

Design and analysis of algorithms for large data

Lecturer: Nutan Limaye

Grading policy and attendance policy

The grading policy for the course is as follows:

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| 1. Take home assignments | 25% |
| 2. Attendance* | 5% |
| 3. Group Project | 15% |
| 4. Midsem | 20% |
| 5. Endsem | 35% |

* DX grade will be allotted if the attendance is below 70%.

Course content

This course will focus on algorithms for large data. The course is vaguely divided into four modules.

- Algorithms for large datasets – frequency moments computations.
- Algorithms for problems in linear algebra – dimension reduction, norm computation.
- Algorithms for graph problems.
- Lower bound results via information theory.

The first two modules will be discussed before the midsem and the last two after the midsem. For finding out more about the course details, check the notes of the last offering of the course, which are available at: <http://www.cse.iitb.ac.in/~nutan/cs602-2014.html>.

Announcements

Given below are some important announcements regarding the next few classes.

The class on Jan 09, 2015 is cancelled. The next class will be on Jan 14, 2015.

The handout contains 8 exercise problems. Solving these exercises is your **first assignment**. You are expected to submit this assignment on Jan 14, 2015 during the class. Collaboration is encouraged, but all writeups must be done individually and must include names of all collaborators.

The quiz conducted today was a prerequisite quiz. If you have not done well in this quiz, please try to solve it again at home (it will be uploaded on Moodle on the weekend). Also revise basics of design and analysis of algorithms and probability theory before the next class.