

UTILIZATION OF RECYCLED TYRE
RUBBER WASTE AS PARTIAL
REPLACEMENT OF SAND IN
ULTRA-HIGH PERFORMANCE
CONCRETE
(RUBBERIZED-UHPC)

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SUPERVISOR'S DECLARATION

I/We* hereby declare that I/We* have checked this thesis/project* and in my/our* opinion, this thesis/project* is adequate in terms of scope and quality for the award of the degree of Bachelor (Hons.) Degree in Civil Engineering.

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I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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Thesis submitted in fulfillment of the requirements
for the award of the
Bachelor Degree in Civil Engineering

Faculty of Civil Engineering and Earth Resources
UNIVERSITI MALAYSIA PAHANG

JUNE 2017

ACKNOWLEDGEMENTS

Alhamdulillah, all thanks to the Allah S.W.T., I was able to complete my final year project successfully as it was prescribed by the department of Civil Engineering of University Malaysia Pahang. With His willing to give me the opportunity and good health during the whole two semester period, the experimental work progress had been done without much constraints. The final thesis was also successfully being completed to relate how much knowledge gained during my experimental work.

I take this opportunity to express a sincere appreciation to my supervisor, Encik Mohd Faizal bin Md Jaafar for his continual support and guidance during the preparation and development of this project. I am also thankful to him for encouraging the use of correct grammar and consistent notation in my writings and for carefully reading and commenting on revision of this dissertation. I would also like to express deep sense of gratitude to the concrete laboratory technician for their logistic facilitations and their continuous guidance.

Above all, I must acknowledge the love and support of my incredible family who has been a constant source of strength, inspiration, and love. A big appreciation and thanks also to my friend who were willing assist me during the experimental work of the research.

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LIST OF SYMBOLS

°C	Degree celcius
D	Diameter
%	Percentage
kg/m ³	Kilogram per cubic meter
L	Length
mm	Millimeter
MPa	Megapascal
N	Newton
P	Applied load
μm	Micrometer

LIST OF ABBREVIATIONS

BS	British standard
CA	Chemical admixture
CR	Crumb rubber
CRC	Compact reinforced concrete
DSP	Densified small particles
HPC	High performance concrete
HRWRA	High Range Water-Reduce
MDF	Macro Defect Free
MRP	Micromized rubber powder
MS	Microsilica
NC	Normal concrete
OPC	Ordinary Portland cement
PCC	Plain cement concrete
RCR	Recycled crumb rubber
RPC	Reactive powder concrete
RRP	Recycled rubber powder
RTRW	Recycled tyre rubber waste
SCC	Self-compacting concrete
SIFCON	Slurry infiltrated fiber concrete
SF	Silica fume
SP	Superplasticizer
UHPC	Ultra-high performance concrete
UHPRFC	Ultra-high performance fibre reinforced concrete
w/c	Water-cement ratio