**FAST- National university of Computer and Emerging**

**Sciences**

**CS 326: Parallel & Distributed Computing**

**PROJECT PROPOSAL**

1. **OBJECTIVE:**

To perform task parallelism in the word counting. To use efficiently the OpenMP in order to do the task in parallel and utilizing the multicore system by means of multithreading by applying the Granularity Techniques and draw a conclusive statement.

1. **METHODOLOGY:**

The methodology is defined below:

* **Data Decomposition:** We will use folders and subfolders that will have text files on which the word count will be performed
* **Speculative Decomposition:** We will identify which tasks can go in parallel and which cannot. We will use the conservative approach.
* **Shared Memory - OpenMP:** Threads will be explicitly created according to the problem. Barrier, reduction and sections will be used.
* **Time Calculation & Comparison:** Timing of both Fine-Grained and Coarse-Grained methodologies will be calculated and later compared.

1. **PLATFORM:**

* **Language: C++ / Python**
* **Library for Multithreading: OpenMP**