## Indian Institute of Information Technology, Vadodara

Parallel Programming(cs403)

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Lab 03

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## 1 Introduction

Let A be a square matrix. If there is a lower triangular matrix L with all diagonal entries equal to 1 and an upper matrix U such that A=LU, then we say that A has an LU-decomposition. It can be helpful in calculating various types of operation on matrices. Here L matrix has the upper triangular values as 0 and U has lower triangular values as 0 and diagonal values same as that of the original matrix.

- 2 Algorithm
- 3 Serial Code
- 4 Analysis using Valgrind