PROJECT SUMMARY

PROJECT NAME: Nian Dam
PROJECT DATE: 2017-2018
CLIENT: Hormozgan Regional Water Company
CONTRACTOR: Didas construction Company
CONSULTANT: Moshanir Consulting Engineers Co.
INSTRUMENTATION SPECIALIST: Larzeh Sakht Savalan

OVERVIEW
Nian Reservoir dam project is designed to prevent seasonal flooding and for the collection of water for agricultural purposes.

It is a clay core earth-fill dam with the height of 27.3m and crest length of 510m with four radial spillway gates and an inflow of 4630m³/s surface water, artificial feeding intake and semi-deep discharge system.

It is located 70km from Bandar Abbas.

Latest work includes the installation of Geosense sensors to automate existing sensors which were installed during dam construction.

MONITORING
Monitoring of the dam construction integrity and long-term safety is being carried out by recording measurements in the following key areas:

- Main dam body
- Water pressures in the core shell
- Inclination in the core & shell
- Settlement in the core & Shell
- Groundwater levels

All existing VW sensors were double checked using the VWR1 readout unit.

PRODUCTS USED

Stand Pipe Piezometer
Measurement of pore water pressure

Inclinometer Casing
For use with portable inclinometers

Dip Meter

Portable MEMS Inclinometer system
For measuring lateral displacement

Reed switch probe
For use with the GEO-XM system

VW Readout VWR1
Measures all types of vibrating wire instruments

G8 PLUS Data logger

Remote Smart Mux 12 CH & 6CH
A modular multiplexer that allows the management of multiple sensors as part of a remote or automatic data acquisition system.

Smart Mux Interface