tesla

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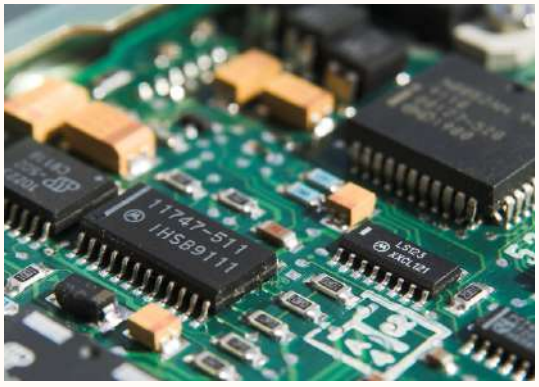
LBS INSTITUTE OF TECHNOLOGY FOR WOMEN,
POOJAPPURA, THIRUVANANTHAPURAM

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

~ NOURIN P NAZEER, 47, S8 ECE, 2021-2025

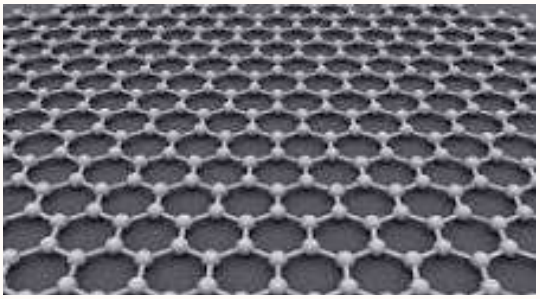
~ NANDANA A S, 43, S8 ECE, 2021-2025



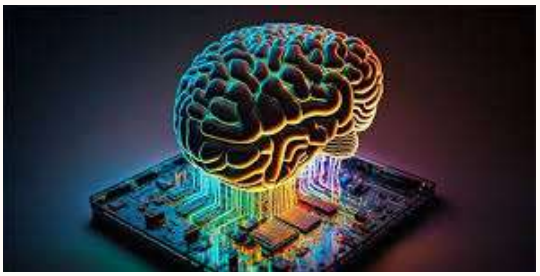
CONTEXT

DID YOU KNOW ?

- Graphene, a single layer of carbon atoms, is being used in electronics for its extraordinary electrical conductivity and strength. It's enabling ultra-fast transistors and advanced batteries.



- Inspired by the human brain, neuromorphic chips mimic neural networks to improve the efficiency of AI systems. They are designed to revolutionize machine learning applications.



THEJAS64

The Thejas64 SoC is a 64-bit single-core system-on-chip developed by the Centre for Development of Advanced Computing (C-DAC) in India. It is based on the open-source RISC-V instruction set architecture and is part of C-DAC's VEGA microprocessor initiative, which aims to create indigenous processors for various applications, including space exploration and defense.

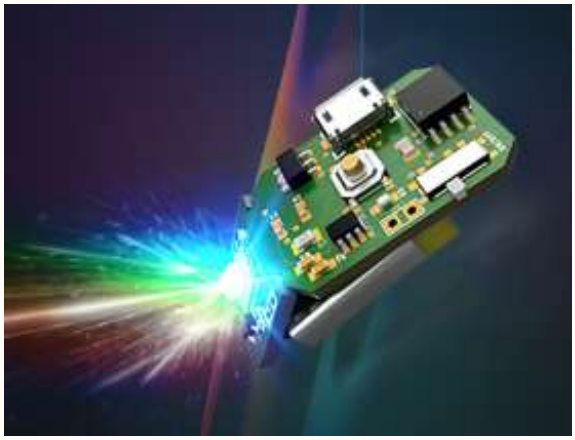
Thejas64 integrates the VEGA AS1061 processor core and includes peripherals such as internal SRAM, support for external memory interfaces, UARTs, SPI, timers, I2C interfaces, and GPIOs. This design makes it suitable for high-performance and reliable computing tasks required in satellite systems.

C-DAC's VEGA processors, including Thejas64, are designed to meet the stringent requirements of space applications, offering fault tolerance and reliability. The use of Thejas64 in satellite systems underscores India's progress in developing self-reliant technologies for critical sectors.

The Thejas 64 chip is used in SPADEX (Space Docking Experiment) by ISRO, providing the computational power required for critical operations such as autonomous docking, navigation, and communication between spacecraft. Its RISC-V architecture ensures efficient and reliable processing, making it ideal for the precision and real-time requirements of space docking maneuvers, a key technology for future collaborative and deep-space missions.

MATT+

MATT+ is the Most Advanced Thumb Tip ever created — a revolutionary, miniature Bluetooth remote designed for magicians, mentalists, and performers," the trio explain of their creation. "It's so small it can be discreetly hidden inside any standard thumb tip, making it virtually invisible. But that's not all! MATT+ can also be concealed in your palm, pocket, or even integrated into other accessories currently in development.



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WHAT'S AROUND LBS ???

PRECONCLAVE FOR INTERNATIONAL CONCLAVE 2025

The pre-conclave for the International Conclave on Next-Gen Higher Education (scheduled for January 14th and 15th at CUSAT) was held on January 9, 2025, and marked a significant step in preparing participants for global discussions on advanced education and technology. The event began with an inspiring address by Dr. Smithamol M B, Principal of LBSITW and Prof. Mujeeb Rahuman K, Convenor-IIC and Dr.Deepthi P S, Nodal Officer IEDC who emphasized the importance of International Conclave Next Generation Higher Education. Their speeches highlighted the need for innovation, global collaboration, and adaptability in the ever-evolving educational landscape. This insightful introduction set the tone for the day's sessions, fostering curiosity and enthusiasm among the participants.

VISION AND MISSION OF THE INSTITUTE

VISION OF THE INSTITUTE

To be the centre of academic excellence empowering women in the technical domain.

MISSION OF THE INSTITUTE

Imparting value based technical education to young women transforming them to professionals excelling globally in academics, research and development and industry meeting social challenges.

VISION OF THE DEPARTMENT

To become the centre of excellence in Electronics and Communication and Instrumentation and Computer Engineering to facilitate professional education and research keeping higher level of value systems.

MISSION OF THE DEPARTMENT

M1 : To transform young women to high quality engineers, entrepreneurs and researchers with ethical values.

M2 : To contribute creative engineering solutions to industry by keeping pace with latest technological advancements.

M3 : To provide intellectual services to the society by application of Electronics and Communication and Instrumentation and Computer Engineering.