

## **MINI SCADA + GSM/GPRS REMOTE MONITORING & CONTROL OF WATER SYSTEMS**

COMPACT – RELIABLE – AFFORDABLE – CENTRALIZED CONTROL OF PUMPS & TANKS

Due to spread out and remote locations of Water supply tanks and Pumps/ Valves, both the storage and availability of Water as well as distribution control are difficult. Dependence on Pump attendants makes a mockery of Supply system of this most critical commodity.

Without the availability of information at the management level, water supply at best is an inefficient process.

An important requirement is

- a) Centralized availability of information Water level in every tank.
- b) Local automatic Control of Pumps and valves based on level in tank, with data being available at the central location.
- c) Alarms at Central location if the pumps have not been operated when due.
- d) Centralized over-riding control.
- e) Consumption pattern based on data received.

**ACTIVE CONTROLS** have developed Mini SCADA Systems in combination with GSM/GPRS transmission of data that help in Centralized Monitoring and Control of water supply and Distribution Control System.

### **The arrangement is as under**

On each Tank, sensors and Controllers are mounted for Level monitoring and Pump Control operation.

All these controllers transmit data over GPRS to the control room (Central office) The Control room has a computer (PC) with broadband (internet ) connection and a static IP allocated to the computer.

On each of the source bore wells/ pumps, a GSM GPRS control unit is installed to control the pump and to give the feed back input.

Mini customized SCADA software is loaded for monitoring and control of all the pumps and Water Level in tanks.

### **Features of the SCADA are as follows**

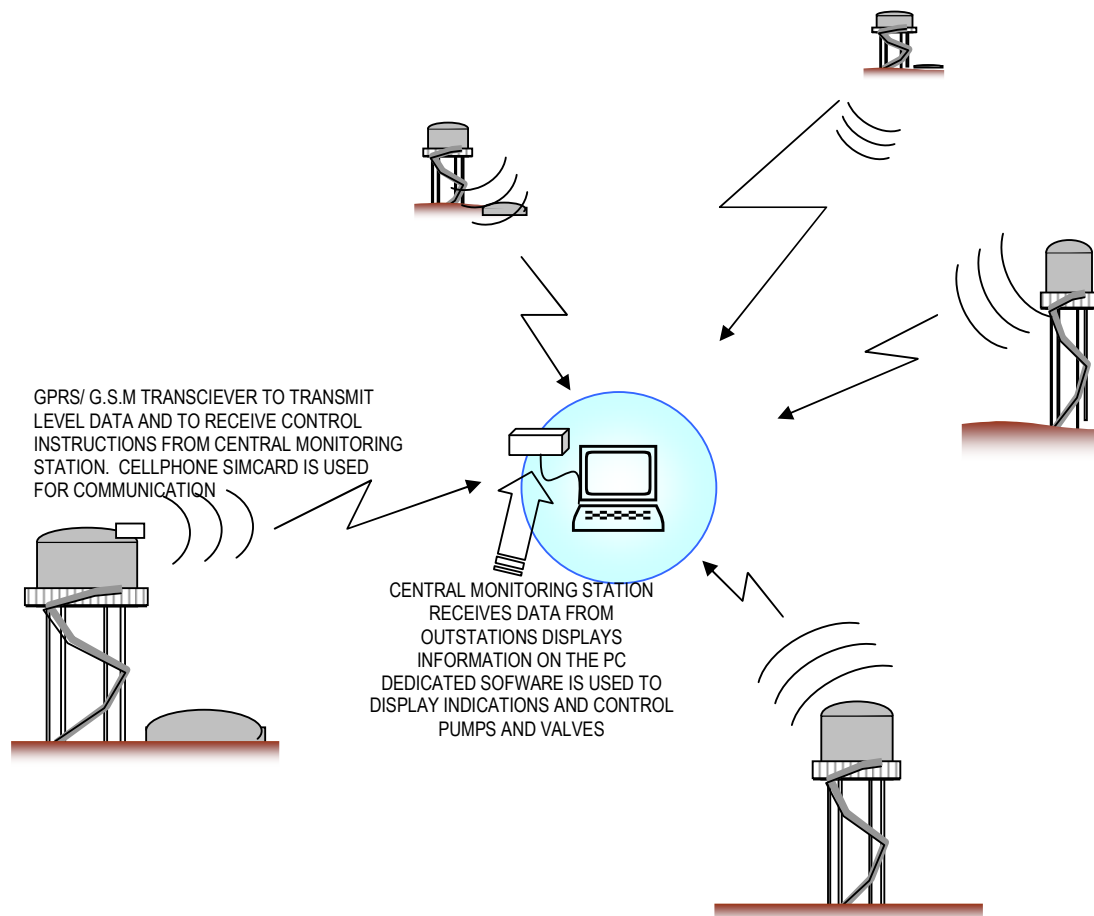
1. Showing mimic display of Levels of water in all the tanks
2. Automatic programmable sequence of pump operation.
3. Full manual operation option
4. Data storage for MIS
5. Display fault condition.

Normally open potential free contacts are provided at pump location to operate the pump.

All controls are centralized on the PC in office. Level Indicators provide the percentage level filled in the tank. Pumps are programmed to be controlled at desired levels. Manual Control is possible at any time. Data for pump operation and levels at any time is stored and can be retrieved.

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## CONCEPT LAYOUT



Automation is based on the Management's requirements and operates on Level, Pressure, Flow and Real time.

Information of all these factors is available at the Central location, possibly with additional repeater at a maintenance staff location for taking immediate action in case of any deviation.

All Level Instruments and Controls are manufactured by Active Controls.

All software is dedicated and designed for the specific needs of the project.

All Data transmission is based on GSM/ GPRS hence the coverage of area with reliable GSM network is necessary.

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