

PURPOSE

To reduce MTTR and increase MTBF of the signaling system by providing online status of IPS (of Amara Raja) in user friendly GUI representation at central place (Test room/ supervisors field office etc.,).

To provide consolidated reports to evaluate the performance of IPS to take corrective actions to improve the MTBF of IPS.

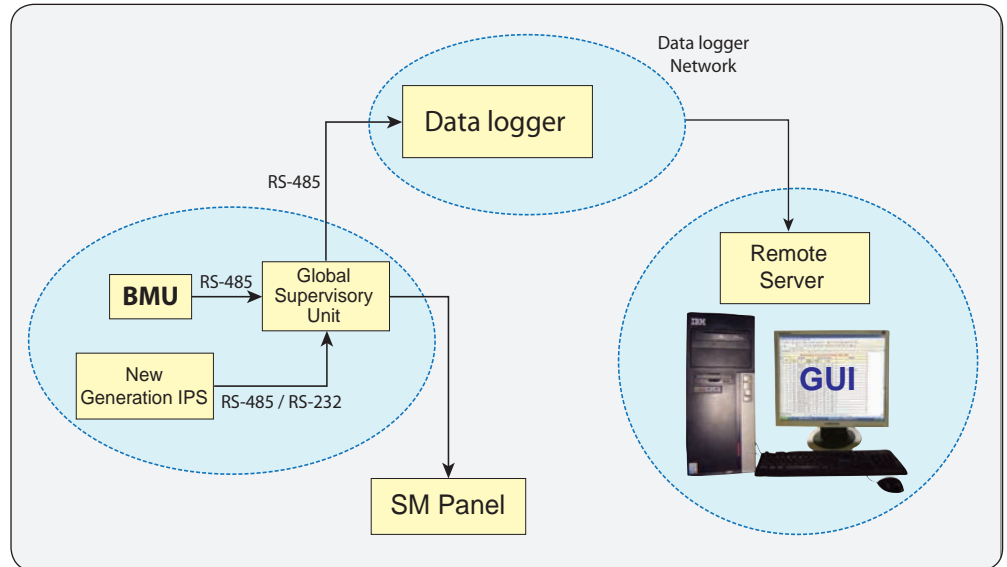
SYSTEM DESCRIPTION

GSU is a processor based system, collects diagnostic data and value of parameters (voltage, current, temperature and frequency) of various sub-systems of IPS.

GSU works as protocol converter to convert the collected IPS data suitable for transmission through existing data logger network to transfer to test room. GSU can also collect data from Battery Monitoring Unit(BMU) where provided.

CMU software receives and process all IPS systems data from Data logger network and displays information on Graphical User Interface(GUI).

BLOCK DIAGRAM



KEY FEATURES

- ❖ Textual alarms are generated in the test room(CMU) based on diagnostic data sent by GSU.
For example,
 - ◆ Specific DC-DC converter fail,
 - ◆ Internal failure details of sub-system etc.,
- ❖ Status of sub-systems linked to 'Signal Monitoring Software' in the test room.
- ❖ Alarms can be sent through SMS to the concern staff/OEM from test room.
- ❖ Periodical auto mailing of reports.
- ❖ Improved audio-visual alarm panel to Station Master.
- ❖ Last 1000 alarms stored in GSU for viewing through LCD in GSU.

