Agradecimientos

Contenido

Lista de Figuras

Capítulo 1

Introducción

1.1. Objectives

General objective:
Implement, validate y documentate a direct evaporative cooling model in energy plus.
Especific objectives:

- Describe the direct evaporative cooling model to be implemented.
- Develop a simulation model for the direct evaporative cooling strategy.
- Implement the direct evaporative cooling model into EnergyPlus.
- Validate model with experiments Elaborate a detailed implementation methodology for the model.

1.2. Thermal comfort and building energy consumption

1.3. Evaporative cooling

- What is it? and where it is applied
- Diference between direct and indirect
- Current technology

1.4. Buildings simulations and EnergyPlus

- Importance of building simulations
- EnergyPlus description

1.5. Motivation

- Evaporative cooling in EnergyPlus
- Pappit description (?)

  PAPIIT, si, que eres participe de ese proyecto, y tiene que ir el numero del proyecto y el nombre en los agradecimientos, por la beca.

Capítulo 2

Literature review

2.1. Psychrometric aspects

- Ideal gases
- Mixed gases
- Psychrometric aspects
  - Air-vapour mix
  - Dalton law
  - Humidity ratio
  - Relative humidity
  - Enthalpy of atmospheric air
  - Psychrometric chart and different temperatures.

2.2. Air conditioning of spaces and thermal comfort

2.3. Direct evaporative cooling

2.4. Energy plus

Capítulo 3

Methodology

3.1. Project description

- Papiit
- Temixco
- Grafica de radiación
- Hay potencial
- cafetería modeling
- aspersores, direct evaporative modelling, foto del osm

This thesis work is part of the Papiit project, Estudio teórico-experimental del enfriamiento evaporativo en eficicaciones. Objetivo de Papiit.

The experiments were carried out with data of Temixco. Temixco is a city located in the mexican state of Morelos, it has a latitud of 18.85°, longitud of -99.22° and 1253 MSL. According to the population and housing census made in 2020 by the Instituto Nacional de Estadística, Geografía e Informática (INEGI)[1]the city has a population of 122,263 people. Weather

3.2. Numerical experiments

Hay que esperar un poco, pero podría ser numerical simulation and validation... pero ya que tengamos más información lo consideramos.

También hay que considerar si habrá algunos apéndices, reportando tus libretas, me parece interesante documentar tu proceso de aprendizaje.

3.3. Validation process

Capítulo 4

Results

Capítulo 5

Conclusions