PERANCANGAN DAN PEMBUATAN ALAT PENDETEKSI DURASI PEMADAMAN UNTUK MENENTUKAN *SYSTEM AVERAGE INTERRUPTION DURATION INDEX*(SAIDI)

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Abstrak

Sistem distribusi sebagai sistem penyaluran tenaga listrik yang langsung berhubungan dengan pelangan harus memperhatikan tingkat keandalanya yaitu menyuplai tenaga listrik kekonsumen secara kontinyu. Penelitian ini bertujuan menetukan indeks keandalan SAIDI. *system Average Interruption Duration Index* (Rata-rata Indeks Waktu Pemadaman), berdasarkan durasi pemadaman serta jumlah konsument pada setiap penyulang jaringan distribusi. Metode yang digunakan untuk pengambilan data dari alat yang telah dibuat menggunakan asumsi, alat ini menggunakan *mikrokontroler* sebagai otak perogram dari perancangan alat yang dirancang dan berfungsi menghitung lamanaya durasi mati lampu. Data menghitung kondisi mati dan hidup tersebut disimpan pada sd card. Untuk mengetahui banyak ganguan pelnggan dan jumlah keseluruhan pelanggan maka penulis menggunakan asumsi, asumsi tersebut mengambil dari line tiga pasha yakni R S T, dari ketiga *line* tersebut dilakukan pengujian asumsi sebanyak dua hari setiap *line*. Dari data asumsi yang telah dikumpulkan data keseluruhan pelanggan dan data pelanggan yang mengalami gangguan. Didapatkan data pelanggan keseluruhan 310 dengan pelanggan terganggu rata - rata 88.57 dan jumlah lama gangguan durasi mati lampu 2,95 jam dan telah dihitung nilai saidi padam pelanggan jam perminggu 0.12

Kata kunci:*SAIDI, system Average Interruption Duration Index (Rata-rata IndeksWaktu Pemadaman)*

***DESIGN AND MANUFACTURE OF TOOLS FOR DETERMINING THE DURATION OF THE OUTAGE DETECTION SYSTEM AVERAGE INTERRUPTION DURATION INDEX*(SAIDI)**

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Abstract

Distribution system as a system of distribution of electric power aredirectly related to Subscriber should pay attention to the level of its reliability of elektirik of its reliability of electric power supply ie. konsumen continuously. This research aims to determine the indexto mainstay SAIDI. System average Interruptin Duration Index (average Time index of a blackout), based on the duration of the blackout, as well as the number of subscribers on each penyulang distribution network The methods used for data retrieval from the tools that have been created using the assumptions, this tool uses a microcontroller as the brain programs from design tool designed and function to calculate the duration of his long dead lights. Data to calculate the condition of dead and alive are stored on the sd card. To find out the many distractions and business clients the whole number of customers then the author uses the assumption, that assumption takes from line three pasha IE R S T, third line from the testing assumptions as much as two days per line. From the assumption that data has been collected data on overall customer and customer data that is experiencing interference.in the get custumer data with 310 custumer overall distruption of the average amount of long and 88.57 disturbace duration dead lights 2.95 hoursand has calculated the value of custumer outages saidi hours/week/0.12

***Keyword**s: SAIDI, System Average Interruption Duration Indek (Average Time Index Blackout)*