

Arch534 Advanced Computer-aided Architectural Design

Spring 2017, Section 1, 1735005, 3 Credits, 1/9/2017-5/5/2017 -- **Digital Media Minor Credits**
@ 9:30am-10:50am in Rm 434, CoD, by CSChan, Ph.D.

Two components of digital media had been explored historically and explicitly in the class. One is “motion in design product”, and the other one is “design through motion”. “Motion existing in design products” relates to the methods, impacts, and effects of putting motion into design, whereas “design through motion” refers to the design of motion and action. Motion that existed in design products could be accomplished by animation (will go through a series of videos), whereas design through motion could be done by utilizing motion capture to catch the motion data (will also watch videos) or by utilizing parametric modeling to catch the results of movement. This semester, **parametric modeling for accomplishing motion in design** is the focus. This Arch534 course satisfies the Digital Media Minor required credits.

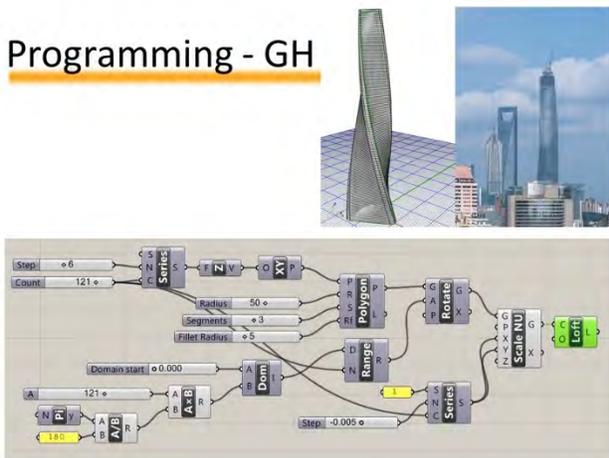
This course will cover three major components of parametric modeling in architectural design to visualize the motion in design. The first component is **Rhino modeling**, the second one is **Grasshopper applications** in Rhino, and the third one is **Python Programming**. The Python programming will introduce concepts of programming in architecture and its interaction with Grasshopper in Rhino.

It is expected to work in Rhino to generate a design for the purposes of equipping yourself with a good knowledge and skills on parametric modeling. You have to “spend time” to exercise and to experiment for being able to fully control the use of the systems, particularly on consciously utilizing and formalizing design logic and reasoning.

Software: Rhino, Grasshopper, Python

Here is the Grasshopper generation of Shanghai Tower designed by Gensler and the Python coding for interacting the Grasshopper with Python codes in Rhino...

Programming - GH



Programming - Python

