisciplinary/undergraduate-programs/minors/environment-sustainability) open to students in all majors
- the infusion of environmental content into General Institute Requirements (http://catalog.mit.edu/mit/undergraduate-education/general-institute-requirements) and other introductory STEM subjects
- environment and sustainability subjects (https://environmentalsolutions.mit.edu/classes-search) that offer students a chance to explore challenges and solutions
- the MIT Action Sustainability Corps, which aims to develop a community of MIT students who are personally and professionally committed to advancing a sustainable world
- ESI Undergraduate Research Opportunities Program (UROP) (https://urop.mit.edu) and internship placement and support

Research

ESI's priorities for research (https://environmentalsolutions.mit.edu/research) fall into three domain areas: climate science and Earth systems; cities and infrastructure; and sustainable production and consumption. Each domain draws upon engineering; natural and social sciences; design; and arts and humanities to understand and address critical challenges.

ESI is pursuing collaboration with a diverse array of partners in industry, government, and civil society, with the aim of building robust research programs in all three priority domains.

Engagement

ESI aims to stimulate new activities on campus and to share essential climate information (https://environmentalsolutions.mit.edu/what-we-do) with a broad public audience. Ongoing projects include Here & Real (https://environmentalsolutions.mit.edu/here-and-real), the MIT Climate Portal (https://climate.mit.edu), and the TILClimate Podcast (https://environmentalsolutions.mit.edu/tilclimate-podcast), and on-campus events (https://environmentalsolutions.mit.edu/events) that occur throughout the year to bring together students, faculty, staff, and alumni for meaningful speaker series and workshops.

ESI is directed by John E. Fernández, professor of architecture. For more information, please email ESI headquarters (esi@mit.edu).