**AKPORUERE DAVID 17/ENG03/010**

**1. HEC-HMS**

The Hydrologic Modeling System (HEC-HMS) is designed to simulate the hydrologic processes in basins. The software includes traditional procedures of hydrologic analysis, such as infiltration events, unit hydrograms and routing. HEC-HMS also includes modules for evapotranspiration, snow melting and calculus of soil humidity.

### 2. iRIC

iRIC (International River Interface Cooperative) is a software developed with the purpose of offering a complete simulation environment of the riverbed and its results can be exported and used to analyze, mitigate and prevent disasters, through the visualization of the results of the river simulation.

### 3. MT3DMS

The MT3DMS package is a mass transport model coupled to a flux model in MODFLOW. The MT3DMS code simulates advection, dispersion/diffusion and chemical reactions of adsorption/absorption of contaminants in groundwater.

### 4. R

R is a programming language for statistic calculations and graphics generation. It is easy to understand and makes it possible to make complicated analysis with just a few lines of code.

It is the best option to perform spatial analysis since it incorporates several interpolation options.

### 5. Python

This is the favorite code for scientific, water resources and environment analysis. It has several packages for different tools such as GIS, mathematical analysis and artificial intelligence.

If a complete tool for manipulation, processing and plotting of data is needed, Python – Scipy is an effective, versatile and free code solution.

