City Tech Students Design and Build a Solar Home for the 2015 Solar Decathlon Competition

Brooklyn, NY—August 17, 2015—In 2012, Super-Storm Sandy showed that new models for housing that meet the needs of a high-density urban environment are desperately needed. A team of approximately 60 City Tech students is contributing their solution in a net-zero energy model home, as part of the U.S. Department of Energy's 2015 Solar Decathlon international competition. The model home—built on a donated site at the Brooklyn Navy Yard—will be shipped to California at the end of this month for the final phase of the competition. After the competition, City Tech will donate the retrofitted model home to a disabled veteran.

City Tech's team was selected as one of 20 student teams worldwide to compete in the two-year Solar Decathlon process to build solar-powered, energy efficient houses that combine affordability, innovation and design excellence. The College's team, called Team DURA (Diverse, Urban, Resilient, Adaptable), created the DURA house—a stackable design to provide relief after catastrophic storms that can also be used for mobile and low-income housing in urban areas—using materials never before used in the United States.

“A lot of our work has been inspired by our location,” said decathlete Evgenia Gorovaya, a sophomore studying environmental planning and math. “The qualities of diversity and being urban go hand-in-hand because City Tech is one of the most diverse colleges in the United States. And a lot of different mindsets went into developing our design.”

The DURA house design was developed through a multi-pronged approach: a hybrid of passive and active systems that can adapt to various configurations. Super-insulation, strategic window opening sizes and locations, an exceptionally tight envelope, and a smart mechanical system that harvests waste heat, combine to optimize performance and maximize occupant comfort for net-zero, affordable living in a dense, diverse environment. The home is adaptively designed with an open floor plan to allow for a greater range of flexibility for multiple configurations.

Team DURA students represent a wide range of departments at City Tech including Construction Management & Civil Engineering Technology, Mechanical Engineering Technology, Electrical Engineering Technology, Chemical Technology, Biological Sciences, Communication Design, Hospitality Management, Architectural Technology and Entertainment Technology. Team members also come from various CUNY colleges through the CUNY Service Corps program.

“The Solar Decathlon has been wonderful journey from the beginning—when students asked if it was possible to do something so ambitious—to the present—where we find ourselves collaborating with industry leaders and putting the final touches on the house,” said Professor Alexander Aptekar, Department of Architectural Technology, “Our students have grown so much both professionally and with their confidence over the course of the project.”
The only team from New York City, Team DURA is competing with those from Yale University, Oregon Institute of Technology, SUNY, University of Florida, National University of Singapore, The University of Texas/ Austin, Technische Universitaet Muenchen, University of California/Davis, University of California/Irvine, Vanderbilt University, and University of Roma Tor Vergata, among others.

To celebrate the completion of this phase of the competition, Team DURA is hosting a “Send-Off Party” on Thursday, August 27, 6 p.m. to 8 p.m., at the Brooklyn Navy Yard build site. Festivities will include a tour of the DURA home. For more details and to RSVP, go to: https://www.eventbrite.com/e/teamdura-sendoff-party-tickets-18089178219

See computer-generated images of the completed DURA house here: http://www.solardecathlon.gov/team_ny_city_tech.html


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About City Tech (New York City College of Technology)

City Tech, of The City University of New York, is the largest four-year public college of technology in the Northeast and a national model for technological education. City Tech has an enrollment of more than 17,000 students in 25 baccalaureate and 27 associate degree programs. For more information, visit www.citytech.cuny.edu.

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