

WOODEN STRUCTURE DESIGN

KEYSTONE D

Instructors: Masatoshi Tomita and Hervé Capart

Instructors: Hervé Capart and Kuo-Chun Chang

Credits: 3

Credits: 2

Schedule:

Schedule:

Wednesday A,B,C (whole semester)

Friday 7,8,9 (April to June)

Friday 7,8,9 (March only)

week-end workshop in Tainan (May)

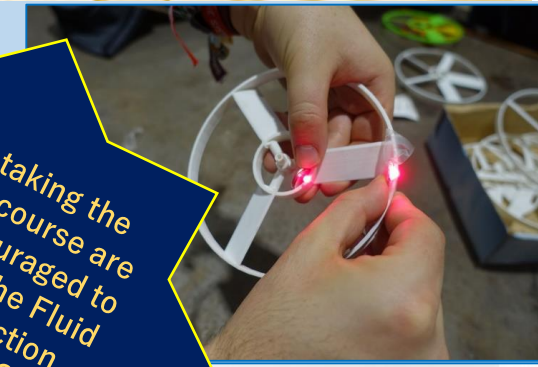
week-long workshop in Beimen (after final exams week)



Part of the Wood Construction minor, the optional course Wooden Structure Design is aimed at 2nd to 4th year undergraduate students interested in structural and architectural design involving wood as a principal construction material. In addition to learning basic aspects of wood structure design, the course lets students develop their own structural design proposals, individually and in teams, testing these proposals by building prototypes in wood. The course will include 2 projects:

The Keystone D course is an optional hands-on course that lets students pursue design-build projects based on the principles of fluid and solid mechanics. The course will include 2 projects:

Students taking the Keystone D course are strongly encouraged to enroll also in the Fluid Mechanics section taught by Prof. H. Capart



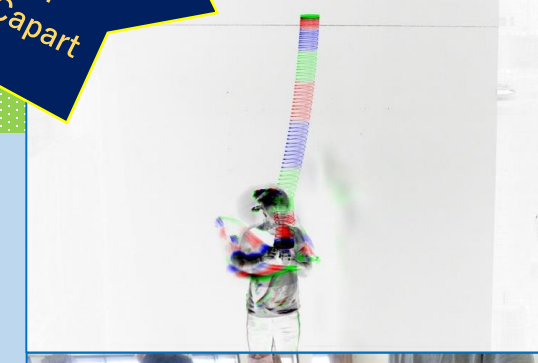
Treasure Hill 輕量級project

Project 1

Flying Rotors

In March, Students will collaborate with students from the Dept. of Architecture of Shih-Chien University during an intensive three-week workshop, devoted to the design and construction of structural installations for the Treasure Hill site, close the NTU campus.

For this project, students will work in teams to design and build small flying rotors, launched from the ground. The devices will be fabricated using 3D printing, modelled based on fluid and solid dynamics principles, and their performance evaluated using video-recorded test flights.



Forest observation tower project

Project 2

Floating Structures

Students will have three months(from April to June) to develop design proposals for a forest observation tower, to be sited in the Xitou Nature Education Area of NTU Experimental Forest. The project will include the fabrication and testing of small and large structural scale models.

For the second project, students will collaborate with students from the Dept of Architecture of NCKU to design and build floating structures for a lagoon in Beimen. As part of the design process, students will need to check the structural and hydrostatic stability of the floating structure.



To sign up:
Interested students are invited to register for the course via the NTU online registration system. For questions, please contact Prof. Herve Capart via email (hcapart@yahoo.com).

To sign up for this course, please scan the QR code and fill the sign-up form. If any question, please email TA Oscar (yih1234@ntu.edu.tw). Students who sign up before January 24, 2022 will have priority in case the maximum enrollment is exceeded.



sign-up form

