



Sudan University of Science and Technology

College of Graduate Studies

Department of Mechanical Engineering

**Tribological Study for a New Designed Axial Engine
by using CAE**

**دراسة تريبولوجية لنموذج لمحرك محوري باستخدام برامج الهندسة بمساعدة
الحاسوب**

A Thesis Submitted In Partial Fulfillment for the
Requirements of the Degree of M.Sc in Mechanical
Engineering

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى :

(وَعَلَّمَ آدَمَ الْأَسْمَاءَ كُلَّهَا ثُمَّ عَرَضَهُمْ عَلَى الْمَلَائِكَةِ فَقَالَ أَنْبِئُونِي بِأَسْمَاءِ هَؤُلَاءِ إِنْ كُنْتُمْ صَادِقِينَ * قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ)

صدق الله العظيم

سورة البقرة آية (31 و 32)

Dedication

To our:

******Parents.*

****Helpful brothers and sisters.*

***Best friends and colleagues.*

**and to every body helped us.*

Acknowledgement

For trying to keep us going in straight lines, I need to thank my parents "Mums and Dads ", those whom have an almost magical ability to turn me thoughts into words by their continuous encouragement and attention.

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