

# why environmental and energy engineering?



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# ROADMAP

Why this master/course?

Which master thesis theme?

How to choose your supervisor?

What comes next to the master?

# after looking in all corners....

I ending in Ciências ULisboa

- 2013 starts a new adventure in a course where environment and energy are merged
- 2017 a building challenge starts



# Ars sine scientia nihil est

Jean Mignot, 14th C

# Less is more

Mies van der Rohe, 20th C



Bacardi Office Mexico, 1950



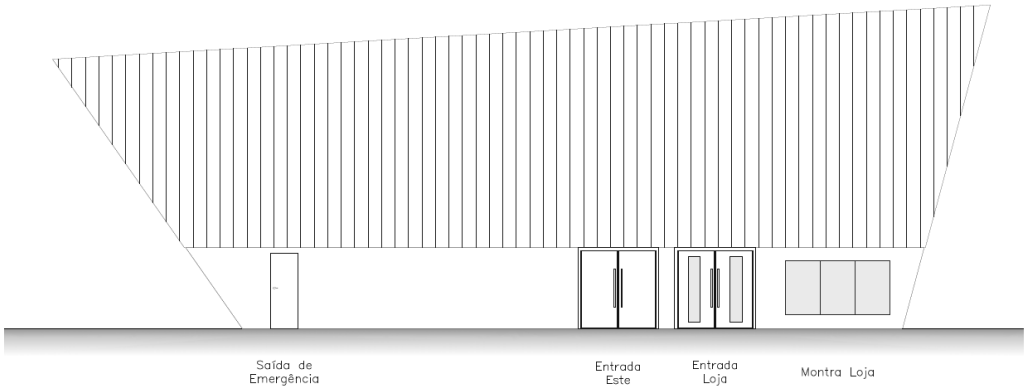
# MASTER THESIS THEME



# design a building...



2017



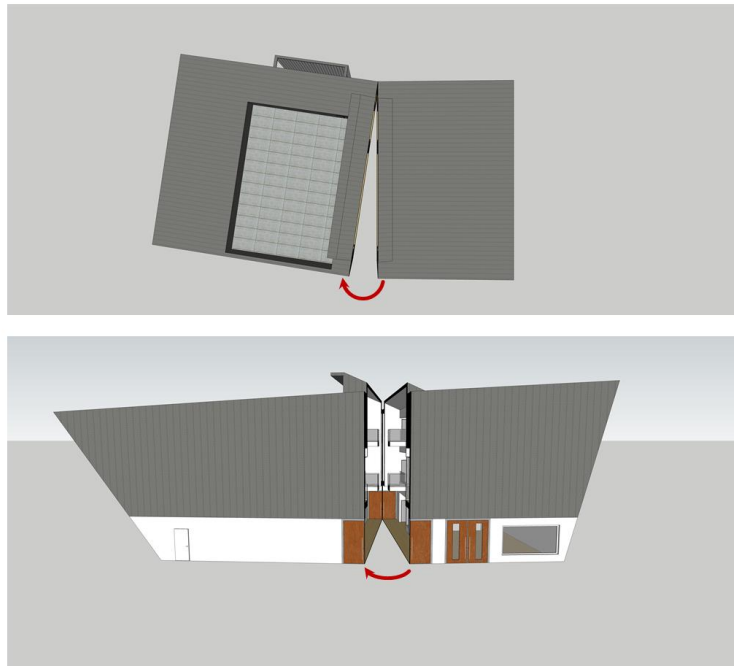
2018

# design a building...



# design a building...

## architecture





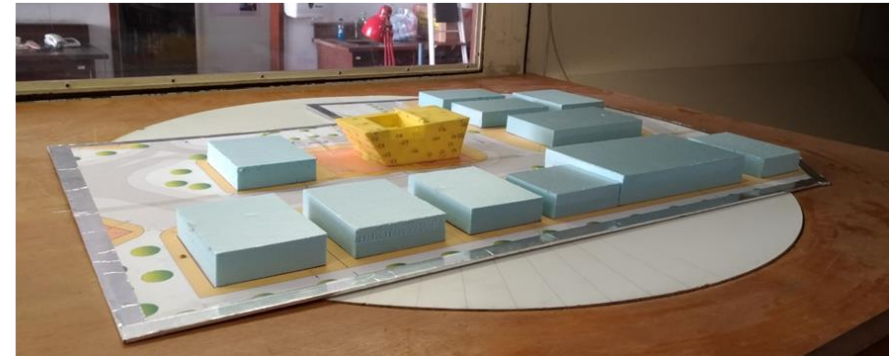
# design a building... aerodynamics



ENSAIO NÃO URBANIZADO



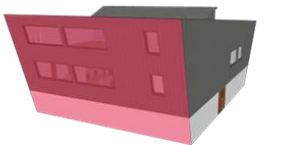
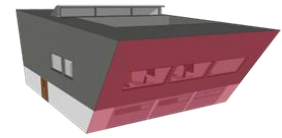
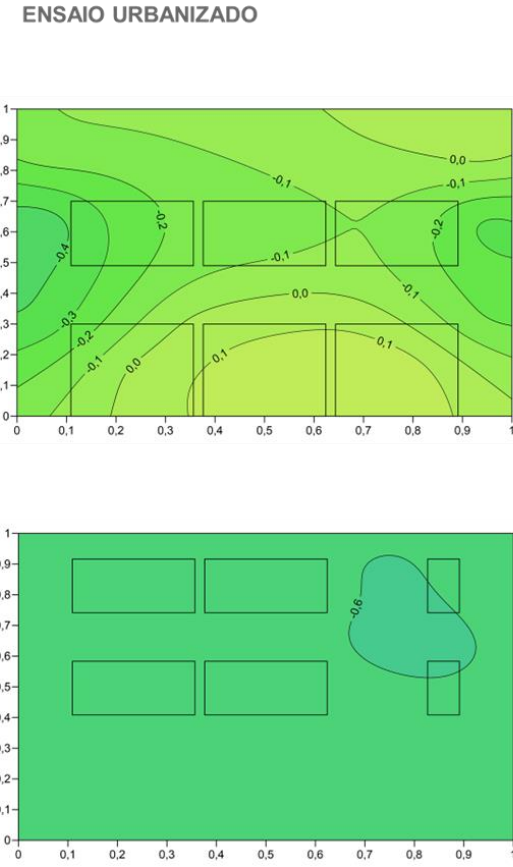
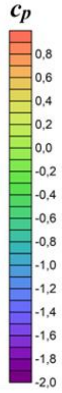
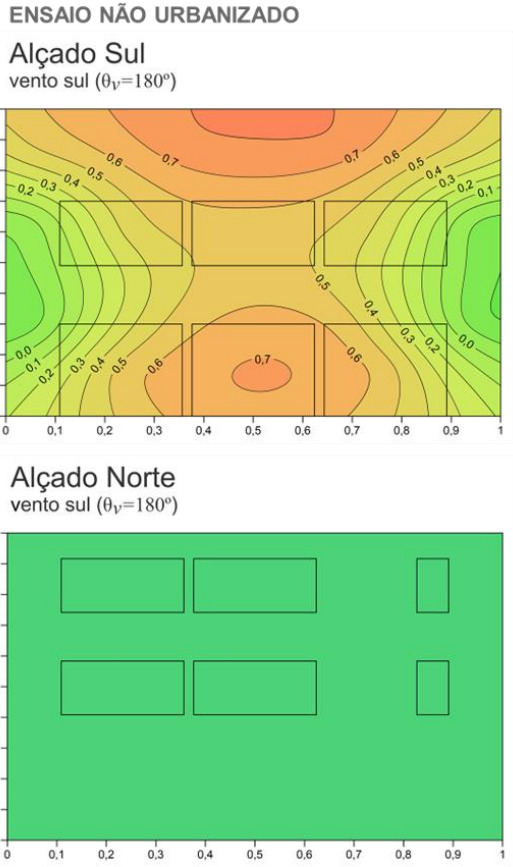
ENSAIO URBANIZADO



