



TEX-FAB 2015 HOUSTON

Parametric Facades Workshop

HKS Line, Instructors

Saturday, 3/28/15 (9:00am-1:00pm and 2:00pm-6:00pm) and Sunday, 3/29/15 (9:00am-1:00pm)

Workshop Outline:

Saturday:

HKS LINE Introduction

Overview: Current State of Simulation in Practice

Overview: Workflows and Best Practices

Overview: Integration of Parametric and simulation toolsets in the design process

Overview: LadyBug + Honeybee

Exercise: First LadyBug Analysis

Exercise: First Honeybee Simulation

Introduction to LBNL Glazing Database

Exercise: Glazing Simulations (Irradiation + Daylighting)

Exercise: Shading Simulations (Irradiation + Daylighting)

Sunday:

Exercise: Facade development with Grasshopper + LB/HB
(Shading optimization + Glazing Optimization)

Exercise: Adaptation for use with Genetic Solvers (Octopus)

Software Required:

Rhino 5

- Grasshopper (<http://www.grasshopper3d.com/page/download-1>)
- GHPython (<http://www.food4rhino.com/project/ghpython?ufh>)
- Octopus (<http://www.food4rhino.com/project/octopus?ufh>)

HoneyBee / LadyBug (<http://www.food4rhino.com/project/ladybug-Honeybee?ufh>)

- EnergyPlus
(http://apps1.eere.energy.gov/buildings/energyplus/energyplus_download.cfm)
- Evalglare (http://www.ise.fraunhofer.de/en/downloads-englisch/software/evalglare_windows.zip/at_download/file)
- Daysim (<http://daysim.ning.com/page/download>)
- Radiance (<https://github.com/NREL/Radiance/releases/download/4.2.2/radiance-4.2.2-win32.exe>)
- FalseColor: (<http://pyrat.googlecode.com/files/falsecolor2.exe>)
- Optics 6 (<https://windows.lbl.gov/software/optics/optics.html>)