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1. Name of conveying party(ies):

- (1) Kwan-woo SONG
- (2) Il-kang NA
- (3) Jong-hyun SHIN
- (4) Dong-yun HWANG

2. Name and Address of receiving party(ies):

SAMSUNG ELECTRONICS CO., LTD.  
 129, Samsung-ro, Yeongtong-gu,  
 Suwon-si Gyeonggi-do 443-742 Republic of Korea

3. Nature of conveyance:

- Assignment
- Security Agreement
- Other: \_\_\_\_\_
- Merger
- Change of Name

Execution Date(s): (1) August 31, 2012 (2) September 3, 2012 (3) September 3, 2012 (4) August 31, 2012

4. Application number(s) or patent number(s):

This document is being filed together with a new application.

OR

This document is being filed after filing of the application:

- (a) Patent Application No(s). 13/616,840, filed September 14, 2012; or
- (b) Patent No(s). , issued .

5. Name and address of party to whom correspondence concerning document should be mailed:

STAAS & HALSEY LLP Our Docket: 1900.1350  
 Attention: Sonny S. Choi  
 1201 New York Ave., N.W., 7th Floor  
 Washington, D.C. 20005

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41)..... (\$ 40.00 per Patent or Application in Assignment)

- Enclosed
- Authorized to be charged to credit card.
- Authorized to be charged to deposit account.

8. Deposit Account No.: 19-3935 (Any underpayment is authorized to be charged to this Deposit Account) (Attach duplicate copy of this page if paying by deposit account)

Sonny S. Choi, Reg. No. 65,889  
 Name of Person Signing

Signature 09/17/2012 September 14, 2012  
 Date 01 FC:0021 40.00 0P

Total number of pages including cover sheet: 2

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# U.S. ASSIGNMENT

S&H 1/00

IN CONSIDERATION of the sum of One Dollar (\$1.00), and of other good and valuable consideration paid to the undersigned inventor(s) (hereinafter, "ASSIGNOR") by

(Insert Name(s) & Address(es) of ASSIGNEE(S))

SAMSUNG ELECTRONICS CO., LTD.  
129, Samsung-ro, Yeongtong-gu,  
Suwon-si, Gyeonggi-do 443-742  
Republic of Korea

(hereinafter, "ASSIGNEE"), the receipt of which is hereby acknowledged, the undersigned ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, title and interest to the invention entitled  
(Title of Invention)

## METHOD AND APPARATUS FOR MANAGING ENERGY BY ANALYZING ENERGY USAGE PATTERN OF ELECTRIC DEVICE

relating to International Patent Application PCT/JP / \_\_\_\_\_ and/or for which application for Letters Patent of the United States was executed on even date herewith or, if not so executed, was:

(a) executed on ;

(Insert date of execution of application, if not concurrent)

(b) filed on ;

Serial No. To be Assigned;

Any registered attorney of STAAS & HALSEY LLP, 1201 New York Avenue, N.W., Suite 700 Washington, D.C. 20005 (202/434-1500) is hereby authorized to insert in (b) the specified data, when known.

and to said application and all Letters Patent(s) of the United States granted on said application and any continuation, division, renewal, substitute, reissue or reexamination application based thereon, for the full term or terms for which the said Letters Patent(s) may be granted and including any extensions thereof (collectively, hereinafter, "said application(s) and Letters Patent(s)").

The ASSIGNOR agree(s), when requested by said ASSIGNEE and without charge to but at the expense of said ASSIGNEE, to do all acts which the ASSIGNEE may deem necessary, desirable or expedient, for securing, maintaining and enforcing protection for said invention, including in the preparation and prosecution of said application(s) and the issuance of said Letters Patent(s), in any interference, reissue, reexamination, or public use proceeding, and in any litigation or other legal proceeding which may arise or be declared in relation to same, such acts to include but not be limited to executing all papers, including separate assignments and declarations, taking all rightful oaths, providing sworn testimony, and obtaining and producing evidence.

IN WITNESS WHEREOF, the undersigned inventor(s) has (have) affixed his/her/their signature(s).

(Typed Name & Signature of Inventor(s))

(Date)

(Typed Name & Signature of Witness(es))

1) <u><i>Kwan-wool SONG</i></u>	<u>Aug 31, 2012</u>	_____
2) <u><i>Il-kang NA</i></u>	<u>Sep 3, 2012</u>	_____
3) <u><i>Jong-hyun SHIN</i></u>	<u>Sep 3, 2012</u>	_____
4) <u><i>Dong-yun HWANG</i></u>	<u>Aug 31, 2012</u>	_____
5) _____	_____	_____
6) _____	_____	_____
7) _____	_____	_____