

**SUDAN UNIVERSITY OF SCIENCE
AND TECHNOLOGY**
College of Graduate Studies

**A COMPARATIVE STUDY OF IEC101, DNP3
AND MODBUS SCADA PROTOCOLS**
دراسة مقارنة عن مراسيم التحكم الاشرافي

A thesis submitted in partial fulfillment of the MS.c in
Telecommunication engineering.

By:
Abdalla Hussein Ismail
Co-supervisor:
Eng.Tarig Khalifa Gafar
Supervisor:
Assoc.Prof.Abdalla Salih Ali

March 2009