

**CENTRE OF STUDIES FOR BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA**

**STUDY ON THE COMPRESSIVE STRENGTH OF
CONCRETE USING CONSTRUCTION AND DEMOLITION WASTE
AS AGGREGATES**

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**Academic Project submitted in partial fulfilment of the requirements
for the degree of
Bachelor of Building Surveying (Hons)
Centre of Studies for Building Surveying
Faculty of Architecture, Planning & Surveying**


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**“I hereby declare that this academic project is the result of my own research
except for the quotation and summary which have been acknowledged”**

Student's Name : Muhamad Nur Syafiq Bin Mokhtar

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Date : January 27th 2014

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**ACADEMIC PROJECT
BSS 608 & BSS 658**

CONFIRMATION OF ACADEMIC PROJECT AMENDMENTS

**This is to confirm that the student has amended his/her
academic project as directed and therefore allowed to compiles**

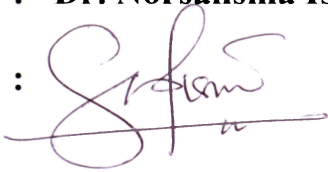
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Student's Name : **Muhamad Nur Syafiq Bin Mokhtar**

UITM No. : **2010546035**

Title : **Study on the Compressive Strength of Concrete
Using Construction and Demolition Waste as
Aggregates**

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Date : **January 27th 2014**

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In the Name of Allah, the Compassionate, the Merciful, Praise be to Allah, Lord of the Universe

Alhamdulillahirobbil alamin..

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ABSTRACT

The disposal of construction and demolition waste in landfills has caused major environmental concerns in country such as Malaysia, Hong Kong and European Union. Government of Malaysia sources indicate that there is an acute shortage of landfill space in Malaysia. To overcome this problem, suggestion to recycle the construction and demolition waste to be used in concrete mix as a coarse aggregate was given. To prove that this idea can be used, some experiment need to be done. The four types of concrete that will be mix and test are normal concrete, concrete with containing *10% construction and demolition waste aggregate*, concrete with containing *20% construction and demolition waste aggregate* and concrete with containing *30% construction and demolition waste aggregate*. The sizes of specimen are 100mm x 100mm x 100mm cube for compressive strength test. The testing have been carried out at the age 7,14 and 28 days for all specimens of concrete. The scope relates to the material and equipment that involved in this study and full fill the requirement according to standard BS 1881: Part 116:1983. According to the experiment test result, the value of compressive strength with 0% contents of construction and demolition waste are the highest, follow by the value of compressive strength with 10% contents of construction and demolition waste, than follow by the value of compressive strength with 20% contents of construction and demolition waste and the lowest value of the compressive strength fall to 30% contents of construction and demolition waste. The value of compressive strength that produced by all the three different percentage of construction and demolition waste, it show that all the three concrete mix comply and pass the target of concrete that use for this experiment it is Grade 20. Because of that, once again we can conclude that the construction and demolition waste can be used as a coarse aggregate in the concrete mix.