

## CS603: Assignment-2

Date : Feb 16, 2024

Geometric Algorithms, Spring 2024

Due: 11:59:59 pm, Feb 24, 2024

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1. Please read the instructions below carefully.
  - (a) Do not copy your code from another student or from the internet.
  - (b) No submissions will be accepted beyond the mentioned deadline.
  - (c) Submissions should be made on Moodle.
  - (d) There is no restriction on the programming language to be used for implementing the algorithms.
  - (e) The input would be given as an array. A point is represented by a pair of values.
  - (f) Name your submission folder as “roll.zip”, where roll denotes your roll number. For example, if your roll number is 203145, then name the submission folder as “203145.zip”.
  - (g) Include a script file which takes appropriate input and runs your code. Name that file “test.sh”.
2. **(100 points)** Let  $P$  be a set of  $n$  points in  $\mathbb{R}^2$ . Compute and plot the Voronoi Diagram of  $P$  using Fortune’s algorithm, such that given a query point  $q$  it can indicate the Voronoi cell it belongs to.