



Center for Global Public Safety

Bringing Together the World's Great Minds in
Fire Protection, Water Security, Energy Innovations,
Emergency Response, and Smart Transportation Technologies



WPI



At a time when the world's challenges are more complex and urgent than ever before, WPI must innovate as never before."

—President Laurie Leshin

Who We Are

In October 2016, WPI entered into a partnership with Tsinghua University in Beijing—one that aims to make the world safer. The cooperation agreement was signed by WPI President Laurie Leshin and Tsinghua President Qiu Yong to develop a joint academic and research center focused on global public safety concerns related to man-made and natural disasters, such as earthquakes, floods, and fires. Both universities have been working to increase disaster prevention and safety practices around the world. Together, with this new endeavor, they aim to be the leaders in creating a more resilient world.

At WPI, the Center for Global Public Safety is an interdisciplinary research and innovation initiative that brings together industry leaders and universities from around the world to lead an integrated effort to improve global public safety. Academic and industry partnerships are developing solutions to local and global problems while advancing essential technology for the development of smart and safe communities worldwide.

The mission of the Center for Global Public Safety is to engage in research, education, strategic alliances and outreach activities that make the world a safer place. Our focus areas include: fire protection, water security, energy initiatives, emergency response, and smart transportation technologies.

Driven by a vision to develop local and global solutions to challenges in these areas, our demand-driven center activities engage people in world-class research, education, strategic partnerships, and innovation to solve real world problems.

What We Can Achieve

We aim to reach higher and achieve a new level of impact in public safety by preparing our graduates to be global citizens and enable our students and faculty to have a positive impact on the world. We also know that as our global society becomes increasingly complex and inter-connected, so too do the challenges we face.

This is especially true in the realm of public safety. The evolution of our modern urban environments presents numerous and developing threats to our public safety from both natural and human-made causes. Disasters by their nature are complex interdisciplinary problems that cut across jurisdictional and geographic boundaries. Effective disaster response, therefore, requires innovative thinkers who can work across cultures and disciplines quickly and decisively, when lives and livelihoods are at stake.

It is truly a different world than even a decade ago. WPI, with its well-established and internationally respected academic and research programs, has redoubled its commitment to improving our resiliency to the broad range of global public safety concerns.

Within five years, the Center for Global Public Safety aims to have established a global network in five locations that is delivering impactful results in public safety for communities around the world—Worcester, MA (USA); Beijing (China); United Arab Emirates; Africa; and South America.

Above: Prof. Natalie Farny and her interdisciplinary team of undergraduates use synthetic biology approaches to prevent food-borne pathogens from growing on field crops as part of the 2018 International Genetically Engineered Machines Competition (iGEM)

How We Will Get There

WPI seeks investments from individuals and corporate supporters to grow and advance the Center for Global Public Safety. It was launched with the generous support of JENSEN HUGHES, LION Inc., ZHP Systems, WPI friend Mickey Reiss, and an anonymous donor. New supporters include: Glenn Yee '74, Robert Ferrari '74, TuSimple, American University of Sharjah, and Nicholas Kyriakos '75. Funds raised support student scholarships, faculty research grants, symposia, graduate project work, international safety collaborations, and more. Additional donor support is vital to our ability to deliver on key educational and research initiatives to advance global public safety.

Education: Training, certificate, and degree programs offered through WPI and other partner institutions such as Tsinghua University enable students greater opportunities to gain expertise in areas related to global public safety, including fire protection engineering, water security, energy initiatives, first responder technologies, and advancements in smart transportation.

Partnerships with universities around the world give students the opportunity to study with affiliated institutions and participate in student exchange programs. Our programs are expanding to include partners in the Middle East and beyond.



WPI's UL Fire Protection Engineering Performance Lab allows for large-scale tests and project-based research.

Research: With university and industry partnerships, the Center for Global Public Safety brings an innovative approach to disaster prevention and mitigation concerns. Researchers examine real-world challenges and develop strategies to address disaster risk, emergency response, disaster management, and community resilience.

Newly launched interdisciplinary seed grant projects have provided WPI faculty support in such areas as:

- ◆ Smart Fire Trucks
- ◆ Concussion Detection
- ◆ Wildland Urban Interface
- ◆ Reducing Fire Risk with Energy Storage Systems
- ◆ Soft Robotics to the Rescue
- ◆ Flame Refluxing
- ◆ Heterogeneous Swarms of Robots
- ◆ Biosensors to Detect Lead in Drinking Water

