ENERGY in BUILDINGS 2017

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Ilia Lampro MSc Mechanical Engineer Title: Technical adviser at Toyota, Athens, Greece email: iliaslabrou@yahoo.gr Presentation title: Comparative Study of HVAC Systems in an Office Building in Greece based on Energy Simulations

Efficient operation of an air conditioning system depends on various parameters such as desired thermal comfort indoor conditions, local weather conditions and operational system performance. Proper system design, capital cost and installation complexity are important issues, while environmental impact is also of concern. A typical office building in Greece is selected as case study to perform comparison of seven popular air conditioning systems. Design heating and cooling loads are calculated for the building assuming its location to be at the four climatic zones in Greece and annual building loads are ompared. For each of the systems under comparison, the complete design and installation in the building is designed. Annual energy simulations are performed by means of appropriate software and the corresponding energy consumptions are compared. The systems are also compared form a cost analysis point of view, as well as with respect to their environmental impact.

CV:

Ilia Lampro was born in 27 August, 1988 at Vlore of Albania. He is MSc Mechanical Engineer. He was ranked at TEI of Athens in 2008 with entrance exams and finished his studies in 2012 at the Energy Technology Department of the Faculty of Technological Applications. Furthermore, he completed pedagogical studies at ASPAITE of Athens in 2014 and then received his master in Energy Technology by a joint MSc program of Heriot Watt University and TEI of Athens in 2016. He is experienced in car engineering, in service, repair, fault diagnosis, part and accessories installation and also as a technical advisor, having worked at OSY (transportation organization of Athens), Mercedes Benz and Toyota Paspaliaris. He has also experience as Mechanical Engineer in the air conditioning section having worked at AHI Carrier SEE. He talks Albanian and Greek as native languages, as well as the English language.

Research works

- Lampro I., Zachariou N., Batchelor Thesis, TEI Athens, 2012, Energy study of three floor residential building in Ekali of Attica Greece.
- I. Lampro, "Performance comparison of various air conditioning systems for the same building in different climatic zones in Greece", MSc Thesis, MSc in Energy, Herriot-Watt University, School of Engineering and Physical Sciences, 2015.
- I. Lampro and D. G. Koubogiannis, "Comparison of different Air Conditioning Systems implemented in a typical office building in Greece", International Conference 'Science in Technology' SCinTE 2015, 5-7 November, Greece (poster presentation).