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PTU PUNJAB
TECHNICAL
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ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ ਜਲੰਧਰ

Ref. No. PTU/RIC/Ph.D/224/28/2384-87

Dated 12/06/2014

Dr. Hardeep Singh Rai
Professor,
Department of Civil Engineering,
Guru Nanak Dev Engineering College,
Ludhiana

Subject: Re-submission of research thesis with modifications.

Dear Dr. Rai,

Reference is made to the research thesis submitted by Ms. Harpreet Gaba, Regd. No. 01.28.09 pursuing Ph.D programme under your guidance. The observation made by external experts in the proposed research work being carried out by the candidate is attached herewith.

The candidate has to modify the proposed research thesis accordingly and resubmit the research thesis in revised form to the University so that next step should be taken.

Thanking you,

Yours sincerely,

Dean (RIC) 12/06/14

Copy to:

Dr. Harvinder Singh, Civil Engineering Dept. GNDEC, Ludhiana(Co-guide)
Dr. S.P. Singh, Prof. Civil Engineering Dept. NIT- Jalandhar. (Co-guide)
Ms. Harpreet Gaba, Astt. Prof., Civil Engineering Dept. GNDEC, Ludhiana

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1. The changes incorporated in the thesis per the remarks below.
2. Response of the candidate to the questions listed below.

A. Remarks:

1. The thesis has numerous grammatical & typographical errors and the text is confusing at several places. The candidate should revise the entire thesis and avoid using flowery language.
2. Citing of the work of the other researchers in Chapter 2 is not consistent. In this chapter works from researchers are reported in arbitrarily created paragraphs creating confusion. At a few locations the sentences are left incomplete.
3. The methods used for the design of concrete mix and two way concrete slabs should be referenced in the thesis. (p. 46 & 47)
4. Chemical composition of the bonding materials (primer and epoxy) should be included in the thesis. (p.50)
5. It is stated in section 3.4.2 that indirect USPV method of testing was used for slab specimens (highlighted in red in Fig. 3.3). This is wrong. The direct method was used per my understanding. (p.52)
6. "Section 3.6 Damage Index" should this be included in Chapter 2? (p.60)
7. Chapter 4 is titled "Numerical Modelling and Investigation". However, this chapter deals only with the input/output interface of ATENA 3D and does not include any content on the numerical modelling and investigation of materials used in this study.
8. Pages 97 to 104 describe the modelling of concrete slabs. Should this section be not covered in Chapter 4?
9. 'd' & 'd₁' parameters in figures on pages i, ii & iii of Annexure-1 are not shown properly.
10. The conclusions stated in Chapter 6 are very general and qualitative only. This chapter should be rewritten stating clear, concise and quantitative findings of this thesis.