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Energy and Climate Partnership of the Americas

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SENIOR FELLOWS

Maria-Paz Gutierrez

Assistant Professor

University of California Berkeley

ECPA Pillar of Concentration: Adaptation, Self-Regulated Building Systems

Languages: Spanish, Portuguese, English (fluent), French (intermediate)

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The Senior ECPA Fellows Program is funded by the US Department of State and fellowships are coordinated in collaboration with US Embassies throughout Latin America and the Caribbean.

FELLOW BIO: Maria-Paz Gutierrez

International Experience:

Prof. Gutierrez develops built work and research on sustainable building technologies and infrastructure innovations across the United States, South America, and Europe. Her expertise in the socioeconomical and environmental challenges in these regions has led her to participate extensively in global and regional forums in sustainable resource management and environmental policy. Her interdisciplinary collaborations involve academic, professional, governmental, and NGO partnerships that bridge fundamental and applied research innovations of building and urban systems for areas under extreme resource challenges.

Prof. Gutierrez has participated in international forums on greywater recycling in regions of extreme water scarcity; emergency sustainable housing in tropical flood risk zones; and future sustainable cities. She is currently researching new emergency housing for flood risk/seismic regions in Southern Chile and its potential contribution for new sustainable policies.

Areas of Expertise:

Prof. Gutierrez is an architect and researcher focused on establishing radically new sustainable building technologies and urban infrastructures. In 2008, she founded BIOMS, an interdisciplinary research group at UC Berkeley. BIOMS's research intersects architecture, engineering, and science to develop technologies that can shift the means with which energy and water can be provided, as well as how waste is processed in regions under extreme resource pressures. Through the pioneering integration of microengineering principles for building technologies, she is developing building systems that can generate energy, regenerate material resources, and selectively control thermal and light transmission. Her research emphasizes an integrative use of energy, water, and waste accomplished by highly sensitive building technologies.

Prof. Gutierrez's projects and research have been recognized by the field of architecture and engineering. She received the American Institute of Architects Academic Medal in 2001 and was a finalist for the prestigious 2011 eVolo Skyscraper International Competition. Her contributions as an educator in the field of interdisciplinary innovation of sustainability have been awarded nationally and internationally. She received the Blue Award 2009 First Prize, the 2011 Sarlo Distinguished Mentor Award, and the 2011 Bentley Educator of the Year for her exceptional contribution to advance architecture, engineering, and construction. Prof. Gutierrez is also a recipient of the prestigious 2010 Emerging Frontiers of Research Innovation grant by the U.S. National Science Foundation, and her research is funded by the U.S. Department of Energy and the U.S. Environmental Protection Agency. Prof. Gutierrez's collaborative research is published in architecture, engineering, and scientific journals. She is one of five U.S. Scholars selected for the first cohort of the 2011 Fulbright NEXUS Scholar Award for applied research.