Low pass filter project   
team 2

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Section | Department | ID |
| مروان أحمد محمد فوزي | 5 | IS | 20191700616 |
| ياسمين محمد خالد | 6 | IS | 20191700811 |
| سارة مصطفى محمد | 3 | IS | 20191700271 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| test | N\*N | 2N\*2N | 5N\*5N | 10N\*10N | 10 pic 5N\*5N |
| Sequential | 835 ms | 3307 ms | 21266 ms | 84261 ms | 891342 ms |
| MPI sol | 252 ms | 932 ms | 5014 ms | 21392 ms | 242634 ms |

Enhancements :

Accuracy :

* covered edges and corners of the picture by checking before access to keep considering the edges and corners pixels
* performing average calculating step is enhanced with a counter to check if any lost pixels
* sending the data to processors is sending the whole image to cover the collision points

time :

* working with all available processors
* in sequential solution we changed the kernel code to another with less conditions as no collision points between the processors but calculations done on the old code to prove time changes with the parallel solution