

## DESIGN OF A CUSTOM ENCRYPTION KEY GENERATOR TO SECURE WIRELESS NETWORKS

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### ABSTRACT

The wireless LANs have been deployed at many places, small or big, houses or commercial complexes mainly because of their ease of installation and use. The IEEE 802.11-based WLAN presents new challenges for network and information security administrators. Whereas the security requirements of wired Ethernet deployments are relatively simple, security of a WLAN is somewhat complex. 802.11-based WLANs broadcast radio-frequency data for the client stations to receive. Hence, there are complex security issues that involve augmenting the 802.11 standard. This work critically reviews main security flaws of Wired Equivalent Privacy and suggests a new approach of automatic key management and refresh of WEP key so that attacker could not get sufficient time to guess the key.

**KEYWORDS:** Access Point, Ethernet, IEEE 802.11, IEEE 802.11i, Key Management, Local Area Networks, Network Interface Card, Radio-Frequency, RC4, Transmitter, Wired Equivalent Privacy, Wireless Local Area Networks