

DIGITEC SYSTEMS In Pace With Technology





Put in Action



Digitecsystems – Online Transformer System(OTS)



Power Monitoring System(PMS)



A product of Digitec Systems

ONLINE TRANSFORMER SYSTEM



Product by Digitec Systems -

Home | Online Monitoring | Graphs | All Reports | Raw Data | Settings | About us | Contact Us

Key features:

- Highly reliable
- Easy to install
- Real time monitoring
- Backup battery
- Control transformer on/off
- Transformer temperature
- Auto generate alerts
- Reports
- Graphical data analysis

Remote Monitoring and Controlling:



Real time Status shows on Web and desktop application. Although, desktop application interface allow us to control the input and output. To control the breaker application use user privileges.

onitoringScreen MEPC Modern Communication Modern	n Status Debug Modern
MEPC Fed -1 Juice State Sta	Circuit Breaking Controlling : I/C Switch
 IC Switch Hakim Mursalim DPMT Switch Local Switch F-16 Telenor PMT (Isolation) Timber market feeder Cafe milat feeder Bhoray khan 	Status Of 132 KV : Open Close Differential Trip : High ON Vertication Details User ID: MEPC Password: ••••••••••••••••••••••••••••••••••••

Change the status by GSM modem which log all the events and get real time data from web service to synchronize all the events and logic status.



MonitoringScreen MEPC Modern Communication Modern	Status Debug Modem
MEPC Fed -1 Iiaqatabad feeder 2 Iiaqatabad 2 S/S	Circuit Breaking Controlling : I/C Switch
	Status Of 132 KV :OpenCloseDifferential Trip :HighON
	OC / EF Trip : High
Bhoray khan	Winding Temp Trip : High
	DC Fail of T/F :
	Input Signal of Actual Device (132kv) :
	Circuit Breaker Open : High

Modem Communication tab to inform the signal strength, port and status . Furthermore, Debug modem Continuously show activity of modem and synchronize data.



i						_
ni	toringScreen MEF	C Modem Communication	Modem Status Debug	Modem		
	Modem No	Communication Port	Sim Number	Communication Status	Network Strenght	
-	1	COM3	Modem	Link OK		

Data Analysis:



Graphical view analyze the event on different time.



Control I/O:

Zone Secure, In house developed software Control the I/O through GSM and show the Alerts with Alarm warnings and event must Handled by user with there id.

File Reports Setu	up Help						Digitec
lonitoringScreen	MEPC Mode	em Communicatio	n Modem Status [Debug Modem		s	YSTEMSINC.
Logged User Date time Alert Client Name FORCE GPS Location Password	n		Dol	men Mall	Dauran Sreer 2	Shaheed e Mill	Shara-e-Quran
Site Contact Site Contact Owner Cell Phone 1 Owner 2 Cell Phone 2 Owner 3 Cell Phone 3	2		P EM CO-(HOUS کیار	AKISTAN IPLOYEES OPERATIVE ING SOCIETY پی ای سی	38th Street	PH ezilw N N Later Bhai Memon Osman Issa Bhai Memon	BANC T(
Owner 4			Site Add	ress		test	
Cell Phone 4	c	Handle	Event				Stop Alarm
Alertid	Panelld	AlertDateTim	AlertType	ClientName	Status	^	
5005	11111	5/27/2016 1	Trolley 4 is OUT	MEPC	UnHandled		
5004	11111	5/27/2016 1	EFI 4 active	MEPC	UnHandled		
5003	11111	5/27/2016 1	Trolley 3 is OUT	MEPC	UnHandled		
5002	11111	5/27/2016 1	EFI 3 active	MEPC	UnHandled		
5001	11111	5/27/2016 1	Trolley 3 is OUT	MEPC	UnHandled		
5000	11111	5/27/2016 1	EFI 3 active	MEPC	UnHandled		LINKOK
4999	11111	5/27/2016 1	Trolley 2 is OUT	MEPC	UnHandled		D-0-10-11
4998	11111	5/27/2016 1	EFI 2 active	MEPC	UnHandled		Reset Grid
4997	11111	5/27/2016 1	Trolley 1 is OUT	MEPC	UnHandled	•	





Reports, can be show the data of all event and it can be filter by date time category and id of devices.

		Device Outp	Report	
Device ID	Name Of Signal	Installed Address	Login Status	Date Time
Device1	E/F Relay	Korangi industrial Area branch	High	1/19/2017 12:30:36 PM
Device1	O/C Phase	Clifton branch	High	1/20/2017 1:50:36 PM
Device2	E/F Relay	DHA branch	High	1/21/2017 2:17:36 PM
Device3	DC Failure of incoming circuit	Korangi industrial Area branch	High	1/21/2017 2:17:36 PM

					Alert Report				
Device ID	Nam	e Of Signal	Insta	alled Address	Log	in Status	Alert Date	e Time	
Device1	11KV	I/O circuit	DHA b	ranch	High				1/19/2017 12:30:36 PM
Device1	11KV	I/O circuit	DHA b	oranch	High				1/20/2017 1:50:36 PM
Device1	11KV	I/O circuit	DHA b	oranch	High				1/21/2017 2:17:36 PM
Device1	11KV I/O circuit		DHA branch		High		1/21/2017 2:11:36		
						Device I	nput Ac	tivity	Report
Device	ID	Name Of Signal		Installed Address		Login Status	Pin	Da	ate Time
Device1		11KV I/O circuit		DHA branch		High		1	1/19/2017 12:30:36 PM
Device1		11KV I/O circuit		DHA branch		High		2	1/20/2017 1:50:36 PM
Device1		11KV I/O circuit		DHA branch		High		2	1/21/2017 2:17:36 PM
Device1		11KV I/O circuit		DHA branch		High		1	1/21/2017 2:11:36 PM

Report:

Reports can be download in any format.

