

Optional Assignment: 2.5 bonus marks

Objective: After doing this *optional* assignment you will learn about an application of “Differential Equations” in your major subject.

Motivations and Incentives: If you do this assignment efficiently, you will learn about the importance of differential equations in real-life modeling problems. You will also get up to 2.5 extra marks for doing this assignment.

Deadline: April 17, 2007 at 12:00pm.

Procedure: If you want to do this assignment:

- Find a differential equation (possibly a well-known one) used in your major area.
- In “at most” 200 words explain the applications and the importance of that chosen DE. You should also clearly state what the variable and the function stand for in that equation. Your explanations should include the order of your DE and whether it is linear or nonlinear.

Important Notes:

- This assignment should be done individually.
- This research report should be limited to “one page” only.
- Do **NOT** forget to give references exactly; otherwise, that would be a sort of “*plagiarism*”.
- You need not try to solve the DE, but if you can find its solution or if the solution has interesting features that you would like to discuss, you may want to include the solution and/or relevant graphs too.

Good Luck