

## On the FE modeling of a shallow foundation system in the context of soft soil in Indonesia

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### ABSTRACT

The presentation deals with an investigation on the static and dynamic behavior of 5 floors reinforced concrete building supported by a shallow foundation system, called SNSF (Spider Net System Footing). The present study concentrates on the linear static under permanent and life vertical loads and on the free vibrations on the upper structure and the foundations. The study based on 3D solid finite elements includes the soil underneath (one layer of 2m and an additional layer of 7m). Several aspects are investigated like: the structural analysis of the SNSF foundation compared to a simpler raft foundation and the interaction of the soil and the structure-foundation system on the first frequencies and modes of vibration.

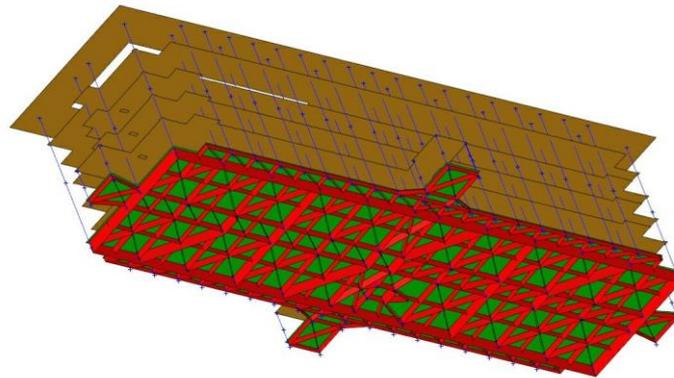


Figure 1. 3D view of building showing the upper structure and supported SNSF foundation system.

### REFERENCES

Darjanto H, Irsyam M, Retno S.R, "Full Scale Load Test on The Spider Net System", 77:11 (2015) 73-82. Jurnal Teknologi (Sciences & Engineering). Universiti Teknologi Malaysia.

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