Abstract
Rawat Inap V.I.P Gatoel Hospital Mojokerto which located in Mojokerto had designed using limited ductility method with mid quake zone, within Mojokerto city and surround. Modified and redesign this building structure using Building Frame System in the same quake zone, which is quake zone 3.

The modifications for this building are the number of floor from 2 floors became 10 floors. This building was designed based on “Tata Cara Perencanaan Perhitungan Struktur Beton Untuk Bangunan Gedung (SNI 03-2847-2002)” and “Tata Cara Perencanaan Ketahanan Gempa Untuk Bangunan Gedung (SNI 03-1726-2002)”. The design result of Rawat Inap V.I.P Gatoel Hospital Mojokerto building structure consist of non SPBL concrete portal with diameter D22, D19, Ø16, Ø12, Ø10, and Ø8 main bar, and for SPBL concrete structure with diameter D25, and D19, shearwall with 40cm thickness, most of the roof use reinforcement concrete while the other use steel construction, and use precast concrete pile foundation with Ø 40cm diameter.

Keyword : Design, Building frame System, Shearwall