

原型實踐KEYSTONE B

原型實踐KEYSTONE D

寶藏巖輕量級工作營
TREASURE HILL TOPOLOGY WORKSHOP

抗震盃塔結構試作
EARTHQUAKE-RESISTANT TOWER PROJECT

小型飛行器實作
MICRO AIR VEHICLE PROJECT

臺南浮體結構工作營
TAINAN FLOATING STRUCTURE WORKSHOP

授課教師 吳東諭、卡艾璋

課程時間 星期五 7,8,9
+ 前四周密集工作營

學分 2



WEEKS 01-04
寶藏巖輕量級工作營「拓撲學」
TREASURE HILL TOPOLOGY WORKSHOP

WEEKS 05-10
小型飛行器實作
MICRO AIR VEHICLE PROJECT

WEEKS 10-16
抗震盃塔結構試作
EARTHQUAKE-RESISTANT TOWER

MAY 14-16
臺南北門浮體結構設計工作營
TAINAN FLOATING STRUCTURE DESIGN WORKSHOP

WEEKS 17-18
浮體結構設計審核
FLOATING STRUCTURE DESIGN CHECKS

JUNE 27-JULY 3
臺南北門浮體結構設計工作營 施工
BEIMEN FLOATING STRUCTURE CONSTRUCTION



Keystone B 本次課程與實踐大學建築系、北藝大新媒體藝術學系合作，以台大附近的寶藏巖作為基地，結合結構、建築、機構與燈光，設計及建造大尺度的裝置藝術。



課程暫停一段時間後，土木系學生須試照著抗震盃競賽之規則，設計製作小尺度抗震塔模型。



報名請在1/16(六)之前，掃描QR code並填寫表單。
Or contact Yu-Jun, Oscar, Huang (黃榆峻) <yjh1234@ntu.edu.tw>



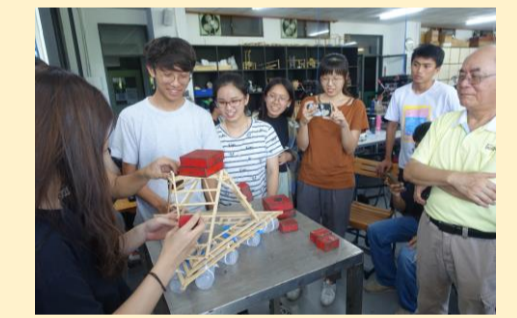
授課教師 卡艾璋、張國鎮

課程時間 星期五 7,8,9 +
五月中週末及暑假第一週工作營

學分 2

Keystone D參考去年比利時UCLouvain大學的實作課程，一開始會透過運用流體力學及3D列印，設計和測試流體驅動的發射器及螺旋槳飛行器。

在暑假的第一個禮拜，學生會與成大建築合作，參加位於台南北門的風力驅動浮體結構工作營。而五月中會有一個週末在台南做初步設計，並在後續的課程審核設計。



欲報名Keystone D的學生強烈建議同時修習卡艾璋老師開設的流體力學課程。

原型實踐 KEYSTONE B

寶藏巖輕量級工作營
TREASURE HILL TOPOLOGY WORKSHOP

抗震盃塔結構試作
EARTHQUAKE-RESISTANT TOWER PROJECT

Instructors: Tung-Yu Wu, Hervé Capart
Schedule: Friday 7,8,9
Intensive workshop during first 4 weeks
Credits: 2



This coming Spring 2021 semester, second year civil engineering students interested in design-build projects are invited to enroll in the following two optional courses, called Keystone B and D. The two courses will meet on Friday afternoon according to a staggered schedule, complemented by the intense workshops at the beginning and end of the semester. Students are free to enroll in only one of the courses, or both if they are highly motivated and confident they can afford the required time and effort. By using a mix of English and Chinese as needed, the two courses will welcome both Chinese-speaking and English-speaking students.

WEEKS 01-04
寶藏巖輕量級工作營「拓撲學」
TREASURE HILL TOPOLOGY WORKSHOP

WEEKS 05-10
小型飛行器實作
MICRO AIR VEHICLE PROJECT

WEEKS 10-16
抗震盃塔結構試作
EARTHQUAKE-RESISTANT TOWER

MAY 14-16
臺南北門浮體結構設計工作營
TAINAN FLOATING STRUCTURE DESIGN WORKSHOP

WEEKS 17-18
浮體結構設計審核
FLOATING STRUCTURE DESIGN CHECKS

JUNE 27-JULY 3
臺南北門浮體結構設計工作營 施工
BEIMEN FLOATING STRUCTURE CONSTRUCTION



Keystone B will start with a scale 1:1 structural art installation project. Working in teams together with architecture students from Shih-Chien University and digital arts students from Taipei National University of the Arts, student will design and build a large scale art installation blending structure, architecture, automation and lighting, to be sited at Treasure Hill near the NTU campus.



After a pause, civil engineering students will then design and build a small-scale earthquake resistant tower model, following the rules of NCREE's IDEERS competition.



To sign up, please scan the QR code and fill the form preferably before Saturday, January 16.
Or contact Yu-Jun, Oscar, Huang (黃榆峻) <yjh1234@ntu.edu.tw>

原型實踐 KEYSTONE D

小型飛行器實作
MICRO AIR VEHICLE PROJECT

臺南浮體結構工作營
TAINAN FLOATING STRUCTURE WORKSHOP

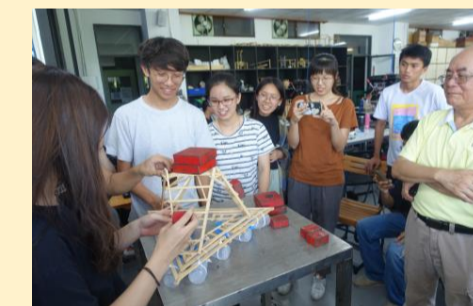


Instructors: Hervé Capart, Kuo-Cheng Chang
Schedule: Friday 7,8,9 + A weekend in mid-May & 1st week of summer vacation
Credits: 2



Keystone D will start with a micro air vehicle project inspired from a design-build project experimented last year at UCLouvain, Belgium. Using fluid mechanics principles and 3D printing, civil engineering students will design, build and test a fluid-powered launcher and propeller.

The first week of summer vacation, students will then work with architecture students from National Cheng Kung University to build wind-activated floats for a salt pond in Beimen, Southern Taiwan. Preparation for this workshop will take place through a week-end design workshop in Tainan in mid-May and some design checks after the workshop.



Students wishing to enroll in Keystone D are strongly encouraged to enroll in parallel in the Fluid mechanics course taught by Prof. Hervé Capart.