# THE DESIGN OF HOSPITAL BUILDING USING SPECIAL FRAME RESISTING MOMENT

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**Abstract**

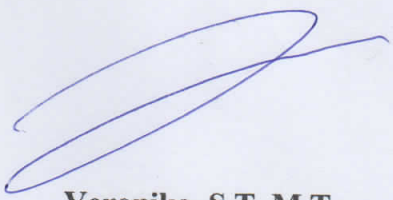
Padang city is considered prone to earthquake disaster due to its location around intersection point between two tectonic plates (Eurasia and Indo-Australia) followed by Semangko fault lines. By such condition, structural building in West Sumatera province must be design safe to carry design seismic loads by assuming the structure are able to resist axial and lateral load applied due to working seismic loads. This article was conducted to design hospital building using special frame resisting moment in Padang city. Structural element of the building including floor slab, beam, column and foundation. Structural design was conducted in accordance to SNI 03-2847-2013, SNI 03-1726-2012, SNI 1727:2013, PBI 1983 followed by relevant literatures. Structural modelling was conducted using ETABS Software to obtain structural response. Based on structural internal forces, the reinforcement required for 15 cm thickness of floor slab are 13 mm bar diameter with spacing at 250 mm on both support and middle area, 30/50 beam dimension with 6 unit of 19 mm diameter bar for tensile reinforcement, and 3 units with similar dimension for compressive reinforcement, 850 mm pile cap dimension and 500 mm pile foundation diameter .

**Keywords: Structure, Reinforced-Concrete, Earthquake, Hospital Building**

**Pembimbing I**

**Ir. Taufik, M.T**

**Pembimbing II**



**Veronika, S.T, M.T**