

#### Universidad de León

Grado de Ingeniería Informática

Arquitectura de computadores

# BENCHMARK RESULTS

Realizado por los alumnos Diego Fernández Velasco, Pablo de la Hera Martínez y Pablo Javier Barrio Navarro

Para el Profesor D. Miguel Ángel Conde.

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## **RESULTS OBTAINED**

The specifications for our PCs and the results obtained are the following ones:

> PC Diego Fernández → Intel(R) Core(TM) i7-8565U CPU (8th Gen)

1.80GHz 1.99GHz

12GB RAM

★ Fibonacci algorithm

	Fibonacci
Time 1	6000 µs
Time 2	14000 μs
Time 3	40000 μs
Time 4	200000 µs
Time 5	316000 µs
Average	Calculate  115200 µs  Reset

## ★ Black & White conversion:

Bla	ck & White	Imagen:
Time 1	202 ms	
Time 2	179 ms	-
Time 3	172 ms	
Time 4	180 ms	
Time 5	175 ms	200
Average	Calculate  181.6 ms  Reset	< > Load Images Save Images

# ightharpoonup PC Pablo de la Hera ightharpoonup Intel(R) Core(TM) i5-8250U CPU (8th Gen)

### 1.60GHz 1.80GHz

#### 12GB RAM

★ Fibonacci algorithm:

Fi	bonacci
Time 1	9000 μs
Time 2	23000 μs
Time 3	56000 μs
Time 4	236000 μs
Time 5	382000 μs
	Calculate
Average	141200 μs
	Reset

★ Black & White conversion:

Black Time 1 Time 2 Time 3	<b>&amp; White</b> 258 ms  236 ms  234 ms	Imagen:
Time 4	228 ms	
Time 5	Calculate	
Average	Reset	< > Load Images Save Images

## ➤ PC Pablo Javier Navarro → Intel(R) Core(TM) i7-6500U CPU (6th Gen)

#### 2.50GHz 2.59GHz

#### 12GB RAM

## ★ Fibonacci algorithm

	Fibonacci
Time 1	12000 µs
Time 2	36000 µs
Time 3	91000 µs
Time 4	433000 µs
Time 5	675000 μs
Average	Calculate 249400 µs
	Reset

★ Black & White conversion:

Bla	ck & White	T
Time 1	436 ms	Imagen:
Time 2	414 ms	
Time 3	432 ms	The state of the s
Time 4	460 ms	
Time 5	422 ms	
Average	Calculate  432.8 ms  Reset	< > Load Images Save Images

# Conclusions

- **Fibonacci algorithm:** based on the results obtained, we can say that Pablo Javier's PC, being a 6th generation, is the slowest processor doing the Fibonacci Algorithm (avg 249 400 microseconds), the other processors of 8th generation have more or less the same average time of 125 000 microseconds. (115 200 and 141 000).
- Black & White conversion: based on the results calculated, in this case, we do not detect so much difference between the three processors, maybe slightly. Best processor is Diego's processor with an average time of 181.6 milliseconds, then Pablo De La Hera's processor (237.8 milliseconds), and the worst was Pablo Javier's processors with an average of 432.8 milliseconds.