

UCD's IGERT GOAL - Design, analysis and rapid diffusion of sustainable urban infrastructures of the future.

Scope	Thematic Areas	Design and Measurement [ENGR and URP]	Planning and Policy [URP and SPA]	Community Feedback and Implementation [HBS, SPA & CAP]	Team Members: Faculty and Students
<div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center;">System-Wide</div> <div style="border: 1px solid black; background-color: yellow; padding: 5px; text-align: center; margin-top: 10px;">Sector-Specific: Study links between 1 or 2 sectors</div>	<p>City-wide Climate Action Plans: Integration of all city infrastructure sectors with social actors for city wide carbon mitigation/adaptation</p>	<p>Energy and material flows, carbon footprints for US cities. <i>Global Work: Expand to global cities to model energy, water and carbon trajectories</i></p>	<p>Study agenda-setting, decision drivers, and plan-making process in city governments. Study institutional change in response to sustainability plans. <i>Adaptation Plans.</i></p>	<p><i>Study connections between diet, energy, health and well-being, and impact on interventions.</i> <i>Global Work: Study impact of globalization on these parameters.</i></p>	<p>FAC: Ramaswami, Main, Koester, Muller</p> <p>STU: Hillman, Chavez, Davis, Pattison, Manderino</p>
	<p>City-wide Vulnerability: Integration of all city infrastructure sectors with social actors to assess/mitigate city-wide vulnerability</p>	<p><i>Hazard assessment from natural hazards and infrastructure failures. Design of urban spaces for safety and security.</i></p>	<p><i>Social vulnerability from infrastructure failure. Social equity in infrastructure planning – how do planners plan for resilience and equity in the US and globally.</i></p>	<p><i>Health impacts from infrastructure vulnerabilities and inequities. Global: compare and contrast Chennai and Denver.</i></p>	<p>FAC: Thomas, Johnson, Karunanithi, Muller, Nemeth,</p>
	<p>Urban Food Systems study linking all underlying infrastructures</p>	<p>Modeling current and future urban food production and distribution infrastructures. <i>Global: Food Systems LCA in developing nations.</i></p>	<p>Local food policy; adaptive management in aquaculture.</p>	<p>Obesity, built environment, transport and food systems. <i>Global: Impact on health and well-being in US and Indian Cities.</i></p>	<p>FAC: Ren, Arun, Brett, Main, Weible, Clark</p> <p>STU: Knapp, Fisher, Miller, Siddiki</p>
	<p>Integrated Water, Energy, Waste Infrastructures: Linked infrastructure sectors</p>	<p><i>Design of innovative waste-to-energy infrastructures for generating urban bioenergy. Global: Linked Water–energy outlook in Colorado and India.</i></p>	<p>Planning and policy paradigms for urban distributed energy generation. <i>Urban water planning and policy for sustainability.</i></p>	<p>Public perceptions and health impacts of water and waste re-use.</p>	<p>FAC: Ren, Arun, Johnson, Muller, Rens</p> <p>STU: Kronoveter, Solis</p>
	<p>Integrated Land Use & Transport: Linked infrastructure sectors</p>	<p>Design and safety analysis of non-motorized infrastructures</p>	<p>This track centers around examining factors related to the provision and efficiency of sustainable modes of transport, focusing on bicycling, walking, transit use and other relevant dimensions of travel behavior.</p>	<p>See above: Obesity, built environment, transport and food systems.</p>	<p>FAC: Krizek, Janson, Muller</p> <p>STU: Nordback, Piatkowski, Duvall</p>

Table 1: Five thematic areas in UCD's IGERT on Sustainable Urban Infrastructure. Each thematic area includes teams of faculty and students studying these topics from different disciplinary angles. Some topics of strategic importance for 2009-2010 are shown in maroon.