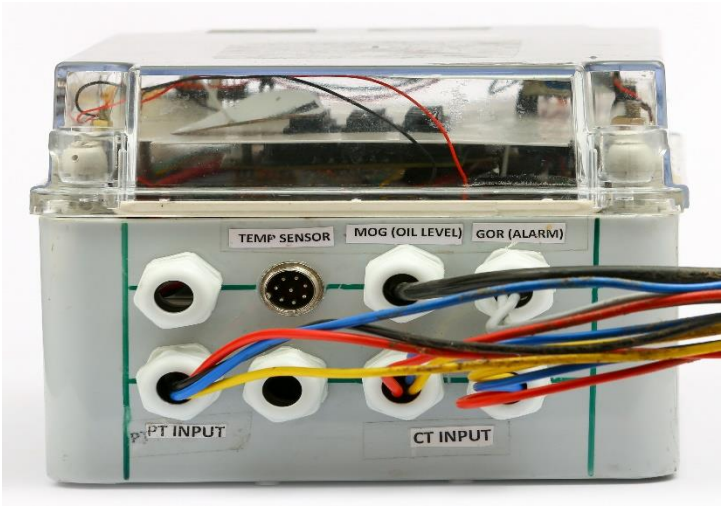
SMART DIESEL GENERATOR MONITORING



The market demand for effective fuel management system derives from the requirement of generator operators to control and monitor fuel usage of generators. More careful monitoring of fuel and generator performance can help detect mechanical and operational problems in generator thereby improving efficient fuel usage.

Teknovate' Smart Diesel Generator Monitoring supports both GSM and Low Power long-range wireless radio frequency technology (LoRaWAN). This highly secured data transmission technology required for Internet of Things (IoT) applications enables real-time communication of data and analytics that can be utilized to enhance efficiency and productivity.

Teknovate' Smart Diesel Generator Monitoring Device is a real time monitoring of diesel generator. The device monitors fuel tank, it provides on/off of the diesel generator set, along with the temperature & voltage, the fuel sensor detects the level of fuel in liters. It triggers an alarm in case there is a sporadic change in the fuel level during Diesel Generator running condition or change in the fuel level when the Diesel Generator is not running. It also provides energy parameters, running hours, fuel consumption, and generator running.

The device communicates with the GSM network or LoRa Gateway using the standard LoRaWAN protocol and the data is transmitted to the network server. The web application processes this data and takes appropriate action like sending SMS, E-Mail and alerts to the registered users also the device has built in LCD which gives notification about emergency condition.

Device Features

- Monitors DG Set parameters:
  - ✓ DG Set On /off status, utilization history
  - ✓ Run time - this day and till date, history
  - ✓ Fuel consumption - this day and till date
  - ✓ Fuel consumption per run hour & Present Fuel Level
  - ✓ Remaining fuel available for no of hours of DG Set operation
  - ✓ Current, Voltage and Kwh
  - ✓ Comparative performance reports
- Live data monitor on web.
- No holes to drill on the fuel tank, ideal for retrofits
- Historical analysis and Data management
- SMS & Email Alert is configured to the registered mobile number.
- Map of sensors
- User control profiles
- Responsive user interface

The device is:

- CEIG Approved
- CPRI Approved

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Applications

- Mining Industries
- Commercial buildings
- Hospitals
- Housing Society
- Manufacturing Industries
- Infrastructure companies
- Electricity boards

Technical Specifications

Wireless Frequency Band	EU 862~870 MHz / US 902~928 MHz / India 865~867 MHz / AS 923 MHz
Modulation	Based on IEEE 802.15.4g
LoRa Solution	Semtech SX-1276
Receive Sensitivity:	Typ. -136dBm @BW=125KHz with SF=10
Transmit Power	20dBm
Number of Channels	Configurable 64 channels (SKU-US) Configurable 8 channels (SKU-EU) Configurable 3 channels (SKU-IND)
Security	AES128
Network	GSM/GPRS
Operation	AC Powered
Antenna Type	Internal/External
Operation Temperature	-20ºC ~ 70ºC
Protection Requirements	IP65

About Teknovate

Today's dynamic world demands businesses to respond quickly through realizing automation in the end-to-end procedure. IoT technology is transforming the way we connect to the devices automatically. Service providers must adopt scalable, flexible and agile models to tap the client's requirements and expectations. Teknovate has responded to this market trend and developing robust and innovative smart city products for its customers. Driven by over decade of industry experience, highly skilled technicians and wide geographical presence, we are continuously expanding our business worldwide and giving stiff competition to other IoT product manufacturers. We supply our products for various business verticals.

TEKNOVATE SOLUTIONS

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Please visit www.teknovateinc.com