ABSTRAK

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Judul : Analisis Sistem Instalasi Listrik di Gedung Kampus STIA YPPT PRIATIM Kota Tasikmalaya

Salah satu fasilitas kampus STIA YPPT PRIATIM Kota Tasikmalaya adalah peralatan listrik untuk menunjang kegiatan belajar dan mengajar serta kegiatan administrasi. Sistem instalasi listrik terpasang tidak mampu bekerja secara maksimal. Penelitian ini dilakukan dengan menganalisa sistem instalasi listrik terpasang mencakup luas penampang/penghantar listrik, pengaman, dan pembumian yang bertujuan untuk mengetahui kesesuaian instalasi listrik kampus STIA YPPT PRIATIM Kota Tasikmalaya dengan standar PUIL 2011. Metode penelitian yang digunakan adalah metode perhitungan dengan beberapa formula dan rumus perhitungan. Hasil penelitian menunjukkan bahwa nilai kemampuan hantar arus (KHA) sirkit utama panel gedung aula sebesar 66,62 A pada luas penampang kabel terpasang 4 mm^2 (standar 16 mm^2). Sistem pengaman pada sirkit cabang gedung administrasi mempunyai gawai proteksi (GP) 54,43 A dan *miniature circuit breaker* (MCB) terpasang dengan pengaman 25 A (standar 35 A). Berdasarkan data tersebut, instalasi listrik di kampus STIA YPPT PRIATIM Kota Tasikmalaya belum memenuhi syarat standar PUIL 2011, sehingga perlu adanya tindakan perbaikan dan pembaruan pada sistem instalasi listrik terpasang demi menghindari kecelakan sistem instalasi listrik.

Kata Kunci : PUIL 2011, Instalasi Listrik, Kuat Hantar Arus, Arus Nominal

ABSTRACT

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Title : *Analysis of Electrical Installation System in Campus Building STIA YPPT PRIATIM Tasikmalaya City*

One of the facilities at the STIA YPPT PRIATIM Tasikmalaya City campus is electrical equipment to support learning and teaching activities as well as administrative activities. The installed electrical installation system is not able to work optimally. This research was carried out by analyzing the installed electrical installation system including cross-sectional area/electrical conductors, safety and earthing with the aim of determining the suitability of the electrical installations on the STIA YPPT PRIATIM Tasikmalaya City campus with the 2011 PUIL standards. The research method used was a calculation method with several formulas and equations. calculation. The research results show that the current carrying capacity (KHA) value of the main circuit of the hall building panel is 66.62 A with an installed cable cross-sectional area of 4 mm2 (standard 16 mm²). The safety system in the branch circuit of the administration building has a 54.43 A protection device (GP) and a miniature circuit breaker (MCB) installed with a 25 A safety device (standard 35 A). Based on this data, the electrical installation on the STIA YPPT PRIATIM campus in Tasikmalaya City does not meet the requirements of the 2011 PUIL standard, so it is necessary to take corrective action and update the installed electrical installation system to avoid electrical installation system accidents.

Keywords: PUIL 2011, Electrical Installation, Current Carrying Strength, Nominal Current