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Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

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(54) ANTI-EAVESDROPPING SHELTER FOR PROTECTION OF WIRELESS COMMUNICATION

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See application file for complete search history.

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57) ABSTRACT

A method improves an anti-eavesdropping (AE)-shelter that emits interference signals that protect communication (Continued)

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determining a circular boundary for a AE shelter to emit wireless interference signals that protect wireless communication between legitimate transmitters and legitimate receivers within the AE shelter

improving the AE shelter by uniformly placing a number of jammers at the circular boundary with a jamming range r_j for each jammer 120

tuning emitting power P_J of the jammers so that power of the interference signal at distance r_j from the jammers is not lower than a predetermined threshold T_j to enable jamming of the wireless communication

improving a coverage area of the wireless interference signals such that the jamming range of one jammer does not overlap with the jamming range of another jammer and such that the jamming range of all of the jammers covers an entirety of the circular boundary

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between legitimate transmitters and legitimate receivers in the AE-shelter. The method includes determining a circular boundary for the AE-shelter; improving the AE-shelter by uniformly placing a number of jammers at the boundary; tuning emitting power of the jammers; and improving a coverage area of the interference signals.

20 Claims, 13 Drawing Sheets

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