

LIFE IN SMART BUILDINGS BY HOBNET





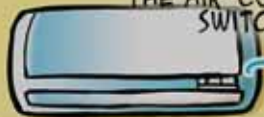
The main objective of HOBNET is to ease and maximize the use of FIRE (Future Internet, Research and Experimentation) platforms by multidisciplinary developers of Future Internet applications focused on automation and energy efficiency for smart/green buildings.

The project's research addresses algorithmic, networking and application development aspects of Future Internet systems of tiny embedded devices: a) an all IPv6/6LoWPAN network infrastructure of buildings and how IPv6 can integrate heterogeneous technology (sensors, actuators, mobile devices etc.) b) 6lowApp and its standardization towards a new embedded application protocol for building automation c) novel algorithmic models and scalable solutions for energy efficiency and radiation awareness, data dissemination, localization and mobility d) rapid development and integration of building management applications e) support for the deployment and monitoring of resulting applications on FIRE test beds.

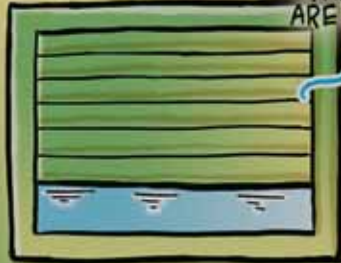
LOCAL ADAPTATION TO PRESENCE

THE ROOM ENVIRONMENT ADAPTS TO HUMAN PRESENCE.

THE AIR-CONDITIONING
SWITCHES ON



THE BLINDS
ARE ADJUSTED



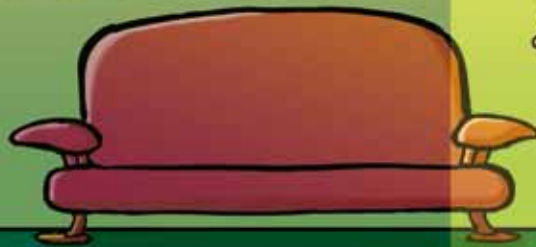
THE LIGHTS LEVEL ADAPT
ON THE HUMAN POSITION.
THE LIGHT LEVEL IS HIGH
ENOUGH IN THE AREA OF
HUMAN PRESENCE FOR
COMFORT REASONS WHILE
IT'S REDUCED IN OTHER
AREAS TO ACHIEVE
BETTER ENERGY EFFICIENCY.



ELECTRIC APPLIANCES
SWITCH ON



HERE, ONE THING IS MISSING ONLY:
AUTOMATIC OFFERING OF A MASSAGE.



ELECTRIC DEVICE MONITORING

ELECTRIC DEVICES THAT ARE IN SLEEP MODE, CAN BE AUTOMATICALLY SWITCHED OFF TO SAVE ENERGY. THE TV AND WASHING MACHINE ARE SWITCHED ON WHEN PERSON IS IN THE ROOM. ONCE THE PERSON LEAVES THE ROOM, THE TV IS SWITCHED OFF AND WASHING MACHINE IS STILL RUNNING UNTIL THE PROGRAM TERMINATION AND THEN SWITCHES OFF

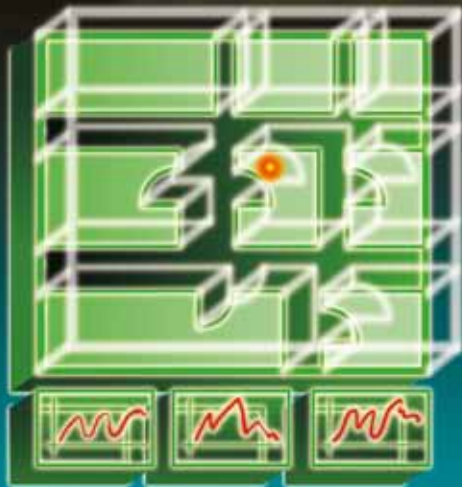
IN THIS BUILDING YOU DON'T HAVE TO VELL AT ME 'CAUSE I FORGOT TO SWITCH OFF SOMETHING.

ONLY IF BUILDING
COULD COLLECT
DIRTY SOCKS TOO!



BUILDING 3D VISUALISATION AND MONITORING

THE SYSTEM PROVIDES A 3D VISUALISATION OF THE BUILDING ENABLING THE PERSON TO MONITOR AND DISPLAY THE VARIOUS ASPECTS (E.G. THE TEMPERATURE OF EACH ROOM, HUMAN PRESENCE AND ENERGY CONSUMPTION).



HEY, DON'T
MESS AROUND!



NO 3D
VISUALISATION!

USER AWARENESS

THE STANDARD TOUCH SCREEN IN EACH ROOM SHOWING THE INFORMATION ON: ROOM TEMPERATURE, MESSAGES FROM THE RECEPTION, TIME, ALERT IF ENERGY CONSUMED IS HIGHER THAN AVERAGE, WATER AND ENERGY CONSUMPTION CAN BE DISPLAYED IN A MEANINGFUL WAY

WATER SAVED:

2018.3L

WITH THIS AMOUNT OF WATER, YOU COULD HAVE PLANTED AND HARVESTED MANY KILOS OF RICE. KVO PENG FROM SHANGHAI PROVINCE SAYS HI!



ENERGY SAVED:

351KW/H

YOU SAVED ENERGY, SO YOU DIDN'T HURT OZONE LAYER, THE GLACIER DIDN'T MELT AND THIS POLAR BEAR FAMILY DON'T NEED TO MOVE.



CO2 EMISSION REDUCED:

4638.566

YOU CREATED LESS POLLUTION SO THIS FOREST IS STILL HOME FOR THE LITTLE TRIBE.



Holistic Platform Design for Smart Buildings of the Future InterNET

(ICT/FIRE STREP – 257466)

www.hobnet-project.eu

June 1, 2010 – May 31, 2013

HOBNET Partners



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