Online Irrigation Control System

Challenge of farmer: A farmer has several challenges while pumping water into the field. He doesn't know if there is a lot of trash collected into his filter. As a result of which the flow of water is reduced and load on motor increases. Further, if he comes to know about it he has to go all the way to the pump and remove this trash manually. Also, he is unaware if anybody is tampering with his pump. Moreover, in farming a farmer can't pump water in his field at all times; there are schedules as per the crop implanted. If the schedule goes wrong then his entire implantation can go waste.

Solution Provided by Arun InfoTech: Arun Info Tech has created an automatic system to solve the above challenges of the farmer. This automatic system can be controlled by desktop application, GSM, GPRS and USB keyboard as well. We have created an automatic system to schedule the timings of motor start and stop. Battery backup also stops automatically when power starts. The system keeps on checking if mains supply has started, if such is the case then battery automatically stops. In the field there is a filter which stops the trash from entering the filed. Also in the system there is a facility of back-flush. This back-flush happens automatically when trash gets accumulated in the filter. Single filtration unit consists of four back-flush valves. We have created the system which alerts if someone tampers with it. Finally, data logs from last 48 hours are stored in to the system.

Below diagram depicts a 3 phase motor controller which controls the contactor switch. The contactor switch controls the flow of water through pump into the filtration unit. Here there is a pressure sensor which senses the pressure of water and decides when to back flush. Further, filtered water flows through solenoid valves into the field.

GPRS/WEB/ANDROID

Internet
Cloud

8/16/32
Solenoid valves

To The
Field

CONTROLLER

FILTRATION
UNIT

PUMP   PUMP   PUMP

Lake   Canal   Wel