

Low Power Logic Family

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Categories:

- Computer Technology

Keywords:

- CMOS
- Computer Hardware
- Computer Technology
- Logic Devices

Complementary Metal-Oxide Semiconductor (CMOS) is a battery powered semiconductor chip inside computers that stores information. CMOS requires a lot of power from the computer which in turn, reduces the computers battery life. Battery life technology has not been able to keep up with the other technology that requires the battery. Today, if you want power, you lose battery life, and if you want battery life, you lose power. There is a need for a way to reduce to power needed by the CMOS.

Researchers at Purdue University have developed a new, custom logic family that can be used to reduce to power needed by the CMOS. This new technology can run with a power supply down to near-threshold or sub-threshold levels. This will also reduce the energy used by the CMOS as well. This custom logic family is not as sensitive to die-to-die corner variations either. This new technology is more efficient than the current technology can offer and it reduces the power needed for the CMOS.

Advantages:

- Not as sensitive to die-to-die corner variations
- Efficient
- Requires less power

Potential Applications:

- Logic Families
- CMOS gates

People:

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Intellectual Property:

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