Chapter-1

1.1 Automation of power systems through SCADA

Aim: The aim of the project is to control the 3 philinduction motors (star delta contactors) through the PLC-SCADA system.

The Technologies are used:

Project was developed in Stamens PLC and the SCADA system was WINCE 6.4

Datalizate given below:

PLC 27-315 2 PN/D#

Communication Fretting

PLC Cuding software | Disc? 3.3

Costing Language Ladiser Logic

SCADA WINCE 7.4

Communication | Ethernet TCP/IF OS | Windows LG and

Programmable Logic Controller (PLC):

This was very occurer CPU which is very rugged for industrial mid-range applications

Technical specifications of PLC:

Medal No. 8007 2/15/2014 (4:0400)

SEA KB work mamony, 0.05ms/1000 instructions; PROFINET connection; 37 Communication (seatistic Risk/RCs) PROFINET CO-Controller; evaporite RI/NET PROFINET interface and 3 ports; MRP, PROFINET CEA, PROFINET CEA-Price; TCP/P transport protocol; combined MR/DP connection [MPI or OP master or OP sizes]; motivider configuration up to 32 modules; constant OP first cross time; restring times as 93.2.

1.2 PLC Hardwere Configuration:



Slot I added power supply module for CPU:

Stot 2 appear CPU modular.

Which is having the MPI/Orofibus and Profiner to immunication with part-1 & port-2

In the project we used Profitois communication, we essigned Profitois address as 2, so CPU will communicate with WinCC SCADA through this address.

PLC code development details:

Shepti

Digital mouts (DI's)

Motorstart : MISS Motorstop : MISS

Stee 2

Digital output's (07s)

Step 3

Oats variable: Run filmer + DR2:09003 (83-bit res liquie)

Step A

1.3 Creation of data block (DB), function cell (FC), and function block (FB):

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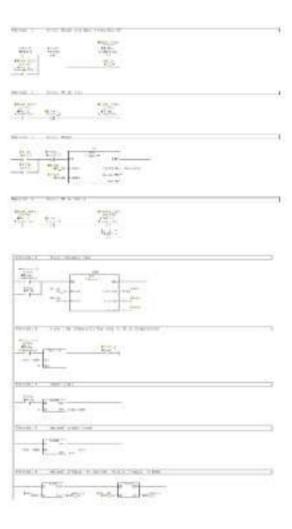
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Function Block (FB1):

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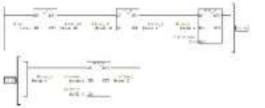
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Function Block (FB2):

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Step 5

Creation of Tags in the SCAGA:

Shap 6

Deather of SCADA MIRRS

Main Screen:



The forces are deschaped in which draphics begins path encapers, motor carest, notice status, and alarm who winness an added in the main sproof, included bag assignments and their properties are added.

For soft hydron of mater control pap-up attivation purpose mouse left slick was used, and dynamic assignment of lag was added.

WinCC Tage:



1.4 The overview of the main screen:

The main screen contains mater control many, soft emergency, fait SEADE and alarm control screens

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titatur Control manu elong with soft buston was prosted for gog-up estilution:



Motor Control Menu



Mater Central Pap-up

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ne first winter main common of women are contained will an efficie that and deleg-

Ser contactor will do-activated and Cobe contactor will on, the main contactor consent on contractories.

Wherever main connector DN, with this ctatus, a timer also will start run automatically, for motor number than palsulation pursues.

The above obserged one has absented from \$20,00 majo farmer.

Force but on Foreign paying many chicked with maccalled tay, motor will be energical and receiving time. who will be receiv.



Motor running with ster



Motor running with Delta



Alarm events also observed through alarm control menu

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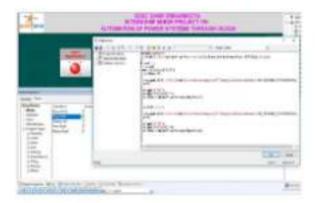
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If the present, there was reall by stopped.



The emergency budge actions were programmed through Carrier.





With amorgancy proceed motor stop senitic scor in the main scream

SUT Selt button also programmed in Country, once this button present with mouse left key. SCADA can be self-from two time.

Exit soft button:



pop-up



C Soriot for writ SCADA:

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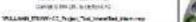
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15.5 WinCC Project Documentation

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Conclusion:

The "study of classical procure in the SUPC Unit." were studied methodough, and based on the innovings acquired from our study. "externation of power system through SCADE" project was served and by the

The interpretation of PLC based ECAON against one developed by the and story out the excessor study about the PLC bardware configuration, PLC and storal particle par

Motor control in standards operation, was programmed in the PLE, and the operator console also developed in the SCADA. The outcome of project was, industrial matter operations are done through SCADA leadily and also can be operated through constativities with 50 with browner.

Future scope:

The present graphs are be used for not only maken and its used for different type of 2 dags attention, 20/000 final external character, extended values, display of various status in provincial and also profess included alternal elements.