


Event:
Date:
Place:

ENERGY in BUILDINGS – Northern Hellas 2018

Saturday May 5, 2018

Thessaloniki, Hellas



#	Christos Gekas Mechanical Engineer NTUA	
Title:	AE Academy Supervisor, LG Electronics, Athens, Greece	
email:	christos.gekas@lge.com	
Presentation title:	Energy Saving and Comfort Level Optimization Through Relative Humidity Sensing in Variable Refrigerant Flow Systems.	
<p>The spread of climate control technology in the latter half of the 20th century helped raise the standard of living across the globe as happiness and productivity soared due to solutions that were able to make any environment more comfortable. However, many do not realize that the effective climate control required to create a comfortable environment involves much more than simply regulating temperature. While many top-of-the-line VRF solutions are designed to keep temperatures under control, efficiently creating the ideal environment also involves tackling humidity head on. After all, even if a VRF is able to maintain a constant temperature, humidity plays a key role in determining relative comfort levels.</p> <p>This has a number of practical applications, as the need to combat humidity is felt even more acutely at production facilities since these same productivity concerns apply to costly equipment and machinery as well as employees.</p> <p>However, most VRFs don't take room humidity into account when calculating airflow output. This can cause users to overuse their air conditioner as they seek to create a comfortable temperature. Similarly, in rooms that have lower levels of humidity, air conditioners may be able to operate at lower levels despite the user tendency to turn up the AC at every opportunity.</p> <p>This presentation addresses these exact issues and will demonstrate how dual sensing control of both temperature and humidity raises user comfort while increasing control, allowing the VRF system to perform real time climate evaluations down to the smallest detail. This comprehensive understanding of its surroundings helps the system tailor its performance to achieve optimal energy efficiency and indoor comfort levels.</p> <p>Moreover, it makes it possible to control the outdoor unit's discharge refrigerant temperature, increasing energy efficiency.</p>		
CV:	<p>Graduated from Mechanical Engineering Department of the National Technical University of Athens.</p> <p>From 1999 up to 2007 he worked at FG Europe as a sales engineer</p> <p>From 2007 he has been working in LG Electronics as Air-Conditioning Academy Supervisor in charge of the training program.</p> <p>In addition, he is in charge of coordinating pre-sales and after-sales technical support.</p>	