Laboratories of the Department of Dams and

Water Resources Engineering

Soil Water Physics and Management Laboratory

Soil Physics Laboratory: It is one of the laboratories of the Department of Water Resources Engineering of the College of Engineering at the University of Mosul. It is concerned with the study of soil and its physical characteristics and classification in addition to the movement of water in it. The laboratory serves students of studies Primary and postgraduate studies It also provides the necessary equipment to conduct practical research for the department's teachers interested in this Domain.

The laboratory consists of a large classroom in which the method of experiments is explained to students of preliminary studies, then Conducting laboratory periments It also contains a room for the laboratory administrator and a rest for the teaching staff and also a store-to-store devices and chemicals

The laboratory has different devices to study the soil and the movement of water such as:

1 - Permeability measuring devices and requirements for finding the volumetric distribution of soil components (sand, silt and clay)

2 - Devices for measuring soil salinity EC

3 – Soil acidity and alkalinity pH estimators

4 - Supplies for measuring the tip (infiltrate) in the soil

5 - Electric sensor balance

6 - Devices to measure moisture tension in the soil Tensiometers, experiments are also conducted to find out the wilting point, field capacity, Solid density, and Bulk density of the soil.

7 – Electric oven.

8 – Water distillation device used to obtain distilled water from ordinary water

The laboratory has devices for distilling water used in various experiments, and there are field supplies, including the augur Used to obtain soil models at different depths, the following table shows the available equipment in the laboratory.

S	equipment Name	equipment Function	equipment Image
1	Hydrometer	To find the percentage of soil grains	
2	EC meter	Estimation of the amount of salts in the soil	
3	pH meter	Measuring the pH of solutions Chemical	
4	Double ring	To measure soil infiltration	
5	balance sensitive electric	To find the exact weights	

6	tensiometer	Soil moisture measurement	
7	Electric oven	Drying of soil samples	
8	Distillation device	for distilled water