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**Development and Evolution of The Effectiveness of
Inter-System Handover Algorithm in UMTS and
GSM Standards**

A Final Year Project

By

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Abstract

The Global System for Mobile communications is a digital cellular communications system. It was developed in order to create a common European mobile telephone standard but it has been rapidly accepted worldwide.

The Universal Mobile Telecommunications System (UMTS) besides providing changes in the network infrastructure, specifications point out the evolution path from GSM circuit switched networks towards packet switched technologies offering higher transmission rates.

There are four different types of handovers in GSM, The first two types of handover involve only one base station controller (BSC), the last two types of handover are handled by the MSCs involved.

There are two types of handovers in UMTS, hard handover and Soft handover.

This research has dealt with a comparison between GSM and UMTS of the Handover in terms of the frequency bands and speed of information transfer.

UMTS used high band frequencies, this refer to quality of call, video call and using in internet, using (3G). High bandwidth in UMTS refer to speed data transfer, also UMTS not affect by noise , affected GSM because UMTS using (W-CDMA) which digital , bit error rate in the UMTS less than in the GSM.

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