

Improving Sustainable Groundwater Management of the Lower Valley of Medjerda Bassin

SMART_IWRM Medjerda

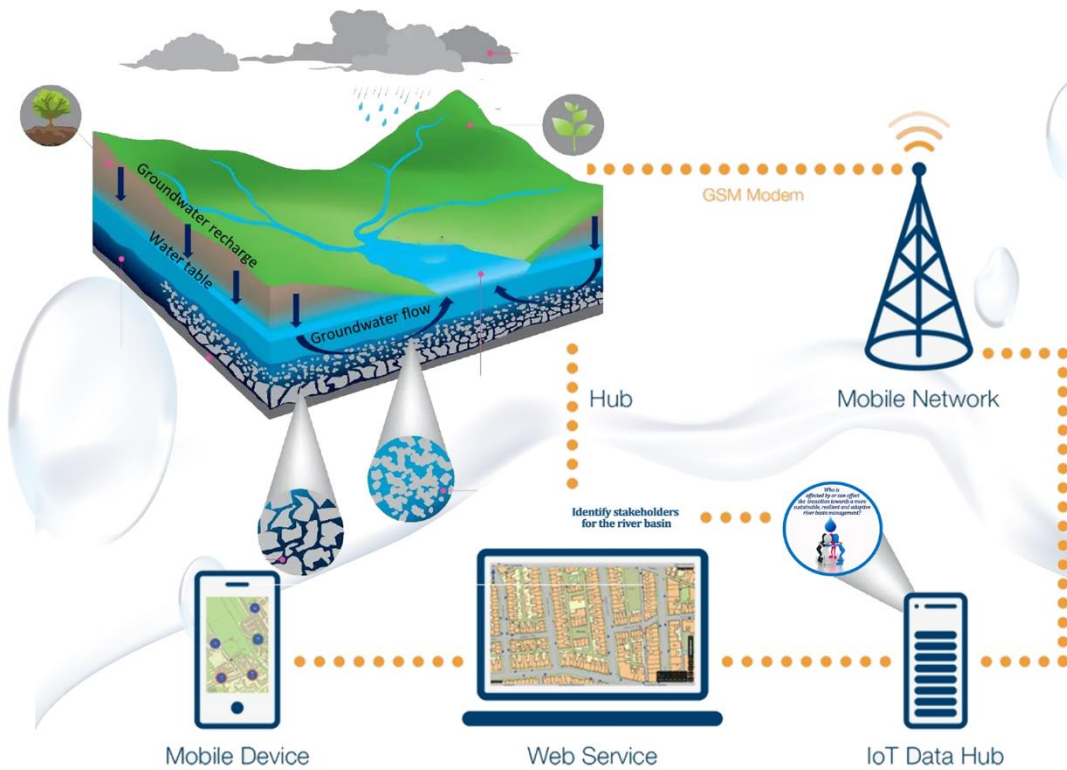
Newsletter # 03

December 2019



Improving Sustainable Groundwater Management of the Lower valley of Medjerda Bassin

PEER Program Cycle 7 (NAS_USAID)



Newsletter Topics

- Training Course Engineering Students on groundwater quality monitoring
- Training Course for young entrepreneurs on groundwater quality monitoring

- Summer School "Use of GIS, Remote Sensing and Geostatistical tools in groundwater potential Mapping"
- Workshop "Groundwater Prospecting using Geophysical Techniques"

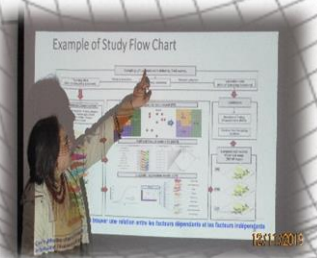
Training Course for Engineering Students on groundwater quality monitoring

Event Title: Training Course for Hydraulic and planning Engineering Students on groundwater quality monitoring

Event Dates : 22&29th October 2019

Participant Description: Hydraulic and planning Engineering Students (3rd level)

Event Description : Show future Engineers the various new sampling technologies and smart monitoring water quality levels in the field and the laboratory



Summer School “Use of GIS, Remote Sensing and Geostatistical tools in groundwater potential Mapping”

Event Title: Summer School “Use of GIS, Remote Sensing and Geostatistical tools in groundwater potential Mapping”

Event Dates : 12&13th November 2019

Participant Description: Young researchers (PhD, master) and engineering students

Event Description :

During two days :

- Three theoretical lectures are presented about the (i) Application of GIS, Remote Sensing & Geostatistical Tools in Groundwater Potential Mapping (ii) Presentation of Frequency Ratio Model (iii) Application of Frequency Ratio Model on groundwater mapping.
- Practicle exercices are ensured on the application of RS, GIS and Frequency Ratio model for groundwater potential Mapping using ArcGIS, SAGA GIS & SPSS softwares.

Workshop “Groundwater Prospecting using Geophysical Techniques”

Event Title: Training course “Groundwater Prospecting using Geophysical Techniques

Event Dates : 21st November 2019

Participant Description: Young researchers (PhD, master) and engineering students

Event Description :

During this training, an expert in Geophysics has presented a theoretical training on the different methods of geophysical prospecting applied to groundwater exploration. After that, practical fieldwork was made using the geophysical instrument “Electrical Resistivity Tomography ERT system 2D/3D”.



Training Course for Young Entrepreneurs on groundwater quality monitoring

Event Title: Training Course for young entrepreneurs on groundwater quality monitoring

Event Dates : 28th October 2019

Participant Description: Young Entrepreneurs

Event Description : Show young entrepreneurs the various new sampling technologies and smart monitoring water quality levels in the field and the laboratory

SMART_IWRM_Medjerda Project

SMART_IWRM_Medjerda

"Improving Sustainable Groundwater Management of the Lower valley of Medjerda basin" is the Research & Development project funded by the [PEER cycle 7 program](#) (NAS_USAID) and led by the [Higher School of Engineers of Medjez El Bab \(ESIM\)](#) and the [U.S. Geological Survey USGS](#).

PEER program (NAS_USAID)

[The Partnerships for Enhanced Engagement in Research \(PEER\) program](#) is a competitive awards program that invites scientists in developing countries to apply for funds to support research and capacity-building activities on topics of importance to USAID and conducted in partnership with U.S. Government (USG)-funded and selected private sector partners. The program is supported by [USAID](#) but implemented by the [U.S. NAS](#).

Specific Objectives

[SMART_IWRM_Medjerda](#) project aims to support groundwater resources management of the Lower valley of Medjerda River basin based on IWRM principles through three main pillars :

- Overall initial assessment of groundwater resources availability and quality
- Data management & Numerical simulation of water resources
- Capacity Development

Expected Results

- Implementation of a **smart water monitoring system using IoT platform**
- Development of a **GIS modelling platform based decision support system tool (DSS)** that can be used by managers in water-resource decision making.
- Improve **capacity building** of water stakeholders and **empowering women role** in water sector