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Department of CS & Computer Engineering
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Group (4)

Computerists (6)

Create ALU and Control Unit

[Using logisim-evolution]

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Introduction:

considered as an arithmetic logic unit (ALU) is the main part of the central processing unit (CPU) of a computer system.

Where he performs all processes related to arithmetic and logic operations that need to be done on instruction words.

Also, the (CU) control unit is taken to be the processor brain because it issues orders to everything and ensures that the best results are produced, so simulations and studies of it have received great publicity,

and thanks to its amazing logisim program, it has become one of the most popular tools that facilitate design and simulation for (ALU)&(CU).

We provide a report on ALU and CU modelling using (logisim program)

The project has been designed with digital circuits, logic gates that are arranged in a certain fixed way to be sensitive to both initial start-up conditions.

Abstract:

The aim of implementing the project was to learn the construction of ALU and CU and understand how they work with each other,

Indeed, We Learned at This Project How to Do the ALU and The Control Unit Work and How to Build.

in General, We Gained the Skills to Build a Circuit Combinational Cause We Learned at This Project and How to Connect the Gates and the Wires and We Used Differents Gates and Plexers and Arithmetic Logic Gates.

Although Nevertheless, We Need to Try other Logic Gates Such as T Flip-Flop, D Flip-Flop and Register.

So, If We Got to Try to Build a CPU in the future, We Definitely Going to Work the Control and The Multiplexers and Registers and Memory and Counter (PC) etc.

And We Have to Build everything Separate and Collect It in One

And We Highly Recommend Anyone Is Going to Work on This Project to Read the Slides and Understand the Circuit and See How It's Connected to Each Other And Watch Any Video Explain the Program and How Is It Work,

And Watch How to Connect Everything to Each Other After Doing All This We Guarantee to You That You Going to Do the Full Project Within 4 Hours Max.