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10-2009-0017904 3 March 2009 (03.03.2009) KR(71) Applicant (for all designated States except US): **SAMSUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-742 (KR).(72) Inventors: **KWON, Tae Soo**; No. 402-1204, Neuchimi Maeul Jugong 4 Danji Apt., Byeongjeom-dong, Hwaseong-si, Gyeonggi-do 445-763 (KR). **JANG, Kyung Hun**; No. 102-505, Dongsuwon LG Village 1 Cha Apt., Mangpo-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-706 (KR). **KIM, Young-Doo**; No. 404-1002, Dogok Rexle Apt., Dogok 2-dong, Gangnam-gu, Seoul 135-506 (KR).(74) Agent: **MUHANN PATENT & LAW FIRM**; 2, 5, 6th Floor, Myeonglim Building, 51-8 Nonhyeon-dong, Gangnam-gu, Seoul 135-814 (KR).

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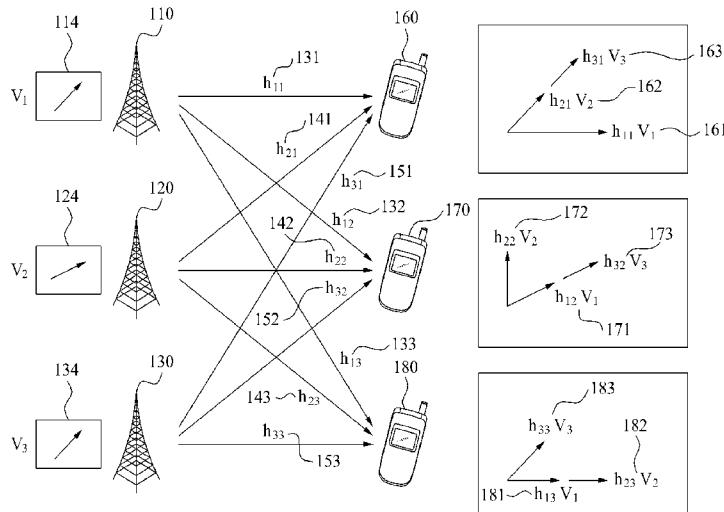
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[Fig. 1]



(57) Abstract: Provided are a signal transmission method and a network apparatus to control interference in a radio communication network. A terminal may transmit to the network apparatus, signal quality information associated with a radio channel formed between the terminal and a corresponding base station. The corresponding base station may output a signal received by the plurality of terminals, based on the signal quality information.

**INTERNATIONAL SEARCH REPORT**

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A. CLASSIFICATION OF SUBJECT MATTER IPC: <b>H04W 52/24</b> (2009.01); <b>H04J 11/00</b> (2006.01); <b>H04B 7/02</b> (2006.01) 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) <b>H04J, H04W</b>		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) <b>WPI, EPODOC</b>		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.		<input checked="" type="checkbox"/> See patent family annex.
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Date of the actual completion of the international search 02 December 2011 (02.12.2011)	Date of mailing of the international search report 16 December 2011 (16.12.2011)	
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A	WONG, W.C. et al.: "Interference mitigation using downlink transmit beamforming with nulling techniques", IEEE 802.16 Broadband Wireless Access Working Group, IEEE C802.16m-08/653r2 [online], 15 July 2008 (15.07.2008) [retrieved on 2 December 2011 (02.12.2011)]. Retrieved from the Internet: <URL: <a href="http://www.ieee802.org/16/tgm/contrib/C80216m-08_653r2.doc">www.ieee802.org/16/tgm/contrib/C80216m-08_653r2.doc</a> > sections 2, 3.	1, 9, 15, 18, 26, 31, 34, 38-41
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A	GOMADAM, K. et al. "Approaching the Capacity of Wireless Networks through Distributed Interference Alignment", IEEE Global Telecommunications Conference, IEEE GLOBECOM 2008, 30 November 2008 (30.11.2008) pages 1-6, ISSN 1930-529X, ISBN 978-1-4244-2324-8, XP031370500 sections I-V.	1, 9, 15, 18, 26, 31, 34, 38-41
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