Accumulate Then Transmit Towards Secure Wireless Powered Communication Networks

ABSTRACT

- This paper considers a wireless powered communication network, where a multi-antenna power beacon is employed to assist an energy constrained source to establish secure communications with a destination in the presence of multiple eavesdroppers.
- We propose a two-phase communication protocol termed as accumulate-then-transmit to enhance network secrecy.

EXISTING SYSTEM

- Traditional wireless devices relies on either batteries such as solar and wind for their energy needs.
- Differently, RF energy harvesting devices can scavenge energy from received RF signals.
- This eliminates both the burden of frequent battery replacement and the restriction on location and/or climate.
- As a result, RF energy harvesting has drawn enormous attention it has also been investigated in various wireless communication networks, including wireless sensor networks, cognitive radio networks, cellular networks

PROPOSED SYSTEM

- In the energy harvesting phase, the PB transfers radio frequency energy to charge the source then in the information transmission phase, the PB acts as a friendly jammer to protect the source transmission against eavesdropping.
- We study the dynamic energy state transitions at the source using an energy dis cretization method and a finite-state Markov Chain.
- Closed-form expressions are derived for connection outage probability, secrecy outage probability, and effective secrecy throughput, with the aim to evaluate both reliability and security of the proposed protocol.

HARDWARE REQUIREMENTS

- Processor - Intel core i3
- RAM - 2B
- Hard Disk - 20 GB

SOFTWARE REQUIREMENTS

- Operating System : LINUX
- Tool : Network Simulator-2
- Front End : OTCL (Object Oriented Tool Command Language)

REFERENCE

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