

Internship in Mechanical Engineering

Supervisor	Prof. Dr. Paulo Roberto Wander
Project	Buildings Energy Efficiency
Description	Buildings are great energy consumers and there are many studies to reduce its energy consumption or even generate its own energy. These are called NZEB – Near Zero Energy Buildings and its viability is obtained through high efficiency and in-site energy generation. Understanding energy consumption profile and the effects of different materials and equipment throughout the year is important to obtain valuable data and compare alternative options.
Tasks	Most part of the work will be done using specialized softwares, like EnergyPlus and Sketchup, to model the building and generate results for the studies. Also some field work to collect data in buildings performance laboratories will be necessary. Another source of information are technical literature, like books, journals, standards and others.
Requirements	<ul style="list-style-type: none"> • Students of Mechanical Engineering • Undergraduate student (at least beginning of the 2nd year) • Basic skills in scientific working (information technology, basic simulation softwares)
Language Skills	English (Portuguese would be nice, but is not necessary).
Duration	4 months
Possible Beginning	February/July
Credits	According to agreement
Payment	None