

Building Simulation Assignment

Weather Analysis (Program Files>Autodesk>Ecotect>Weather tools)

In a word document present following information for the following:

1. Climate Type of your weather file (Philippines-MANILA)
2. Hottest day
3. Humidity over the year.
4. Wind Direction
5. Recommend passive cooling strategies for climate

Autodesk ECOTECT

Office Building

Design a small two-storey architect's office building in ECOTECT with a pitched roof.

The building should contain:

- 1 pantry
- 2 workshop/ studio
- 1 conference/ meeting room
- 2 rest room
- other rooms seen necessary.

Draw the building design concerning to the following aspects:

Wind

Describe the wind pattern for your house and which side of the office building is the windiest

Sun lighting

Show the annual sun path over the office.

Show the best-suited area in the garden to sit in the sun on your birthday (place the point tool outside the building> calculate> sun-path> shading)

Day lighting

For any room show the lighting levels and daylight factor

Make sure that the room has a lighting level of at least 300 Lux over 90% of the time from 8:30 to 16:30.

Design a shading device for any given window (that receives direct sunlight)

Thermal properties

Test the office using two different materials for the walls.

Presentation

Present all information as a word document with a short description to each point. Include your wea file as well as ecotect file in a mail to moediartianto@gmail.com Cc. ssnaing@dlsud.edu.ph