



In 2019, NCTU offered  
**46** related courses.

**3.6** citations per paper in 2019.  
Above the average (3.3) in Taiwan.



### Sustainable architecture which can exist in extreme climates

NCTU participated in Solar Decathlon Europe (SDE), an international competition. NCTU integrated different engineering and scientific fields such as architectural design, structural electromechanical engineering, energy efficiency simulation, energy conservation and environmental protection, and used Microclimate Controlling Core (MCC) cooling chip technology and cross-laminated timber to achieve the goal of carbon reduction, so as to soften the impact caused by the climate and environment on the traditional construction industry. In the stage of proposing during the competition, the intention of the proposal was to shed light on various aspects of the current urban situation in Taiwan, such as transportation, social structure, and forms of residence. The proposal aimed to improve living efficiency, function sharing, and environmental protection and energy saving by responding to the issues of overcrowding, separation and privatization, and climate crisis. In addition, considering local humanistic and social conditions, NCTU put forward a proposal of social housing project, which will be demonstrated in Taiwan and Germany in 2021 in the form of small-scale housing units.

### Special guest speaker of Chair Professor Peter Russell from Delft University of Technology: "Why digitization will save architecture and the planet"

NCTU's Transdisciplinary Design Innovation Shop (TDIS) and the Jut Foundation for Arts and Architecture jointly invited Peter Russell, a chair professor (former dean of the School of Architecture and Environment) from Delft University of Technology, Netherlands, to deliver a speech on "Why digitization will save architecture and the planet" in Taiwan in December 2019. The speech started from the application of digitalization in the construction industry nowadays and beyond, exploring the significance and importance of digitalization when facing the pressing issues of climate change and the rise of disruptive innovative technology.

