

## WHY CAREER IN VLSI?

The vision of ISM (India Semiconductor Mission) is to build a vibrant semiconductor and display design and innovation ecosystem to enable India's emergence as a global hub for electronics manufacturing and design in a more structured, focused, and comprehensive manner through various mechanisms.

The Programme for Development of Semiconductors and Display Manufacturing Ecosystem in India was notified on 21.12.2021 with a total outlay of Rs. 76,000 crore by Prime minister. A demand in semiconductor industry in India is forecasted.



### Micron to set up \$2.75 billion semiconductor unit in Sanand To create 5,000 new direct and 15,000 community jobs in few years

American storage chip maker Micron will set up its semiconductor assembly and test plant at Sanand in Gujarat, creating a total investment of \$2.75 billion (around Rs. 22,500 crore), the company said on Thursday.

The total cost of the plant, comprising the 100% equity investment in the plant by Micron and the rest from the government in two phases, according to a statement given by the company.

"We are excited about the steps India is taking to develop the local semiconductor ecosystem," Micron President and CEO Sanjay Mehrotra said after meeting with Prime Minister Narendra Modi in Washington.

Micron's plant has been approved under the government's "Make in India" initiative. Testing, packaging and flash memory (NAND) will be produced at the plant.

Under the scheme, Micron will receive 50% fiscal support for the total project cost from the Indian central government and incentives representing 20% of the total project cost from the state of Gujarat.

"Phase-1 construction of the new assembly and test facility is expected to begin in 2022. Phase 2, which will include 500,000 square feet of planned cleanroom space, will become operational in late 2024," Micron said in a statement.

Micron said that the plant will create up to 5,000 new direct jobs and 15,000 community jobs over the next several years.

"The committed investment by Micron and the new government schemes create the synergy of skills, infrastructure, and support that will help India become a global hub for semiconductor manufacturing," said Sanjay Mehrotra, Micron President and CEO.

## PROGRAM OFFERED:

**B.E Electronics Engineering VLSI Design and Technology to cater the nations with intake of 60 was started at CBIT.**

## SPONSORED PROJECT:



The Design Fabrication and Development of Silicon Proven IP Core for High Resolution ADPLL". Sponsored by Ministry of Electronics and Information Technology (MeitY), Under Scheme of Chips to Startup (C2S)-Category-II,Phase-I.

Sanctioned amount: 1.91 Crores (INR) in association with Osmania University for development of logic to silicon process.

## AVAILABLE SOFTWARES:

Industry tools for VLSI development are available in the department.

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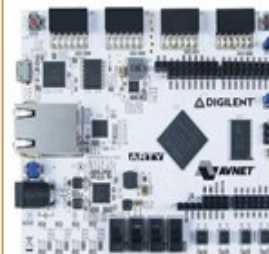
## AVAILABLE HARDWARES



Pynq Z2 Board



Boolean Board



Arty A7-100T



kria KV

## Prospects of the Undergraduate Course B.E. – Electronics Engineering (VLSI Design and Technology)

### Latest Developments in India the Field of Semiconductors:

Prime Minister Narendra Modi on 13 March, 2024 (Wednesday) virtually laid the foundation stone of three semiconductor projects worth about Rs 1.25 trillion, including the Rs 91,000 crore facility in Dholera, which will commence chip production by 2026. Two of the three facilities are located in Gujarat, whereas one is based in Assam. The three projects are the Semiconductor fabrication facility at the Dholera Special Investment Region (DSIR)

### Placement opportunities for VLSI Design Engineers and Pay Packages

#### ⇒ Major Companies that work in the Field of VLSI Design at India

- Intel Corporation
- Qualcomm
- Xilinx
- Nvidia Graphics Private Limited
- AMD

#### ⇒ Major Companies that work in the Field of VLSI Design Around the world

- Samsung Electronics
- Nvidia Corporation
- Taiwan Semiconductor Manufacturing company Limited (TSM)
- Intel Corporation (INTC)
- Broadcom Inc
- Qualcomm Inc (Qcom)
- SK Hynix Inc

#### ⇒ Types of VLSI Jobs in India

- Design Engineer
- Verification Engineer
- Physical Design Engineer
- Process Integration Engineer
- Test Engineer
- Product Validation Engineer
- Technical Manager

#### ⇒ Current Pay Packages of VLSI jobs in India

- 10 Lakhs/ Annum for a Fresher from an Engineering College
- 15 – 20 Lakhs/ Annum for Fresher from NITs/IITs
- 25 Lakhs/Annum for 5 years experienced Engineer
- 45 – 50 Lakhs/Annum for 10–15 Years Experienced Engineer