Title: SYSTEM AND METHOD FOR USING A MOBILE ELECTRONIC DEVICE TO OPTIMIZE AN ENERGY MANAGEMENT SYSTEM

Abstract: Embodiments of the invention comprise systems and methods for using the geographic location of networked consumer electronics devices as indications of occupancy of a structure for purposes of automatically adjusting the temperature setpoint on a thermostatic HVAC control. At least one thermostat is located inside a structure and is used to control an HVAC system in the structure. At least one mobile electronic device is used to indicate the state of occupancy of the structure. The state of occupancy is used to alter the setpoint on the thermostatic HVAC control to reduce unneeded conditioning of unoccupied spaces.

Declarations under Rule 4.17:
— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

Published:
— with international search report (Art. 21(3))

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## A. CLASSIFICATION OF SUBJECT MATTER

**F24F 11/02(2006.01)i; H04Q 9/04(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

F24F 11/02; G06F 17/00; G05D 23/00; F25B 9/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

- Korean utility models and applications for utility models
- Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

- eKOMPASS (KIPO internal)
- Keywords: mobile, geographic, location, temperature

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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Further documents are listed in the continuation of Box C. See patent family annex.

- Special categories of cited documents:
  - "A" document defining the general state of the art which is not considered to be of particular relevance
  - "E" earlier application or patent but published on or after the international filing date
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- "&" document member of the same patent family

Date of the actual completion of the international search

12 DECEMBER 2011 (12.12.2011)

Date of mailing of the international search report

12 DECEMBER 2011 (12.12.2011)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
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Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

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## INTERNATIONAL SEARCH REPORT
Information on patent family members

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