

به نام خدا

على عطاءاللهی

۸۱۰۱۹۹۴۶۱

گزارش خروجی پروژه سوم

serial :

```
ali_ata@ubuntu:~/Desktop/working3/project3/project/serial$ ./ImageFilters.out input.bmp
Execution Time: 0.02
ali_ata@ubuntu:~/Desktop/working3/project3/project/serial$ ./ImageFilters.out input.bmp
Execution Time: 0.019
ali_ata@ubuntu:~/Desktop/working3/project3/project/serial$ ./ImageFilters.out input.bmp
Execution Time: 0.019
ali_ata@ubuntu:~/Desktop/working3/project3/project/serial$ ./ImageFilters.out input.bmp
Execution Time: 0.019
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Execution Time: 0.019
ali_ata@ubuntu:~/Desktop/working3/project3/project/serial$ ./ImageFilters.out input.bmp
Execution Time: 0.019
ali_ata@ubuntu:~/Desktop/working3/project3/project/serial$ ./ImageFilters.out input.bmp
Execution Time: 0.018
ali_ata@ubuntu:~/Desktop/working3/project3/project/serial$
```

parallel :

```
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.007
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.006
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.006
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.007
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.007
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.006
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.006
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.006
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.006
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.006
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.006
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.007
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$ ./ImageFilters.out input.bmp
Execution Time: 0.006
ali_ata@ubuntu:~/Desktop/working3/project3/project/parallel$
```

speed\_up :

$$speedup = \frac{\text{serial execution time}}{\text{parallel execution time}} = 0.018 / 0.006 = 3$$

تقریباً ۳ برابر افزایش سرعت خواهیم داشت.

خروجی نهایی :

