POLITECNICO DI TORINO

PRESS RELEASE

"RESILIENT" HOMES TO WITHSTAND NATURAL DISASTERS: POLITECNICO DI TORINO TEAM WINS RESILIENT HOMES DESIGN CHALLENGE COMPETITION

The response of architects, engineers and designers to natural disasters in an international competition, in which the masters degree team in 'Architecture for sustainable projects' of the Politecnico ranked among the nine winners

Turin, 17 December 2018 - Since 1970, catastrophic events have quadrupled (*The Economist*) and in the US alone, the damage caused by hurricanes and fires amounted to 306 billion dollars in 2017. It is estimated that there are approx. 20 million refugees per year as a result of natural disasters; their number exceeds that of refugees due to wars and is continuously growing due to climate change.
With the intent of responding to the growing number of natural disasters affecting our planet, the **World Bank and United Nations - UN Habitat,** in partnership with **Airbnb, Build Academy** and **Global Facility for Disasters Reduction and Recovery** promoted the *Resilient Homes Design Challenge* competition, for the design of small affordable and sustainable homes that can be built at a cost of less than 10 thousand dollars.

Designers from all over the world were called to discuss a crucial issue at a global level: **homes for refugees due to natural disasters**.
The competition proposed the issue in a new way: *"transitional housing"*, i.e. overcome the traditional approach based on temporary refugee camps - which in reality are instead occupied for years if not forever - to see the relocation process as the beginning of a new evolutionary settlement, able to go from temporary to permanent, growing over time to meet needs ranging from the first shelter to the final home on the same piece of land. This new approach makes the design challenge exciting, because a permanent home requires comfort and resilience characteristics that a temporary shelter may not have, and because the reference to concrete places leads to considering real operational conditions - not just designing an architecture, but verifying its logistic, economic and construction feasibility.

The "Design within the limits of scarcity" final design studio of the master's degree in **'Architecture for sustainable projects' of the Politecnico di Torino** took up this challenge: 48 students from all over the world, enrolled at the Politecnico or here on an Erasmus or with double degree agreements, coordinated by **Francesca De Filippi** with **Roberto Pennacchio** (architecture technology), **Matteo Robiglio** and **Elena Vigliocco** with **Matteo Gianotti** (architectural and urban design) and **Marco Simonetti** (Environmental control systems) first developed competing project alternatives to then converge into three teams - one for each of the scenarios proposed by the competition, placed in different environmental and climatic contexts.

The **"Core House"** project coordinated by **Laura Munoz Tascon**, a Colombian student, developed an elegant, self-constructing, low-cost, high-sustainability bamboo house solution able to withstand recurring floods by lifting itself from the ground, thanks to an ingenious system of floats made of recycled materials.
The winners were announced last week and **the Politecnico team was one of the 9 winners out of more than 300 proposals** submitted; the winning projects will be invited for an exhibition at the headquarters of the World Bank in Washington DC and other international locations, and may be implemented and tested as part of World Bank interventions worldwide.

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