



Benha University

## Advanced Algorithms CES 608

Computer Systems Engineering  
Electrical Engineering Department



Faculty of Engineering  
(at Shoubra)

### Semester Project

#### Problem Statement:

Using your preferred programming language, implement and simulate different sorting algorithms taught during *Advanced Algorithms* course.

#### Deliverables (in electronic form):

1. Complete source code (in a ready to work state)
2. Running time vs. problem size
  - a) Best case
  - b) Average case
  - c) Worst case
3. Justification of simulation results compared to asymptotic notation
4. Estimation of hidden constants in asymptotic notations from simulation results

#### Due Date:

The same day as the final exam.

#### Grading:

**20 marks.**

Good Luck  
Dr. Islam ElShaarawy