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TRANSFORMER TESTING SYSTEM

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Abstract: -

This project is focusing on creating a Transformer Testing System to be used by industry to get their calculations responded easily through this website. This system helps reduction in testing process time, instant error free calculation report regeneration and increase the testing productivity. This system also provides some features like Alarms for invalid or incorrect measurement, Easy storage, and retrieval of all the test reports, Auto indexing and page numbering of test reports as selected test sequence, Analysis report facility. This system has facility of manual data. Increasing the scope of the system by adding the various test like winding resistance test, insulation resistance test, voltage ratio test, dielectric test, load loss test, no load loss, test type test and special test.

Keywords: Transformer, Testing, Calculation

1. INTRODUCTION

Technology has always evolved with time. With the help of innovation in every sector of working life, life has become much easier. With evolving technology, it has become very easy to find everything needed remotely with the help of few clicks and browsing through stable internet connection. Unlike every sector, electrical sector has also been evolved alongside the growing technology. Electrical design engineer no longer needs to perform huge and complicated calculations to generate testing reports about transformers.

The purpose of making this testing system is to make tester's testing calculations fast, easily to everyone from anywhere with the help of working internet connection. Anyone who needs calculations is provided with Transformer Testing System. Employee either can surf through this web or know which previous report they want. They must select the test and automotive responsive calculation page is open. Anyone can type values and they get quick response. It will display bill of materials through admin at the end.

II. LITERATURE REVIEW

The main objective of this research paper is to propose a transformer testing solution for those students who are registered with senior design project capstone course of bachelor engineering technology program of Government Polytechnic Awasari (kh). During the process of testing, the supervisor likes to choose those projects

designers who are flexible and committed to them for successful completion of their project at the end of the semester. The supervisor is made to be responsible for handling all the tasks of the project which includes but not limited to the selection of title, methodology, budgeting, analysis, and successful tests of the project. Subsequently, the supervisor completely relies on the project designers and remains unable to learn engineering project management tools and techniques. On the other hand, the advisor remains extensively under pressure and becomes a sandwich between a project and management. To discourage the supervisor above mentioned attitude towards machine testing; a transformer testing system has been designed, developed, and tested for electrical industry. The paper describes the step-by-step design and development techniques process of transformer testing system which can be utilized as an integral component of testing- model of engineering education for senior design project anytime and anywhere.

III. BENEFITS

- 1) Reduction in testing process time.
- 2) Instant error-free calculations, report generation & printing.
- 3) Increases the testing productivity

IV. PROBLEM STATEMENT

The basic problem with existing system is that normal calculator/system cannot be able to perform instant error free calculation report regeneration and testing. So, as they need our website provides some features for quick calculations and testing reports.

V. EXISTING SYSTEM

Things going manually like error in particular calculations because in industries we have performed very huge and complicated calculations. No security for data base and no longer backup provided. And all the testing related information is kept in records and that work is also done by man by using manpower so there is chance of doing mistakes.

VI. PROPOSED SYSTEM

In this project you can perform error free calculations very easily. This is controlled by an admin who have full control on all over website. All the testing reports are stored into the Database. so, there is fill security of database, etc. Transformer Testing System provides a platform where all the reports are kept in an arranged way and you can choose your required report by just selecting it from the store after selecting report and view all the description such as bill of material, type of testing, quantity, total purchase cost, etc.

VII. FEATURES

- 1) Inbuilt drivers for automatic measurements acquisition from any type of communicable Test Instrument. Allows editing & entering measurements manually.
- 2) Gives alarms for invalid or incorrect measurements.
- 3) Easy storage & retrieval of all the test reports.
- 4) Prints Test Report complying with IS, IEC, ANSI & SABS.
- 5) Auto indexing & page numbering of test reports as selected test sequence.
- 6) Analysis Report facility.
- 7) Prints detailed test report, short test report & extra short report with single page.
- 8) Facility of printing formulae sheet when required.
- 9) Suggests Capacitor Bank Connection.

- 10) Instant data back-up facility.
- 11) ERP Integration.
- 12) Remote On-line test witness.

VIII. TESTS

Sr.no	Routine Test
1	Winding Resistance Test
2	Insulation Resistance Test
3	Voltage Ratio Test
4	Dielectric Test i) High Voltage Test ii) Induced Over Voltage Test
5	Load Loss Test
6	No Load Loss Test

b) Type Test

Sr.no	Type Test
1	Temperature Rise Test

c) Special Test

Sr.no	Special Test
1	Magnetic Balance Test
2	Harmonic Test
3	Impulse Test
4	PD Test

IX. REFERENCES

- 1) <https://www.slideshare.net/harryz18/fee-collection-system>.
- 2) <https://1000projects.org/feemanagement-system-projectdocumentation.html>

X. CONCLUSION

From this system we can conclude that it provides better transformer testing system and lot of convince than the old system. This process is very fast data can be easily entered lot of time is also saved. It is very easy to understand, and this program can be used in electrical field based on transformer testing.