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PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
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| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| Yu-Ro LEE | 05/13/2008 |
| Byung-Chan KIM | 05/13/2008 |
| Minho CHEONG | 05/13/2008 |
| Chanho YOON | 05/13/2008 |
| Je-Hun LEE | 05/13/2008 |
| Kwhang-Hyun RYU | 05/13/2008 |
| Cheol-Jung KIM | 05/13/2008 |
| Tae-Hyun JEON | 05/13/2008 |

RECEIVING PARTY DATA

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| City: | Daejon |
| State/Country: | REPUBLIC OF KOREA |
| Postal Code: | 305-350 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12131617 |

CORRESPONDENCE DATA

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PATENT

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| ATTORNEY DOCKET NUMBER: | SHS-0036 |
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| NAME OF SUBMITTER: | Jae Y. Park |
| Total Attachments: 3 source=22J3101#page1.tif source=22J3101#page2.tif source=22J3101#page3.tif | |

PATENT REEL: 021028 FRAME: 0970

ASSIGNMENT

WHEREAS We, LEE, Yu-Ro of #403-1201 Daedeok Techno Valley Apt., Gwanpyeong -dong, Yuseong-gu, Daejon 305-509, Republic of Korea, KIM, Byung-Chan of #403-4205 Samik Apt., Sung Ji Maeul, Daehwa-dong, Ilsanseo-gu, Goyang-si, Gyeonggi-do 411-410, Republic of Korea, CHEONG, Minho of #2-304 ETRI Dormitory, Gajcong-dong, Yuseong-gu, Daejon 305-350, Republic of Korea, YOON, Chanho of #106-801 ShinSung Worldcup Family Town, 323-2, Jangdae-dong, Yuseong-gu, Daejon 305-308, Republic of Korea, LEE, Je-Hun of #103-1803 Hanbit Apt., Eoeun-dong, Yuseong-gu, Daejon 305-755, Republic of Korea, RYU, Kwhang-Hyun of #102-706 Baekhap Apt., Wolpyeong-dong, Seo-gu, Daejon 302-280, Republic of Korea, KIM, Cheol-Jung of 236-1, Gajeong-dong, Yuseong-gu, Daejon 305-350, Republic of Korea, JEON, Tae-Hyun of #110-404 Seoan Apt., Park TownSunae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do 463-730, Republic of Korea, LEE, Sok-Kyu of #101-1102 Narae Apt., Jeonmin-dong, Yuseong-gu, Daejon 305-390, Republic of Korea (hereinafter referred to as "ASSIGNORS"); have invented certain new and useful improvements in:

QR DECOMPOSITION APPARATUS AND METHOD FOR MIMO SYSTEM

which claims priorities to **Korean** Application No. 10-2007-0131455, filed on December 14, 2007 and for which We are about to file an application for Letters Patent of the United States:

AND WHEREAS, ELECTRONICS AND TELECOMMUNICATIONS
RESEARCH INSTITUTE (hereinafter referred to as "ASSIGNEE"), a corporation organized and existing under the laws of the Country of Republic of Korea having a place of business at 161, Gajeong-dong, Yuseong-gu, Daejon 305-350, Republic of is desirous of acquiring an interest in the United States and all foreign countries, in and to the said invention and Letters Patent to be obtained therefor;

NOW THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, the receipt of which is hereby acknowledged, We, the said ASSIGNORS have assigned and transferred, and hereby assign and transfer unto the said ASSIGNEE, the entire right, title and interest in and to said invention in the United States and

PATENT REEL: 021028 FRAME: 0971 in all foreign countries, including priority rights, as fully set forth and described in said application; and We do hereby authorize and request the Commissioner of Patents to issue said Letters Patent on said application, and any and all Letters Patent that may be issued upon any and all revivals, refilings, continuations, continuations-in-part, divisions and reissues thereof, to the said ASSIGNEE, an assignee of the entire right, title and interest in and to the same, for the sole use and behoof of ASSIGNEE, its successors and assigns; and We do hereby agree that the said ASSIGNEE, may apply for foreign Letters Patent on said invention and that We will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by the said ASSIGNEE, its successors or assigns, and that We will, at the cost and expense of the said ASSIGNEE fully assist and cooperate in all matters in connection with the United States and foreign applications and patents issuing thereon.

The undersigned declare that all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

| Date: 13/May /2008 | Lee tu Ro LEE, Yu-Ro | L.S |
|---------------------|--------------------------------|------|
| Date: 13/May /2008. | Kin Byung Chan | L.S. |
| Date: 19/May/2008. | KIM, Byung-Chan CHEONG, Minho | L.S. |
| Date: 16/05/2008 | YOON, Chanho | L.S. |

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| Date: 13/May 2068 | LEE, Je-Hun | L.S. |
|----------------------|-------------------------------|-------|
| Date: /3 / 05 / 2008 | RYU, Kwhang-Hyun | L.S. |
| Date: 13/May/2008 | Kim Cheoljung KIM, Cheol-Jung | L.S. |
| Date: 13/ May /2008. | Jeon Tochyon JEON, Tae-Hyun | L.S. |
| Date: 13/05/2008 | Sopkynlee LEE, Sok-Kyu | L.\$. |

RECORDED: 06/02/2008