

UNIVERSITY OF NAIROBI

FACULTY OF ENGINEERING

DEPARTMENT OF CIVIL & CONSTRUCTION ENGINEERING

MINUTES OF MSc SEMINAR

DATE: 15TH JANUARY 2020

VENUE: PROJECT ROOM

TIME: 10:00HRS

Members Present

No.	Name	Organisation	Title
1.	Prof. S. K. Mwea	University of Nairobi	Member
2.	Dr. J. N. Mwero	University of Nairobi	Member
3.	Dr. S. O. Dulo	University of Nairobi	Staff
	Incent Odhiambo	University of Nairobi	M. Sc. Student
	Swani Michael	Nairobi City County	M. Sc. Student
	Iladwell Nganga	University of Nairobi	PhD Student
	W. Mumenya	University of Nairobi	Staff
	Silvester Abuodha	University of Nairobi	Staff
	omi Munyua	University of Nairobi	M. Sc. Student
of attendance attached			

MINUTE	DESCRIPTION
2020-01-15:1	Introduction
	The seminar began with opening remarks from Prof. S. K. Mwea following which, all the members in attendance introduced themselves. Dr. Mwero was the timekeeper and allowed 10 minutes for the presentation. Mr. Munyua was allowed to make the presentation.
2020-01-15:2	Presentation
	Presenter – Mr. Muthomi Munyua – F56/7509/2017 Topic: Effect of Carbon Fibre Reinforced Polymer Strengthening on the Axial Capacity and Ductility of Non-slender Square Concrete Columns Supervisors: Dr. Siphila W. Mumenya and Dr. John N. Mwero The presentation was outlined as follows: Introduction, Literature Review, Methodology, Schedule of Activities, Work Plan, References & Appendices.
2020-01-15:3	Interactive Session
Comment 1:	Dr. Mumenya inquired on details of the need for funding.
Response 1:	Mr. Munyua informed the audience that the research had received financial support in the form of donation of materials by CGP Consulting Engineers Ltd.

Comment 2:	Dr. Dulo asked on the concrete specifications to manufacture the specimen.
Response 2:	Mr. Munyua answered by saying that this research would not undertake a concrete mix design. The research would assume that prescribed ratios used in industry for the manufacture of concrete would lead to the desired target strengths of concrete.
Comment 3:	Dr. Mumunya asked the opinion of other members on whether the title is in line with the research being conducted.
Response 3:	Dr. Mwero and Mr. Odhiambo responded in the affirmative that the title was in line with the investigation to be conducted.
Comment 4:	Prof. Abuodha inquired on why square columns are being studied and not circular.
Response 4:	Mr. Munyua informed the seminar attendees that many studies have already been done on the circular columns. Few studies have been done on square columns. Mr. Munyua also added that square columns lead to stress concentrations at the edges resulting in premature failure. This research had the intention of generating data and creating knowledge with regards to the stress concentrations.
Comment 5:	Prof. Mwea sought clarification as to why a consultant, CGP Consulting Engineers Ltd., was interested in this research.
Response 5:	Mr. Munyua informed the attendees that CGP Consulting Engineers Ltd. had experienced difficulties in a site in Ruaka whose test results of the RC columns showed that the columns had not attained the target strength. The engineer was considering demolition at high financial cost or using Carbon Fibre Reinforced Polymer strengthening.
Comment 6:	Dr. Mumunya asked Mr. Munyua to consider adding that specific case study, Ruaka site, and others within the country to his thesis to make it even more comprehensive.
Response 6:	Mr. Munyua acknowledged this comment and planned to incorporate this into the research.
Comment 7:	Dr. Mwero referenced the presentation where Mr. Munyua had informed the audience that CFRP has poor response to fire. Dr. Mwero inquired on what methods of fire protection were being considered for the case study mentioned.
Response 7:	Mr. Munyua informed the audience that plaster of about 15mm thickness might be used for fire protection.
Comment 8:	Dr. Dulo asked what goes wrong in construction sites – whether it was substandard materials, poor workmanship or lack of quality control.
Response 8:	Dr. Mumunya informed the audience that from her experience, it is usually an issue of quality control especially in high strength concretes where construction workers may use more water to improve workability with the unintended consequences of lower strength.
Comment 9:	Prof. Abuodha asked Mr. Munyua to perform a cost-benefit analysis of using the CFRP wrap in comparison with the process of demolition.

Response 9: Mr. Munyua acknowledged that that was indeed of great value. He said that he would do a cost-benefit analysis in his research.

Comment 10: Prof. Abuodha also asked what was novel with this research.

Response 10: Mr. Munyua informed the audience that this research was going to test the effect of partial confinement in addition to the effect of full confinement. Previous research is based on full confinement.

2020-01-15:4 Signing and adjournment

The attendance sheet was filled and signed. Ms. Gladwell Nganga made her presentation, and the seminar concluded.

Confirmation of minutes:

Prepared by:		Signature:		Date:	
					
Student Name:		Signature:		Date:	
					
Supervisor Name:		Signature:		Date:	
					

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