

PROJECT PROPOSAL

DELHI TECHNOLOGICAL UNIVERSITY

Department of Applied Mathematics

I Semester

> Project Details

Topic: Multiple Integrals and Riemann Sum

Subject: Mathematics I (MA 101)

> Project by

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> Project Supervisor

Dr. Goonjan Jain

> Project Introduction

In this project I am going to study about Multiple Integrals restricting to our syllabus that is Double Integrals and Triple Integrals. Double Integrals and Triple Integrals can be used to find areas and volumes of different figures. Multiple Integrals study includes various topics such as changing of variable and different type of systems from which we can calculate double and triple integrals easily. Riemann Sum is a certain kind of approximation of an integral by a finite sum. Riemann Sum helps us to visually understand the meaning of areas and volumes. There are so many applications of multiple integrals in real life and I go through some of them.

> Project Objective

Objective of this project is to study about Multiple Integrals focusing on double integrals and triple integrals.

Understanding and visualising the concept of Riemann Sum is my main focused objective. I will find areas and volumes of some of the standard figures in mathematics from both Multiple Integrals and Riemann sum.

Date:

February 5, 2021