ABSTRACT
This thesis, on the basis of the development trend of present miniaturized multi-media mobile devices, proposes a uni-planar monopole antenna design for multi-band operations. This antenna can be installed on the ground surfaces of three different mobile communication systems: laptop computers, mobile phones, and USB wireless network cards. This design represents a unified solution to both WLAN (Wireless Local Area Network) and WiMAX (Worldwide Interoperability for Microwave Access) wireless communication standards. Antenna radiation characteristics were maintained excellent for the proposed antenna installed in all these three environments.

Keywords: Uni-planar monopole antenna; Laptop; Mobile phone; USB wireless network card; Wireless Local Area Network (WLAN); Worldwide Interoperability for Microwave Access (WiMAX)