

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**SUDAN UNIVERSITY OF SCIENCE & TECHNOLOGY
COLLEGE OF GRADUATE STUDIES
DEPARTMENT OF SURVEYING ENGINEERING**

Structure and Applications of Covariance Functions in Geodesy

تكوين و تطبيقات دوال التغيرات في الجيوديسيا

**Thesis submitted in fulfillment of the requirements for the degree of Doctor
of Philosophy**

By:

Elhadi Elnazier Ibrahim

Supervisor:

Dr. Ali Hassan Fagir

August 2009

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى:

الْمُتَرَوِّا أَنَّهُ سَخَّرَ لَكُمْ مَافِي السَّمَوَاتِ وَمَافِي الْأَرْضِ وَأَسْبَغَ
عَلَيْكُمْ نِعْمَهُ ظَهْرَهُ وَبَاطِنَهُ وَمِنَ النَّاسِ مَنْ يُجَادِلُ فِي اللَّهِ
بِغَيْرِ عِلْمٍ وَلَا هُدًى وَلَا كِتَابٍ مُنِيرٍ ﴿٢٠﴾

صدق الله العظيم

(سورة لقمان الآية 20)

DEDICATION

I wish to dedicate this thesis to my parents, to every member of my extended family, to my wife, my Childs, as well as my students.