**اَللهُمَّ اِنّيْ اَسْاَلُكَ خَيْرَ الْمَوْلَجِ وَ خَيْرَ المَخْرَجِ بِسْمِ اللهِ وَ بِسْمِ اللهِ لَجْنَا وخَرَجْنا وَعَلى ربِّنَا تَوَكَّلْنَا**

Assalamu walaikum

## **Advantages**

* Simulation helps to learn about real system without having the system at all.
* It can avoid danger and loss of life.
* Conditions can be varied and outcomes investigated.
* Critical situations can be investigated without risk.
* It is cost effective.
* Can use it to find unexpected problems.
* Able to explore ‘what if…’ questions.
* Simulations can be sped up so behaviour can be studied easily over a long period of time.
* Simulations can be slowed down to study behaviour more closely

**Disadvantage**

* Mistakes may be made in the programming or rules of the simulation or model.
* Expensive to build a simulation model.
* Expensive to conduct simulation.
* Simulation results may be difficult to interpret.
* Simulation and analysis can be time consuming.
* Simulation is used in some cases when analytical solution is possible or even preferable.
* Simulation modeling solves real world problems safely and efficiently.