



Prince Mohammad Bin Fahd University, Saudi Arabia

University Safeguards Irrigation Equipment Using Rain Bird® Central Control

Prince Mohammad Bin Fahd University (PMU) is located on the eastern coast of Saudi Arabia next to Half Moon Bay and the Arabian Gulf. This modern campus features extensive landscaping, which is irrigated by water supplied by the city or drawn from underground wells and stored in tanks.

THE CHALLENGE

PMU's irrigation system utilizes one of three booster pumps. Each pump is connected to its own water supply; one to a tank of ordinary water, one to a tank of treated water, and one directly to well water. Since running a tank pump when the water level is low could damage it, the landscape team must monitor water levels and manually select which pump should be used based on available water supply. As one could imagine, PMU is eager like to automate this time consuming task.

THE SOLUTION:

The landscape department will upgrade its central control system using technology from Rain Bird, the industry leader in intelligent water management. The new system will automatically control which pump is used for irrigation based on water levels. This will prevent damage to the booster pumps and save PMU a significant amount of time and manpower.



Rain Bird Central Control

Core Products Used:

- Rain Bird Central Control
- ESP-SAT Series Satellite Controller
- ESP-SITE-SAT Series Satellite Controller
- FS Series Flow Sensors
- WS-PRO2 Weather Station

KEY OBJECTIVES

- ✓ Increase System Efficiency
- ✓ Automate Time-Consuming Tasks
- ✓ Prevent Equipment Damage



APPROACH:

Install Rain Bird Central Control

Rain Bird's **Central Control** system will be able to manage and monitor the demand placed on the university's limited water sources. The Central Control 'if-then' logic will ensure the **ESP-SAT Controllers** and tank float check tank water levels before using water from either of the tanks. Similarly, if the water in the tank falls below the low fill level during irrigation, Central Control will interrupt the schedule and automatically use the other tank or well to complete the irrigation cycle. The system will also turn the well pump on to fill the tank if the water level has dipped too low, and switch the pump off after the tank is full.



“ Rain Bird Central Control has allowed us to efficiently manage the irrigation system and safeguard the operation of our pumps.

ENGR. SAMI A. HASSANIN
HEAD OF LANDSCAPE & IRRIGATION
SERVICES DEPARTMENT,
ENGINEERING & TECHNICAL AFFAIRS,
PRINCE MOHAMMAD
BIN FAHD UNIVERSITY

RESULTS:

An Efficient and Durable Irrigation System

“Using Rain Bird's Central Control 'if-then' programming logic, I was able to create irrigation schedules that helped the operations team automatically control which pump was used based on tank fill levels,” said Amr Hussein, Rain Bird International's service engineer. Thanks to automatic pump control, irrigation cycle management, and storage tank fill level monitoring, the University's landscape department is now able to better manage the irrigation system and prolong the lifespan of their equipment.