

FORM PTO-1595

R

03-19-2010

U.S. DEPARTMENT OF COMMERCE



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To the Director of the U.S. Patent and Trade

103592189

nt.

Name of conveying party(ies):

Yong Su LEE
Wenbo WANGYoung-il KIM
Kan ZHENG

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

Electronics and Telecommunications Research Institute
161, Gajeong-dong, Yuseong-gu,
Daejeon 305-350,
Republic of Korea

3. Nature of conveyance:

☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☒ Other: In response to the Notice of Non-RecordationExecution Date(s): December 11, 2009

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). 12/616,980, filed November 12, 2009; 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: 2033.1080Attention: J. Randall Beckers

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 deposit account.

8. Deposit Account No.: 19-3935 (Any underpayment is authorized to be charged to this Deposit Account)

J. Randall Beckers, Reg. No. 30,358

Name of Person Signing

Signature

Date

Total number of pages including cover sheet: 7

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PATENT
REEL: 024105 FRAME: 0420

U.S. ASSIGNMENT

S&H 11X1

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))

**ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE
161, Gajeong-dong, Yuseong-gu, Daejeon 305-350, 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)

CHANNEL ESTIMATING METHOD IN WIRELESS COMMUNICATION SYSTEM AND APPARATUS THEREOF

relating to International Patent Application _____ 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 , November 12, 2009

Serial No. 12/616,980

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) Yong Su Lee 2009.12.11 _____
Yong Su LEE

2) Young-il Kim 2009.12.11 _____
Young-il KIM

3) _____
Wenbo WANG

4) _____
Kan ZHENG

PATENT

REEL: 024105 FRAME: 0421

U.S. ASSIGNMENT

8-11 1/00

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(Date)

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1)

Yong Su LEE

2)

Young-II KIM

3)

Wenbo WANG

Dec. 11, 2009

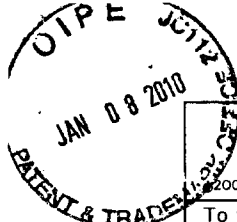
4)

Kan ZHENG

Dec. 11, 2009

PATENT

REEL: 024105 FRAME: 0422



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01-13-2010



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U.S. DEPARTMENT OF COMMERCE
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2. Name and Address of receiving party(ies):
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(Attach duplicate copy of this page if paying by deposit account)

J. Randall Beckers, Reg. No. 30,358
Name of Person Signing

Signature

1/8/10
Date

Total number of pages including cover sheet:

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U.S. ASSIGNMENT

S&H 1A(X)

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

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1) Yong Su Lee 2009.12.11 _____
Yong Su LEE

2) Young-il Kim 2009.12.11 _____
Young-il KIM

3) _____
Wenbo WANG

4) _____
Kan ZHENG

PATENT

REEL: 024105 FRAME: 0424

U.S. ASSIGNMENT

K&B 100

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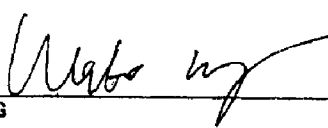
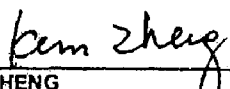
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| | | |
|--|---------------|-------|
| 1) _____ Yong Su LEE | _____ | _____ |
| 2) _____ Young-II KIM | _____ | _____ |
| 3)  _____ Wenbo WANG | Dec. 11, 2009 | _____ |
| 4)  _____ Kan ZHENG | Dec. 11, 2009 | _____ |

PATENT**RECORDED: 03/16/2010****REEL: 024105 FRAME: 0425**