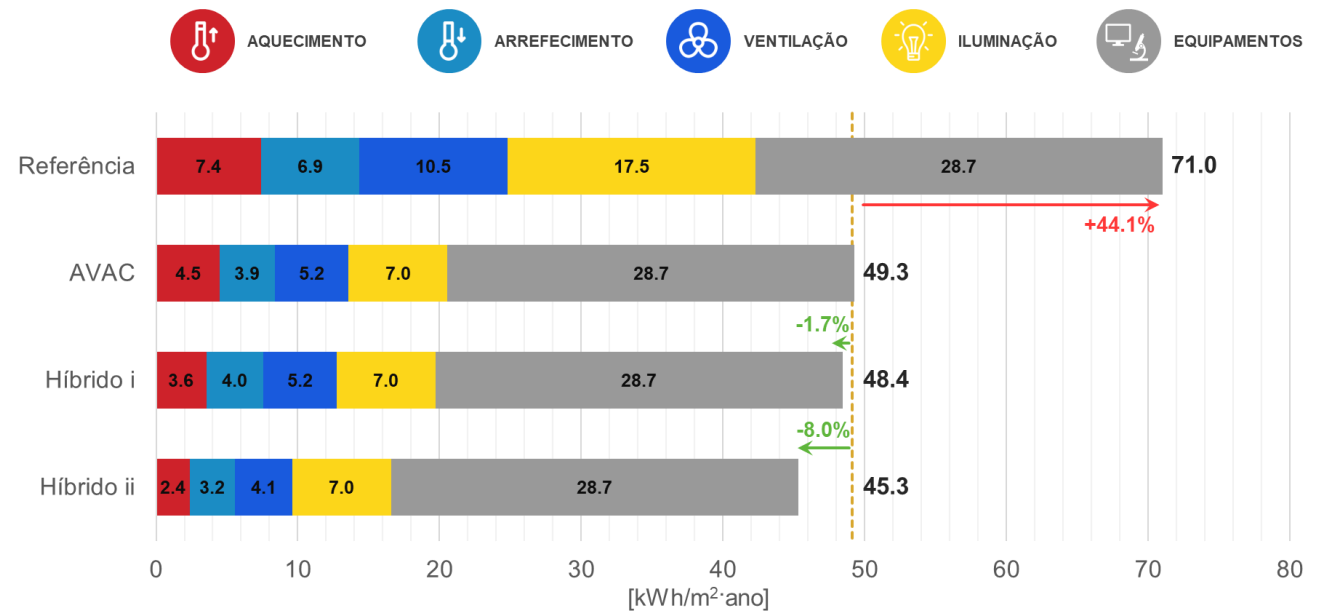
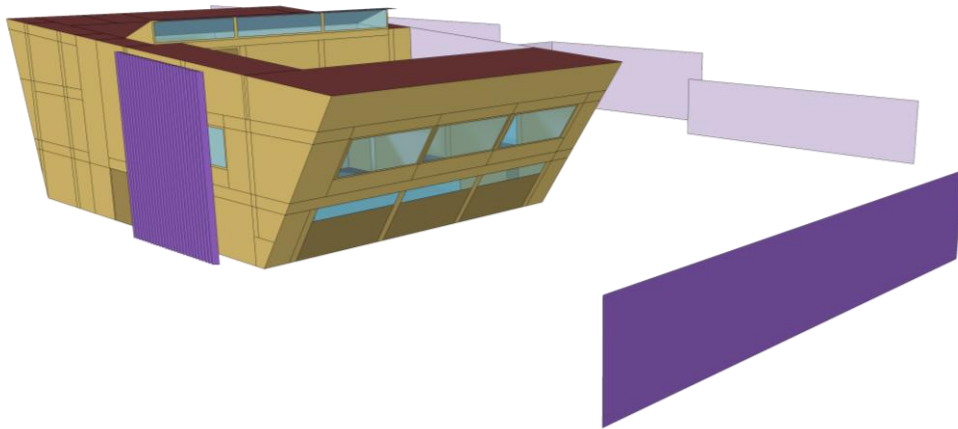
MAQUETE E EQUIPAMENTOS



