



**Sudan University of Science and Technology**  
**College of Graduate Studies**

**Lightweight Inter-Cluster Synchronization Scheme for  
Femtocell Network**

**مخطط تزامن المجموعات المجمله خفيف الوزن  
للشبكات ذات الخليه متناهيه الصغر**

A thesis submitted in Partial Fulfillment for the Requirements of  
the Degree of M.Sc. in Communication Engineering

**By:**

**Omnya Abdel Rahman Hasab Alla**

**Supervisor:**

**Assoc Dr. Rashid A. Saeed**

**December 2012**

**Chapter 1**  
**Introduction**

**Chapter 2**  
**Literature Review**

**Chapter 3**  
**Methodology**

**Chapter 4**  
**Simulation and Result**

## **Chapter 5**

# **Conclusion and Recommendations**

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ (1) مَخْلَقَ الْإِنْسَانَ مِنْ عَلَقٍ (2) اقْرَأْ وَرَبُّكَ الْأَكْرَمُ  
(3) الَّذِي عَلَّمَ بِالْقَلَمِ (4) عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ (5).

(سوره العلق)