

## CHAPTER VI

### CONCLUSION

#### 6.1 Conclusion

Based from design code analysis, numerical analysis and from previous experiment result, it is concluded that when both design codes were compared with previous test its result were conservative, where the closest value is the EC4 result with 9.7% lower than previous test result, and SNI 1729-2015 result is more conservative than the EC4 with 12% lower than the previous test.

Table 6.1 Result Comparison.

Column No.	$P_{SNI}$ (KN)	$P_{EC4}$ (KN)	$P_{FE}$ (KN)	$P_{exp}$ (KN)
C4	938	957	1108	1050

When the numerical analysis and (Soliman, Arafa, & Elrakib, 2013) experiment result compared, the numerical analysis result gave close result where the axial load capacity based on the numerical analysis only 5% more than the experiment result.

The numerical analysis was verified with previous experiment, and the result was the numerical analysis gave a good simulation of concrete encased steel composite column subjected to concentric loading.

## 6.2 Suggestion

Suggestions can be given by the author for further research is:

1. Further research about confinement effect in concrete when modelling using Finite Element Model.
2. Further research comparing SNI 1729-2015 with different codes.



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