# design a building... aerodynamics

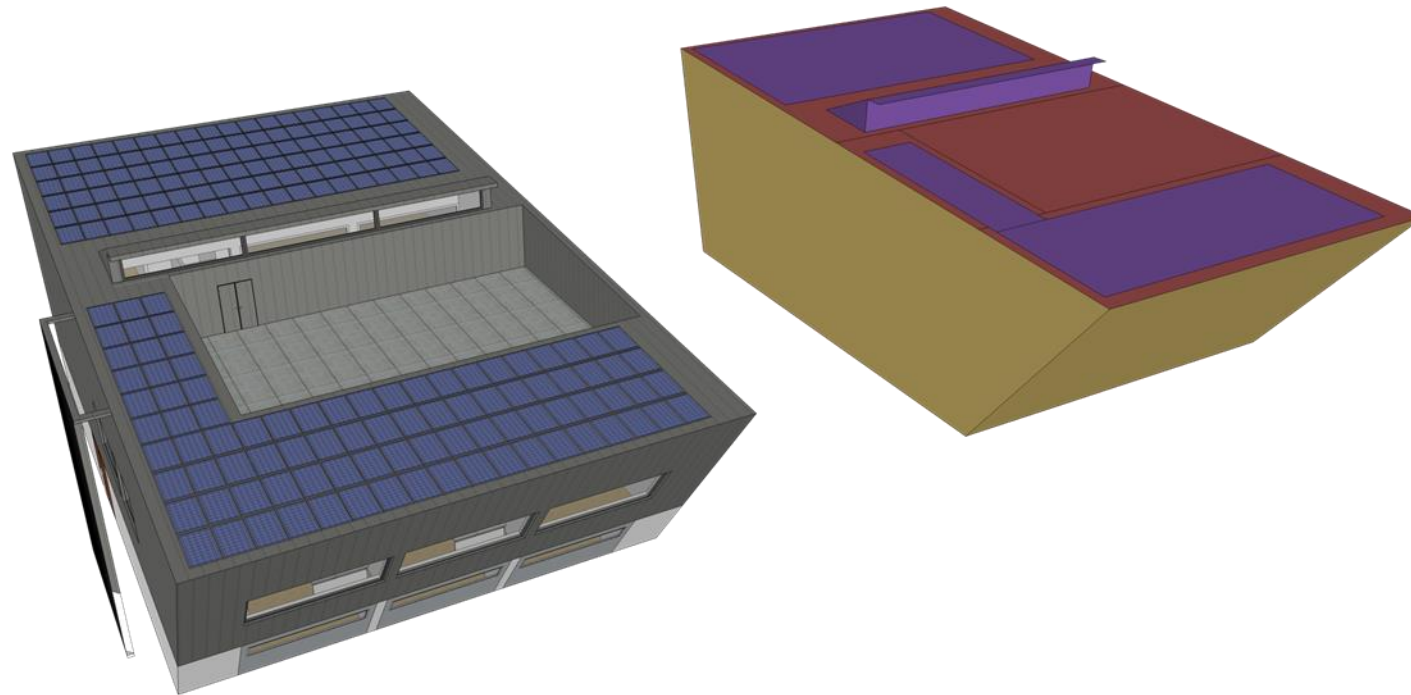


# design a building... energy performance



# design a building...

## integration of renewable power



# design a building...

## a new energy classification system



# CHOOSING YOUR SUPERVISOR



# a team to design a building...



Me



Marta Oliveira Panão  
PhD, Assistant Professor

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**internal supervisors**



LABORATÓRIO NACIONAL  
DE ENGENHARIA CIVIL



Fernando Marques da Silva  
PhD, Aux. Research Officer

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**external supervisors**



ISABEL AIRES E JOSÉ CID  
arquitectos



José Cid  
Architecture



# Resumé

## Before the master

2013 to 2015 EF Ambassador in Portugal

2013 to 2019 PV System Technician (sporadic)

## After the master

2019 Energy Consultant

Starts the PhD in ULisboa

2021 Stops the PhD in ULisboa

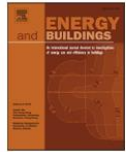
Energy Engineering Consultant

Moves to Spain and starts a new PhD at the University of Seville

2022 Assistant Researcher and Lecturer at the University of Seville



# lasted works



Rafael Monge Palma et al., **Extending the concept of high-performance buildings to existing dwellings**, *Energy and Buildings*, 2023, <https://doi.org/10.1016/j.enbuild.2023.113431>



*applied sciences*

Rafael Monge Palma et al., **Extending the Thermal Comfort Band in Residential Buildings: A Strategy towards a Less Energy-Intensive Society**, *Applied Sciences*, 2023, <https://doi.org/10.3390/app13127020>



Rafael Monge Palma et al., **Addressing the control challenge of energy systems in built environment areas**, *Science Talks*, 2023, <https://doi.org/10.1016/j.sctalk.2023.100247>

research projects

+



2020-2021



2020-2021



2022-



2022-

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# THANK YOU

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