

بسم الله الرحمن الرحيم

**Sudan University of Sciences Technology**  
**College of Graduate studies**

**Integration of Solar Power into Conventional Power Grid**

ربط الطاقة الشمسية بشبكة القدرة الكهربائية التقليدية

**Dissertation submitted in partial fulfillment for the requirement of**  
**Master of Science degree in Electrical Engineering (Power)**

Prepared by:

*Najla Abd Elateef Osman*

Supervised by:

**Dr. Abdaziz Yousif Mohamed Abbas**

**July 2013**

# الآية

قال تعالى :

(إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ وَالْفَلَكَ الَّتِي تَجْرِي فِي الْبَحْرِ بِمَا يَنْفَعُ  
النَّاسَ وَمَا أَنْزَلَ اللَّهُ مِنَ السَّمَاءِ مِنْ مَاءٍ فَأَحْيَا بِهِ الْأَرْضَ بَعْدَ مَوْتِهَا وَبَثَّ فِيهَا مِنْ كُلِّ دَابَّةٍ  
وَتَصْرِيفِ الرِّيَّاحِ وَالسَّحَابِ الْمُسَخَّرِ بَيْنَ السَّمَاءِ وَالْأَرْضِ لآيَاتٍ لِقَوْمٍ يَعْقِلُونَ) .

صدق الله العظيم

سورة البقرة الآية (١٦٤)

# Dedication

*One who gave me life,,,  
My mother and father who brought me up*

*To m y husband,,,*

*And every one surround me with love,,,*

*Brother, sister and my friends,,,*

*To everyone that has a candle and always give me ,,,*

*Thanks*

## Acknowledgment

*Thanks before and after Alla for his giving me strength and power to complete this project.*

*I would like to express my great thanks to those who helped me to complete this thesis success fully.*

*I would like to thank supervisor Dr. Abd Elaziz Yoosif for his guidance and supervision.*