AUA TECH TRANSFER prOjecTT

AUA
Agricultural University of Athens
Project of Technology Transfer

Connecting Scientific research with Business ideas

PROJECT TITLE

"Energy Aware Intelligent Buildings"

BACKGROUND

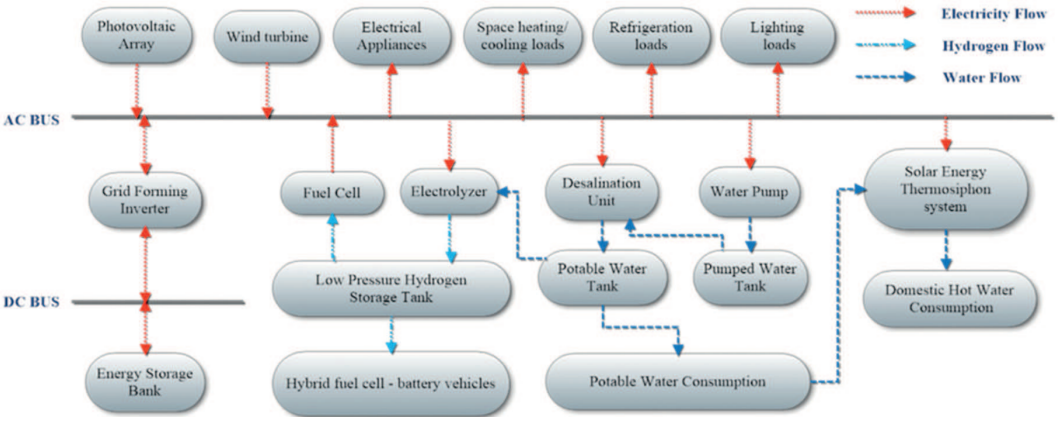
Current trend aims in the long run to achieve **zero energy** or vvv **positive energy buildings** considering the life cycle of the building. This implies energy production, usually from PVs or biomass, at the building level. The main needs in a building can be summarized as: thermal energy for space heating and cooling, hot water production, electrical power for appliances and equipment, water pumping and desalination, onsite fuel production.

CURRENT SITUATION

- Turn-key solutions available mainly in the market for large commercial buildings.
- For smaller buildings those products are usually ignored due to their high cost → **untapped market**
- High availability of competitively priced sensors and actuators that are based on open standards like KNX, Lonworks and Enocean.
- Open source electronics platforms, like Arduino, can be used in order to implement advanced logic management systems based on the use of sensors and actuators following the above mentioned standards.

PROPOSED APPROACH

Creation of a software platform, which follows cleanweb principles and is able to design and optimize automatically in an unattended manner **intelligent building energy management** systems both in **hardware** and in **software**, based on the inputs that are given by the user, utilizing open standards and open source electronic platforms managing to **reduce costs** for the deployment of such systems especially for **medium and smaller size buildings.**



OUR TEAM

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