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(71) Applicant: **LANDIS+GYR TECHNOLOGY, INC.** [US/US]; 30000 Mill Creek Avenue, Suite 100, Alpharetta, Georgia 30022 (US).

(72) Inventor: **HARTMAN, James Paul**; c/o Landis+Gyr Technology, Inc., 3000 Mill Creek Avenue, Suite 100, Alpharetta, Georgia 30022 (US).

(74) Agent: **HARRIS, Christopher P.** et al.; 950 Main Avenue, Suite 710, Cleveland, Ohio 44113 (US).

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Declarations under Rule 4.17:
— *as to the identity of the inventor (Rule 4.17(i))*
— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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(54) Title: TIME SYNCHRONIZED CHANNEL HOPPING SEQUENCE GENERATION AND USE FOR WIRELESS RF COMMUNICATIONS

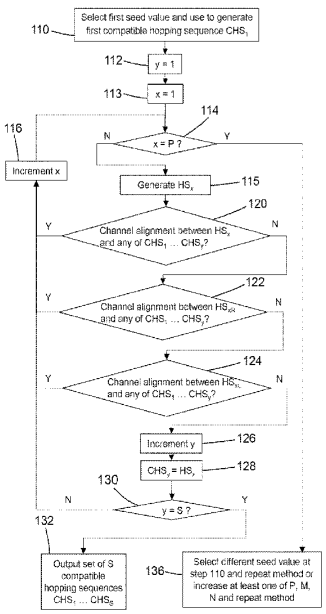

FIG. 5

(57) Abstract: A method for use in determining a set of S compatible time-synchronized channel hopping sequences for transmitting and/or receiving wireless RF signals at S neighboring wireless RF transceivers comprises: generating at least S hopping sequences, each hopping sequence comprising M time slots, each time slot having a corresponding RF channel frequency, and the RF channel frequency in each time slot being selected from a set of N RF channel frequencies; and determining whether there exists one or more sets of S compatible hopping sequences from among the at least S generated hopping sequences, wherein none of the hopping sequences of each set of S compatible hopping sequences have the same RF channel frequency in the same time slot and none of the hopping sequences of each set of S compatible hopping sequences have the same RF channel frequency in adjacent time slots, wherein S, M and N are integers, and S is greater than or equal to two. The method may further comprise, responsive to determining that there exists one or more sets of S compatible hopping sequences from among the at least S generated hopping sequences, selecting one of the one or more sets of S compatible hopping sequences for transmitting and/or receiving wireless RF signals at the S neighboring wireless RF transceivers.

[Continued on next page]

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