



2019 Network Research



Application Deadline: November 15, 2018

The Resilient Urban Latin America (RULA) International Research Experience for Students (IRES) project offers one undergraduate and three graduate students the opportunity to conduct eight to ten weeks of onsite research in an urban community facing climate extremes in Hermosillo, Mexico. Student researchers will work under the supervision of Dr. [Agustin Robles-Morua](#) of the Technological Institute of Sonora (ITSON). Students will also have the opportunity to network with other researchers, local practitioners and the urban planning agency ([IMPLAN](#)), which is our linkage with other local Mexican officials. For a full description, see the IRES call for proposals and applications on the URExSRN [Opportunities](#) page. Also, review testimonials from a UREx SRN graduate student and postdoc currently conducting research in Hermosillo, Mexico:

Graduate URExSRN student at ITSON investigates how knowledge systems work among the Hermosillo authorities to create strategies that reduce vulnerabilities of extreme climate events. According to the Intergovernmental Panel on Climate Change (IPCC), the impacts of extreme events (heat waves, droughts, and floods) will increase in urban areas. The research includes a knowledge-action system analysis through a survey instrument to understand the relationship between knowledge-makers and stakeholders to create future visions of the city. Study results will be shared with Hermosillo's stakeholders to provide support for future city plans and to provide site-specific information for the decision-making and improvement of ongoing communication programs. This research allows me to know in detail the decision-making processes among authorities and how the information is shared between them.



Being part of UREx has helped strengthen this study, due to possibility of interacting and learning from a diverse group of professionals who have helped my academic formation. The work is important to me because it allows me to emphasize climate change problems that the planet is experiencing and that we need to show how these problems affect the cities. This study also allowed me to develop communication skills and work with human subjects.

– Fernando Tandazo-Bustamante

URExSRN Postdoctoral researcher collaborates with the Portland State University URExSRN team on a heat wave mapping study in Hermosillo, Mexico. Current research includes how the physical factors of cities, such as location, green areas, infrastructure types, bodies of water, and building density and height impact the heat wave distribution in the city. Various URExSRN cities show that social vulnerability factors correlate with higher heat exposure areas. Development of landscape-based indicators of heat will demonstrate how the heat indicator is created and evaluated in relation to social indicators, like poverty; various cities show that study results will offer strategies to adapt to climate related extreme events in cities around the world that are facing similar climate extremes.



This study has helped me to improve my communication skills in order to be able to spread my research message with a broad kind of researchers from different countries. To be connected with a big network of researchers is always helpful for my career development; I receive very good feedback and new interesting ideas to improve my research. Being able to study and look at the practical perspective of my research within a multidisciplinary approach encourages me to understand different perspectives and learn a lot from other researchers and practitioners.

– Dr. Vivian Verduzco