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Times of India



Newspaper Review by: Rajai
 Published: September 19, 2006

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Chipnology - Laser Chips.

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Intel, the world's largest chip maker, and the University of California, Santa Barbara has created a silicon-based chip that can produce laser beams that can transfer data using laser. The development is the result of research at Intel. The achievement will make it possible to use laser light rather than wires to send data between chips.

Wires are the most significant bottleneck in computing design as on date. That bottleneck will be removed now. As a result, chip makers may be able to put the high-speed data communications industry on the same curve of increased processing speed and diminishing costs – the phenomenon known as Moore's law – that has driven the computer industry for the last forty years.

The breakthrough was achieved by bonding a layer of light-emitting indium phosphide onto the surface of a standard silicon chip etched with special channels that act as light-wave guides. The resulting sandwich has the potential to create on a computer chip hundred thousands of tiny bright lasers that can be switched on and off billions of times a second.

Commercialisation of the new Chipnology (Chip+technology =chipnology! How is it?) may not take place until the turn of the decade, but the prospect of being able to place hundreds or thousands of data carrying light beams on standard industry chips is definite to stir up both the communications and computer industries. Lasers are already in use to transmit high volumes of computer data over longer distances – for example, between offices, cities and across seas – using fiber optic cables.

Bibliography Times of India