PCAE Computer Aided Environment Project

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Biography

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Born in the city of Apiaí, located in the state of São Paulo,Brazil He is currently majoring in Information Technology Management. He has some experience in the Industrial Automation area where he has already worked as an operator of an automated station for treatment and disposal of lathes waste. Has technical courses in C Sharp programming language but did not work on software development in a professional way being an amateur in areas such as electronics, robotics, and even in music where he plays violin, piano.

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Abstract
Again I've been gathering my ideas, forgive my inability to write

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Summary

Computing

Among the various areas that compose computing there is the simulation of events where certain events are simulated on the computer through mathematical equations to arrive at a certain optimal parameter. there are countless areas of simulating and ways of simulating for example through mathematical functions that simulate a simple system of variables. through graphs you can observe the behavior of the functions already designed it is interesting for the student to separate areas to study simulations from those of main interest as well as the most appropriate programs for this purpose such as autocad solidworks with graphics In 3d simulating complex study areas to set an example would be a high pressure gas turbine for use in rockets. where use in the real context becomes dangerous

Computer systems work in such a way that their microprocessors are constantly creating graphs as a function of time. That is, they generate mathematical functions that draw on the screen in x y e Z. One way to train software development for the optimization of these microprocessors would be to train the creation of graphics in excel and libreoffice

There was an increase in the production of integrated circuits electronics boards and with that complex systems appeared cheaper. Although with more than one integrated technology an example is the wifi, MEMS. When designing someone electronic system that uses wireless connections you can think simpler systems Instead of designing a wifi system with an amplified antenna or another microcotroller with a wifi connection of the ESP3266 type, you can use a wifi sd card for example, which already comes with an integrated wifi antenna, of course considering whether the range of the mini wifi antenna on the card sd

Another way to reuse current electronic systems would be to make inexpensive tests with electronics, reuse cell phone cards and lcd screens, batteries using serial usb communication, usart rs232 etc., then writing a catalog of cell phone cards or other easily reprogrammable ones. On current computers, you can install electronic simulator programs where you copy the complete or partial layout of the circuit board. You can redo circuits on the PC test programs. The idea would be to copy the circuitry of electronic boards in simulators and simulate the operation of the boards so you could reprogram the circuits in an easy way avoiding only errors and bugs, simulating programs on the hardware.

Perceives if in the current notebooks the presence of systems similar to on-chip where it is attached to the processor the communication with the gpu memory etc. integrated in the same processor.i could then Draw card with note processor without Chipset Memory ram next M2 sata or card sd Adapting on the pci bus programming as video memory Cheap coprocessors hdmi output Adapting expanders Optical communication Shielded parallel bus to develop parallel computing cheaply, or use cheaper notebook processors that do not need an external chipset on digital boards.

One way to implement computing concepts would be to search for various cudacore graphics processing instructions, antialiasing, V-sync, anisotropic filtering, textures and then design systems that simulate their use. Assumed if recordings of gameplays can be seen in practice using graphics processing

In the development of Computational systems it would be interesting to take advantage of the hardware that comes ready-made, such as video games. You can design systems that take advantage of Playstations 3, for example in Cluster format, where in each unit you can install a linux operating system and a midleware standard to control the machines.

It would be very interesting to develop Experiments to increase processing, such as acquiring neuromorphic computing boards where you can direct a neural network to perform a certain activity. Even quantum computing can now be simulated using appropriate software. Not to mention that there are inexpensive technologies to use such as Optical Communication for leisure, for example replacing the serial one, as in the case of SATA cables and certain areas of physics greatly influence computing as in the case of Superconductors.

An alternative in computer systems would be the parallel processing where it is possible to direct several bytes at once, which was very limited by magnetic interference, but using if optical transmitters / receivers, a higher speed is achieved only by requiring a PCI card that transforms the bus. parallel of video cards in optical communication which would allow the development of software to direct the processing to other networked machines. Another alternative would be to use parallel processing to use two Operating Systems on the same machine only by making control via hardware or even software with designed midleware.

As has been seen in other positions in this book by others, the need for information would be interesting to a computer with a LED board where computer information such as processing time, etc. would be transmitted. Visually larger in large letters so that the information could be transmitted safely.

In computing, hardware is often designed in such a way that it has a certain advantage to offer, such as with an HD, you can design an input and output switching board using optocouplers and a digital controller like a microcontroller that using flip-flops controls the inputs and outputs of a SATA cable and connect several different hard drives on the same cable. The same can be done with various Rams Memories in use as if they were an HD being controlled by a coprocessor, being interesting a software that took advantage of this hardware specifically designed to take advantage of, for example, allocating more memory to the processor in case more accurate latency is not required.

Among this type of program there is the guideline of Adapting the software to new technologies, it is important to extract points in favor and make use of coprocessing, for