

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
14 October 2021 (14.10.2021)



(10) International Publication Number
WO 2021/204097 A1

(51) International Patent Classification:
H04B 7/00 (2006.01)

(21) International Application Number:
PCT/CN2021/085517

(22) International Filing Date:
05 April 2021 (05.04.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10202003146T 05 April 2020 (05.04.2020) SG

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(54) Title: CHANNEL LEARNING AND POWER TRANSMISSION IN WIRELESS POWER NETWORKS

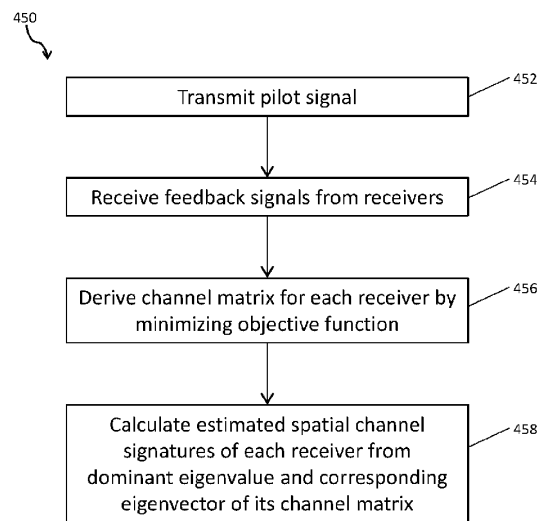


FIG.4

(57) **Abstract:** The present disclosure relates to channel learning and power transmission in wireless power networks. A method of estimating channels between a transmitter and a plurality of receivers in a wireless power network is described. The transmitter comprises an array of wireless power transmission antennas. The method comprises: transmitting a pilot signal from the wireless power transmission antennas of the transmitter; receiving feedback signals from each receiver of the plurality of receivers, the feedback signals comprising received signal power indications for each respective receiver; calculate channel matrices for channels between the wireless transmission antennas and wireless power reception antennas of each respective receiver by minimizing an objective function of a channel matrix and the received signal power indications for the respective receiver; and estimating spatial channel signatures of the reception antennas on the array of wireless power transmission antennas from the dominant eigenvalue and corresponding eigenvector

[Continued on next page]

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

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