AKU-All Alerts Report

4 4	1	of 3?	' 🕨 📔 🛎 🛞 🚱		100%	•	Find	Vext	
lert Id	I	Panel Id	SMSC Time (mm/dd/yyyy)	System Time Ex (mm/dd/yyyy pt	cel le DF	Status	Client Name	Logged User	Remarks
	5054	11111	3/6/2017 11:58:44 AM	3/6/2017 1 W	ord	UnHandled	MEPC	No User	null
	5053	11111	3/6/2017 11:58:44 AM	3/6/2017 11:58:44 AM	14	UnHandled	MEPC	No User	null
	5052	11111	3/6/2017 11:48:10 AM	3/6/2017 11:48:10 AM	015	UnHandled	MEPC	No User	null
	5051	11111	3/6/2017 11:48:10 AM	3/6/2017 11:48:10 AM	14	UnHandled	MEPC	No User	null
	5050	11111	3/6/2017 11:38:45 AM	3/6/2017 11:38:45 AM	015	UnHandled	MEPC	No User	null
	5049	11111	3/6/2017 11:38:45 AM	3/6/2017 11:38:45 AM	14	UnHandled	MEPC	No User	null
	5048	11111	3/6/2017 11:28:45 AM	3/6/2017 11:28:45 AM	015	UnHandled	MEPC	No User	null
	5047	11111	3/6/2017 11:28:45 AM	3/6/2017 11:28:45 AM	14	UnHandled	MEPC	No User	null
	5046	11111	3/6/2017 11:18:11 AM	3/6/2017 11:18:11 AM	015	UnHandled	MEPC	No User	null
	5045	11111	3/6/2017 11:18:11 AM	3/6/2017 11:18:11 AM	14	UnHandled	MEPC	No User	null
	5044	11111	3/6/2017 11:08:10 AM	3/6/2017 11:08:10 AM	015	UnHandled	MEPC	No User	null
	5043	11111	3/6/2017 11:08:10 AM	3/6/2017 11:08:10 AM	14	UnHandled	MEPC	No User	null
	5042	11111	3/6/2017 10:58:45 AM	3/6/2017 10:58:45 AM	015	UnHandled	MEPC	No User	null
	5041	11111	3/6/2017 10:58:45 AM	3/6/2017 10:58:45 AM	14	UnHandled	MEPC	No User	null
	5040	11111	3/6/2017 10:28:44 AM	3/6/2017 10:28:44 AM	015	UnHandled	MEPC	No User	null
	5039	11111	3/6/2017 10:28:44 AM	3/6/2017 10:28:44 AM	14	UnHandled	MEPC	No User	null
	5038	11111	3/6/2017 10:18:10	3/6/2017 10:18:10	015	UnHandled	MEPC	No User	null



Visual Analytics:









Put In Action

Digitec Systems believes in working with complete dedication and utmost effort. We are sure that our understanding of the project will convince K-Electric authorities and K-Electric will trust us for this project. The solution offered by Digitec Systems will make the whole **OTS** process automated.

The solution proposed by Digitec Systems is the need of the time for K-Electric. **OTS** will facilitate the members of K-Electric to take calculated decision even in distant locations, and thus maximum participation of members will be ensured. We are sure that our **OTS** will be considered for the upcoming K-Electric projects and the engineering team of Digitec Systems will be trusted to serve the K-Electric for this project.

Technical:



The Online transformer system **OTS** consist of the following subsystems which are install near the transformer; the panel is mounted near the transformer.



Main Control Unit (MCU)

This unit works on DC 12v input, it has GSM/GPRS modem installed for communication. The GSM (Specifications below) communicates with the MCU messages over the GPRS network using internet. The MCU updates a dedicated website set up for this purpose. This site can only be accessed by an authorized person so as to monitor the network. The MCU has ability for generate the alert and. It is not only monitors the transformer but also control ON/OFF state and also update the site in real time thus making an ideal solution.



Sensors and mechanical work

This unit is installed near the transformer switch it keeps monitoring the output. Voltage, current, power factor, energy, temperature, battery volt and on/off the transformation and continuously sends information to MCU which proceeds further. By using command we can shut down the transformer.

The Battery Backup

The backup batter provides a backup time of 12 hours. It has a built in 12 volt 7 amp sealed battery And the charging unit. There is also a provision of sending the status of the battery to MCU in case there Is a fault in the unit thus providing more secure solution.

Website

A website is made to monitor the transformers; only an authorized person can login to the website and Can monitor the transformer this allows easy access from anywhere, just the administrator or any authorized Person needs to connect to the internet. It would be possible to view The meter status in graphical as well as tabular form. It would also be possible to show real time parameters And set the limits on different parameters to show the alerts.

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