Value of Being a Philanthropic Supporter

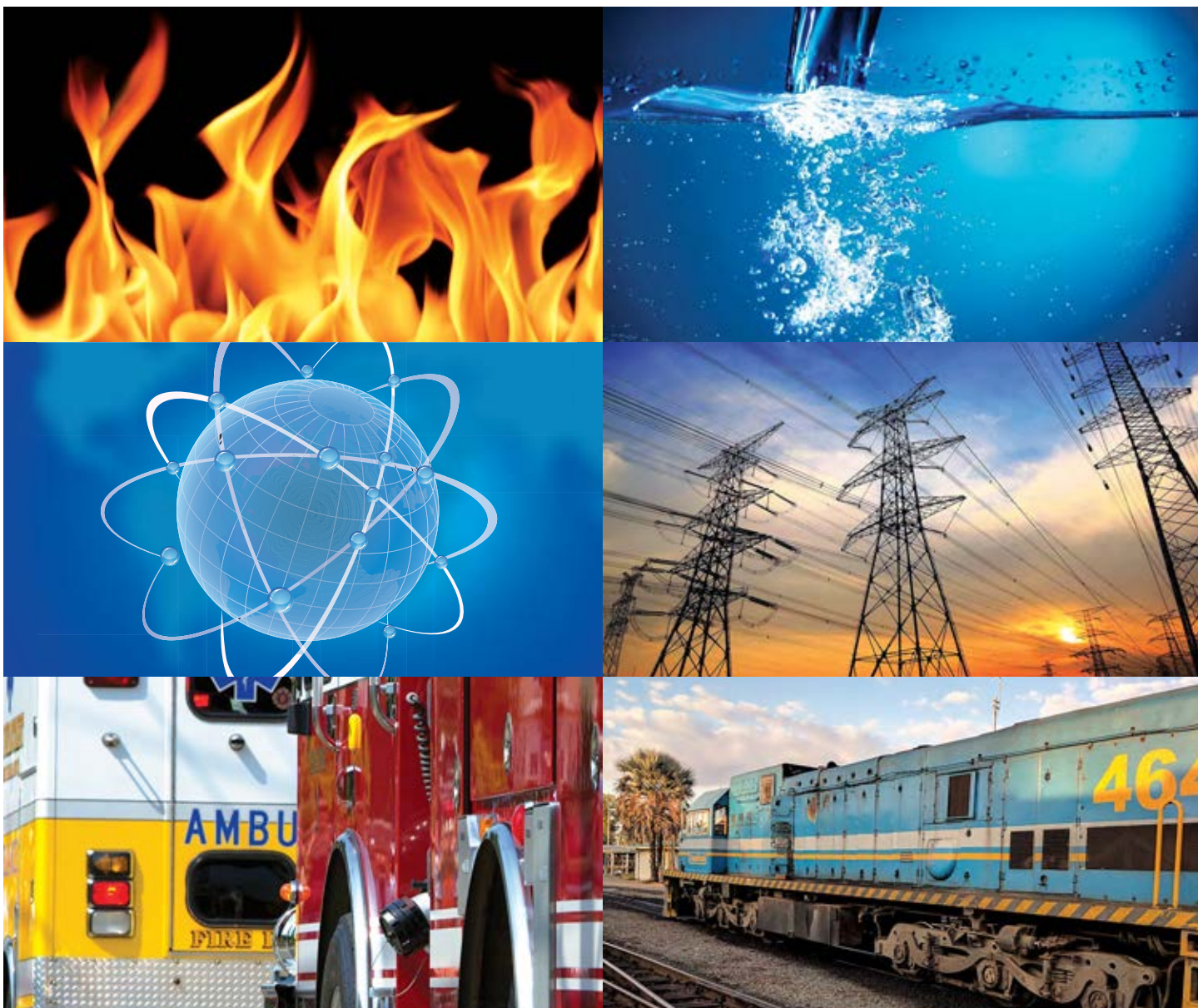
Philanthropic supporters of the Center for Global Public Safety become part of a network of professionals dedicated to creating positive change in the world. Our supporters:

- ◆ Provide input to the research and educational agenda to ensure WPI addresses the most critical safety issues.
- ◆ Network, on a global scale, with key professionals in multiple safety industries: fire, water, energy, transportation, and emergency response.
- ◆ Participate in two major events per year—a spring Industry Forum and a fall Symposium.
- ◆ Become Advisory Council members.
- ◆ Interact with faculty leaders and students working in key interdisciplinary areas, such as robotics, battery safety, wildfires, and biosensors.
- ◆ Gain access to an employee pipeline for their companies.
- ◆ Receive donor recognition on the WPI campus through naming opportunities at many levels and on the WPI website, in brochures, and more.
- ◆ Benefit from working with an institution that is flexible, easy to work with, and gets things done.
- ◆ Know they are making the world a safer place.

OPPORTUNITIES FOR SUPPORT

You have the opportunity to play a role in helping us realize these important goals. Supporting the Center for Global Public Safety is an investment in WPI and the betterment of our global society. We've seen the outcome of bringing great minds together over WPI's more than 150-year history—ideas are catalyzed, leaps are taken, and the world changes. The Center for Global Public Safety seeks to bring together the most innovative and creative researchers and practitioners around some of the most dangerous and intractable challenges, with the aim of changing the world for the better.

We deeply appreciate that you would consider an investment in WPI and the Center for Global Public Safety. Throughout WPI's history, we have been fortunate to have generous benefactors with the desire and forethought to strengthen the mission and vision of this university through their philanthropy. We would be grateful to count you among these visionaries, and we are confident your generosity will inspire others to support WPI and this important initiative.



FIRE ♦ WATER ♦ ENERGY ♦ EMERGENCY ♦ TRANSPORTATION

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