

**THE APPLICATION OF  
ROLLER COMPACTED CONCRETE (RCC)  
IN DAM CONSTRUCTION**

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**B.Eng (Hons)(Civil)  
UNIVERSITI TEKNOLOGI MARA  
2006**

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By

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Report is submitted as  
The requirement for the degree of  
**Bachelor of Engineering (Hons) (Civil)**

**UNIVERSITI TEKNOLOGI MARA  
APRIL 2006**

## DECLARATION BY THE CANDIDATE

I am Amalina Amirah Bt Abu Bakar, UiTM no.:2002611817 declared that this thesis is the result of my own work, except the ideas and summaries which I have clarified their sources. The appropriate credit has been given where reference has been made to the work of others. The work has not been accepted for any degree and is not currently submitted in candidature of any degree.

Signed :.....

Date :.....

## ACKNOWLEDGEMENT

**F**rom deep of my heart, praise to Allah, the Almighty who is the most merciful. Nothing may take place without His leave. I express my heartiest indebtedness to my family for the tender care and affection.

Firstly, I would like to dedicate my special compliments to my supervisor, Pn. Caroline Peter, who has give me advice, guidance, patience, encouragement and cooperation during the preparation of this study from the beginning until it complete.

Secondly, my greatest gratitude is dedicate to Mr. Lee Wai Hoong, Project Manager of RCC Kinta Dam in Ipoh, Perak, who has contribute his guides and cooperation by sharing useful information during completion of this study. Also a big thank to Pn. Clotilda Petrus and Miss Caroline Marajan for advice, encouragement critics and guidance in order to complete this study.

Thirdly, I want to take this opportunity to express my greatest gratitude and appreciation to my beloved father and mother, En. Abu Bakar Bin Ismail and Pn. Maimunah Bt Ahmad and to my researcher partner, Khairul Ammar Bin Muhd Ali whose never-ending support especially in financial, great understanding and enthusiastic support through out the years that has contribute to success of my academics.

Lastly, thanks to all friends who had never forgotten to give me co-operations, enthusiastic supports and encouragement.

May Allah, the Almighty One shower His blessing upon all of us and make this small effort useful and beneficial for others for future reference. Thank you.

## **ABSTRACT**

Roller Compacted Concrete (RCC) is a no-slump, dry mix of cement, fine aggregate, coarse aggregate, and fly ash. It is a new technology but develop rapidly in the world. It draws on concepts from the technology of concrete gravity dams and earth-fill embankment dams. On 1982 the first RCC dam was built. The main advantage of the RCC dam is economics due to reduced forming, placement and compaction costs. In Malaysia from years ago until now, it is depending on hydro power plant to generate electric and also as a water resource. The purpose of this study is to give an overview to the application of RCC in dam construction besides to enhance knowledge about dam as a hydraulic structure. It is an effort to produce overview criteria in constructing RCC dam and to compare the design criteria between RCC dams and conventional concrete (CVC) dam. Thus, it is expect that in future, this beneficial study will be continued in finding more details about constructing RCC dam especially to be applied in Malaysia.