

**TRACK NAME**

Sustainability Research, Education, and Community Engagement - GIOS

**SESSION NAME**

Urban Climate Research and Mitigation Strategies

**DATE + TIME + ROOM NUMBER**

Friday September 5<sup>th</sup> – 11:10am – 101C

**SESSION DESCRIPTION**

The Phoenix Metropolitan area experiences one of the most severe Urban Heat Islands effects in the world. This has major impacts on our comfort, health, water consumption and energy use. The good news is that there are several emerging strategies that city planners, architects and engineers can implement to help reduce this warming trend. Carlson's presentation reviews the major causes of urban climate change, discusses the impacts that are associated with such changes and provides promising mitigation strategies that are currently being recommended by the EPA, US Green Building Council and others for reducing the negative impacts of urban development on our local climate.

**PRESENTOR(s)**

Joby Carlson – ASU Global Institute of Sustainability

**PRESENTOR BIOGRAPHY (s)**

Joby Carlson is the research engineer and laboratory manager for the Center on SMART (Sustainable Materials and Renewable Technology) Innovations (<http://www.asusmart.com>). The center was recognized by the US Environmental Protection Agency as a National Center of Excellence in infrastructure materials and urban climate research. The center is under the Global Institute of Sustainability (<http://sustainable.asu.edu/>) with collaboration from the Ira A. Fulton School of Engineering, and College of Design at Arizona State University.

Carlson holds a bachelors degree in Mechanical Engineering and a Master of Science in Civil and Environmental Engineering. As a graduate student Carlson worked under Dr. Jay Golden of the School of Sustainability (GIOS) and Dr. Kamil Kaloush of Civil Engineering in the field of Urban Heat Island mitigation. He was also the founding president of the ASU Chapter of Engineers Without Borders (EWB), a humanitarian student organization that links engineering students with projects that benefit developing communities around the globe. Upon graduation, Carlson was hired full time by GIOS to continue research and guide undergraduate and graduate research for the center. Carlson is a registered Engineer in Training in Arizona and a LEED Accredited Professional.

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