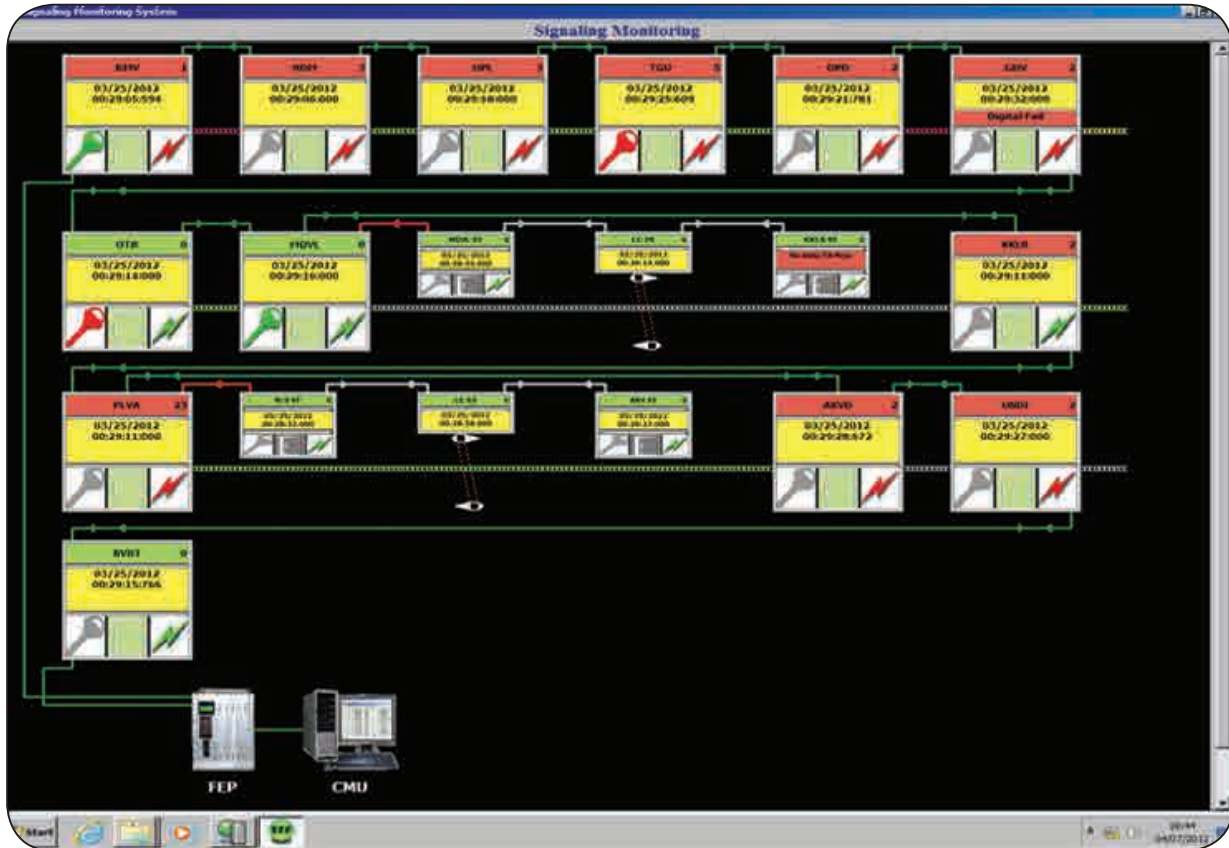
SPECIFICATIONS

- ❖ Operating voltage 110V DC(80V - 150V).
- ❖ Operating Temperature -10°C to +70°C
- ❖ Four Potential Free Contact(PFC) outputs actuated by selected alarms generated by IPS.
- ❖ 0.5GB non-volatile memory(approximately 15days data) prevents data loss in case of power fail.
- ❖ Module wise health status by LED display (for FRBC, ACDP, DCDP and PMU modules)
- ❖ Contains 20x4 Character LCD & 6 keys to view online parameters and offline alarms.

OFFLINE REPORTS

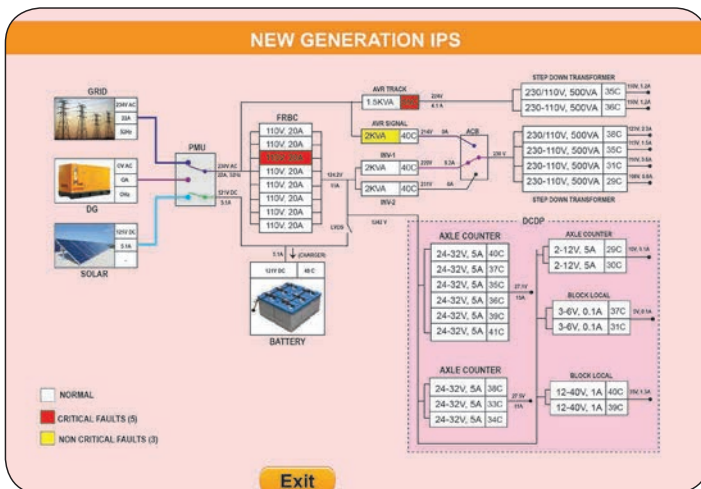
- ❖ Logoff Report: By Selecting the channel parameter and inner modules health will display in graphical format for selected time period.
- ❖ Provides module wise Non-critical & Critical failure counts and details for selected stations in the network for selected time period.

Signal Monitoring Screen :



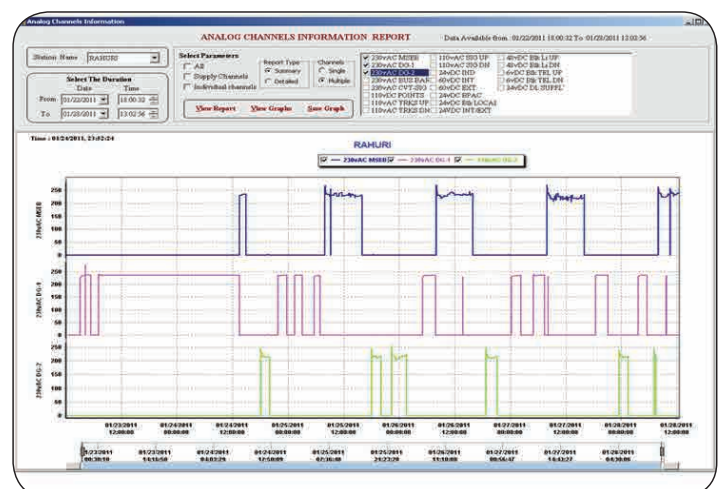
All stations summarized health at a glance.

Station Wise GUI :



Status and abnormalities in each module for each station

Analog parameter Graph :



Analog Channel Graph

'R & D'
Recognised by
DSIR
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Approved by
RDSO
Govt. of INDIA
Ministry of Railways

EFFTRONICS SYSTEMS PVT. LTD.
40-15-9, Brundavan Colony, Vijayawada-520 010, A.P., INDIA
☎ : +91(866) 2466675, 2493375 Fax: +91(866)2474097
E-mail: info@efftronics.com Visit: www.efftronics.com, www.effe.in