



# PREEMPTIVE Feb 2019 San José, Costa Rica

PREEMPTIVE Advanced Studies Institute - Costa Rica



**February 7–13, 2019**



**LanammeUCR**



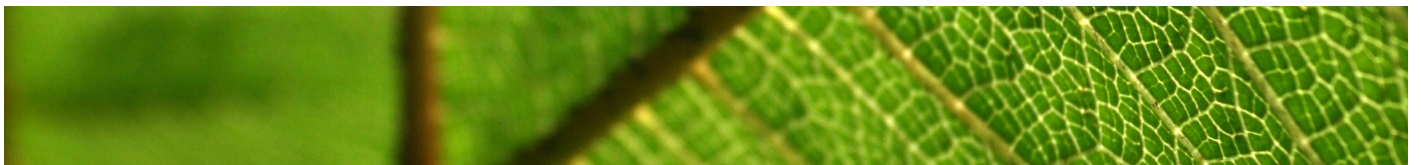
The PREEMPTIVE (Pacific Rim Earthquake Engineering Mitigation Protective Technologies International Virtual Environment) will host six Advanced Studies Institutes (ASIs) for graduate students over the next 3 years:

- **Resilience of Aging Infrastructure — Costa Rica, Feb. 6-13, 2019;**
- *Tsunami Hazards & Infrastructure Resilience — Thailand, June 2019;*
- *Structural Control & Geotech. Challenges — New Zealand, Jan. 2020;*
- *Extreme Earthquake & Tsunami Hazards — Chile, May 2020;*
- *Hurricane and Multi-Hazards — Puerto Rico, Jan. 2021; and*
- *Interdisciplinary Disaster Science — Japan, May 2021*

The goal of the PREEMPTIVE ASIs is to build a diverse community of researchers across the Pacific Rim, and beyond, who share a focused interest in understanding, promoting and accelerating the adoption of protective systems to provide resilience for building and infrastructure systems and ensure sustainable societies.

Each week-long institute will consist of 2–3 days of workshops and presentations by local and U.S. faculty to highlight protective systems success, 1–2 days of cultural and technical tours to give the U.S. students context to the performance of protective systems in recent natural hazards, and 2–3 days of collaborative group projects providing guided experiential learning experiences to implement a multidisciplinary project. To provide an introduction to the material, students will be expected to complete some online modules prior to departing for their February ASI.

16 U.S. graduate students will be joined by U.S. faculty mentors and local student and faculty hosts. To increase participation in the program, each graduate student will typically participate in only one ASI; a select few graduate students will be asked to participate in a second ASI.





The PREEMPTIVE ASI in Costa Rica will be held February 7–13, 2019, at the University of Costa Rica, in the capital city of San José. Costa Rica has been impacted by numerous natural hazards — seismic (2009 Cinchona M6.2 intra-plate, 2012 Samara M7.6 subduction), storms (2016 Hurricane Otto, 2017 Tropical Storm Nate), and volcanoes (Turrialba, Poas Volcano and, more recently, Rincón De La Vieja spewing ash since 2015) — coupled with aging infrastructure to provide a poignant foreshadow of what could happen in the U.S. if we do not address our own aging infrastructure problems through new investment of resources and innovative research-tested approaches. Discussions will explore using protective systems to provide resilience for aging infrastructure with limited resources, highlighting the need to engineer smarter and to better understand society's needs and constraints.

The U.S. National Science Foundation (NSF) has provided participant support (through grants OISE-1828948/-1829085) for graduate students at U.S. universities (who are U.S. citizens or permanent citizens) to participate

in the PREEMPTIVE ASI in Costa Rica. Funding (complying with NSF travel requirements) will cover: air ticket to/from Costa Rica (up to \$500); 7 hotel nights (at the ASI hotel); and the ASI registration fee.

**APPLY** Students in Civil/Structural Engineering, as well as other disciplines related to protective systems and disaster science (e.g., Mechanical Engineering, Electrical Engineering, Geology, Anthropology), who are advanced in their Ph.D. studies, have demonstrated excellence in scholarship, and are passionate about providing societies that are resilient to natural hazards, are encouraged to apply **by December 7, 2018**, by submitting at <https://goo.gl/forms/Q1nb1EWI9BFAJJK2> the following (you must log into your Google account to apply): your CV; your unofficial undergraduate and graduate transcripts; and a personal one-page statement, unique to the PREEMPTIVE Costa Rica ASI theme of Aging and Partially Damaged Infrastructure, demonstrating interest and relevance of the student's research to protective systems and multidisciplinary approaches to hazards mitigation and disaster science, the student's interest in engaging the global community in these efforts, and the uniqueness and diversity the student brings to the ASI. Additionally, each applicant must ensure that his/her advisor e-mail a letter of recommendation (that also notes institutional permission to be on travel for a week) to the organizers [preemptive@usc.edu](mailto:preemptive@usc.edu) **by December 7**.

