Perancangan dan pembuatan manual instruksi prosedur pengujian keselamatan kelistrikan Rumah Sakit berdasarkan uji kondisionalitas sistem kelistrikan terinstalasi = Design and build: instruction manual of the electrical safety test procedures for Hospitals which based on conditionality test of electrical system installed

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Abstrak

Permasalahan: Tesis ini merupakan dokumentasi ilmiah kegiatan perancangan dan pembuatan, serta implementasi manual instruksi prosedur pengujian keselamatan kelistrikan rumah sakit yang didasarkan riset terhadap sistem kelistrikan terinstalasinya.
Tujuan: Penelitian bertujuan memperoleh pengujian yang lengkap yang merekornendasi nilai ambang-keselamatan kelistrikan untuk tegangan, arus, dan tahanan berdasarkan standar intemasional National Electrical Code (NEC) dan beberapa standar negara maju, Seperti: publikasi National Fire Protection Association (NFPA), dan standar Association For Advancement of Medical Instrumentation (AAMI) yang diadaptasi dengan kondisi kelistrikan Indonesia.
Metode Penelitian: Menggunakan penelitian kuantitatif yang didukmmg studi litcratur dan pengujian laboratorium, kemudian dilakukan penelitian kualitatif untuk menguji implementasinya.
Hasil penelitian ini berupa langkah-langkah pengujian, disain rangkaian-bantu uji, saran tentang instrurnen-bantu uji yang dibutuhkan, pedoman nilai-nilai ambang kwelamatan kelisuikan untuk sebuah penyelenggaraan pengujian keselamatan kelistrikan di RS, tersusun dalam sebuah manual instruksi yang kompak.
Kesimpulan/Saran: Prosedur pengujian keselamatan kelistrikan yang didasarkan pada elaborasi standar internasional dengan kondisi kelistrikan di Indonesia hasil penelitian ini memiliki kriteria: handal, lengkap, luas cakuparmya, mampu-terap di unit yankes di Indonesia. Penelitian lebih lanjutnya, penulis berencana mcmbuat prosedur dan hasil pengujian dalam bentuk virtual dengan menggunakan perangkat lunak LabView® agar dapat bcrintegrasi dengan sistem informatika rnedis rumah sakit.
<hr><i>Problem statement: This thesis is intended as a scientific documentation of activity in designing, realizing and implementing of the instruction manual of the Electrical Safety Test Procedures for Hospitals which based on conditionality research of electrical system installed.
Purpose: this study is to invent the comprehensive testing that recommended safety limits of voltage, current, and resistance which based on intemational standard: National Electrical Code (NEC) and several standard that used by developed countries, such: National Fire Protection Association (NFPA) publications, and Association for Advancement of Medical Instrumentation (AAMI) which adapted with condition of electrical system in Indonesia.
Researh Methodology: is quantitative, supported by litatature study and laboratory test, afterward qualitative methodology being conducted to test their implementation.
Results: The results of thc study are: testing steps, design of circuit-tests, sugestion of instrumentations for testing-aid and recomendation of safety-limit for conducting electrical safety test in hospitals. Their arranged bein the form of compaq instruction manual.

Conclusion/Recommendations: The electrical safety test procedures for hospitals wich based on elaborated intemational standard with Indonesian electrical system conditions that be produced by this research become established having criteria: reliable, comprehensive and aplicable on healthcare units all around Indonesia. The extensive research, author have plan to make test procedures and results in virtual form by using LabView® software with purpose to integration with hospital medical infonnatics system.</i>