ARCH 576 Performance and Design: Parametric Integration

CRN: 65544 || Section: PIN
Tuesday, 9:30am -12:20pm
Room # 102B @ Architecture Building

INSTRUCTOR
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DESCRIPTION
This course develops techniques for integrating environmental performance analysis and the design of buildings, with an emphasis on parametric methods. Performance analysis techniques can provide enormous amounts of information to support the design process, acting as feedback mechanisms for improved performance, but careful interpretation and implementation are required to achieve better buildings. Parametric descriptions will be combined with decision-making methods to achieve more complete integration.

Students will begin by using analytical tools to examine the environmental performance of existing buildings. Following the results of the analysis, the students will develop high-performance goals and use analytical tools to develop an initial design proposal. Different decision-making and parametric form control methods will then be introduced to achieve high performance designs.

State-of-the-art computer models for building simulation will be introduced. This will provide students with an understanding of building design simulation methods and numerical computer modeling will be introduced to support decision making. Both building simulation and decision making model will be integrate to perform parametric design.

Final Project Example