

EXACT SYMBOL ERROR RATE GENERATION

DECREASING ERROR PROBABILITY FOR SECURE COMMUNICATION



TECHNOLOGY FIELD

Communication Systems, Wireless Mobile Communications

IP PROTECTION

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RESEARCHER



Dr. Hyuck Kwon is a professor at Wichita State University with an exceedingly accomplished background in communication systems. Currently, Dr. Hyuck Kwon has 11 patented technologies in the field of communication systems. His research lab has been awarded over 3 million dollars in funding with cooperative partners such as NASA, U.S. Air Force, and Asian Office of Aerospace.

BACKGROUND

➔ Due to the presence of various malicious activities, such as jamming and eavesdropping, it is vital to have an error-free and secure transmission. When an originally desired signal is hit by a tone jammer with sufficient jamming power, half of the symbols in the hop interval are likely to be in error for a binary modulation, resulting in a generation of multiple tones instead of a single tone.

ADVANTAGES

➔ This presented technology is a system and method for transmitting data and recording the symbol error rate of the communication. The radio signal can then be modulated with respect to the recorded symbol error rate information, optimizing the modulation pattern and decreasing error probability.

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